Project:
Updating a National Chemicals Management Profile, Development of a National SAICM Capacity Assessment and Holding of a National SAICM Priority Setting Workshop in Serbia
(MOA No: G.CWM.2007G32)

First phase of the project:
Updating a National Chemicals Management Profile

NATIONAL PROFILE FOR CHEMICALS MANAGEMENT
(Updated 2008)

Belgrade

The project “Updating National Chemicals Management Profiles, Development of a National SAICM Capacity Assessment, and Holding of a National SAICM Priority Setting Workshop” in Serbia was developed with the technical assistance of the United Nations Institute for Training and Research (UNITAR) and the financial support of the Strategic Approach to International Chemicals Management (SAICM) Quick Start Programme Trust Fund.

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INTRODUCTION TO THE NATIONAL PROFILE (NP)

International Context concerning the Chemicals Management

Sound chemicals management means that chemicals are produced and used in such a way to minimize the adverse effects to human health and the environment, as emphasized at the Earth Summit in Rio de Janeiro in 1992 in the Chapter 19, Agenda 21[1]. One of the six program areas for sound chemicals management was strengthening of national capabilities and capacities for management of chemicals. Two years later, in 1994, at the meeting of the Intergovernmental Forum on Chemical Safety (IFCS) aimed at monitoring implementation of activities referred to in Agenda 21, a recommendation was adopted to obtain insight in local possibilities and capacities concerning the chemicals management as well as to identify particular national needs through preparation of the National Profile.

Sound chemicals management represents also one of the objectives of the Implementation Plan of the World Summit on Sustainable Development held in Johannesburg in 2002, where 2020 was indicated as a deadline for fulfillment of the set objective. Aimed at supporting countries to achieve the set objective, a Strategic Approach for International Chemicals Management (SAICM) was adopted in the occasion of the International Conference on Chemicals Management held in Dubai in 2006.

SAICM is a global policy framework with an aim to coordinate and support a process leading to achievement of the set objective at the Earth Summit in 2002. SAICM was developed at the international level with the goal to support sound chemicals management as a basis for sustainable development, to contribute to the reduction of differences between the developed countries and developing countries i.e. countries with transition economies through increase of capacities for sound chemicals management. One of the SAICM's recommendations is preparation of National Profile for Chemical Management.

Ministry of Environment and Spatial Planning, governed by recommendations of global strategic documents, developed the National Profile for Chemicals Management within the scope of international project "Enabling activities for the development of a national plan for implementation of the Stockholm convention on persistent organic pollutants (POPs Project)", in cooperation with other government authorities and stakeholders. Global Environmental Facility (GEF) has donated finances for the implementation of this project. The implementation agency of this project is United Nations Environmental Program (UNEP).

The National Profile for chemical management represents the overall assessment of chemicals management in Serbia through the entire chemicals life cycle, from production to disposal and it presents the analysis of legal, institutional, administrative and expertise-technical aspect of chemicals management. This national document is a good base for adequate intersectoral coordination in chemicals management and identification and establishment of priorities in this area.

[1] Agenda 21: Earth Summit - The United Nations Programme of Action from Rio, 1993

For the purpose of further reviewing and regulating of chemicals area at national level as well as establishment of priorities for its improvement according to globally set goals, taking into account lack of regulations in this area and necessity of stronger intersectoral cooperation, Ministry of Environment and Spatial Planning, with UNITAR's help, asked for finance resources from SAICM Quick Start Programme Trust Fund for Project "Updating a National Chemicals Management Profile, Development of a National SAICM Capacity Assessment and Holding of a National SAICM Priority Setting Workshop in Serbia". This Fund approved 20.000 USD for the Project. One of the phases of the Project is Updating of National Profile for Chemical Management. Different government authorities responsible for chemical management as well as other stakeholders took part in preparing and updating of National Profile for Chemicals Management.

NP Objectives

The National Profile consists of 13 chapters, as proposed in the UNITAR guidance document[2] with specific objectives for each chapter:

Chapter 1: provides general country information;

Chapter 2: provides general information on chemicals' production, export, import and use;

Chapter 3: identifies priority problems and areas caused by chemicals production, import and use as well as concerns caused by chemicals presenting risks to the environment (air, soil, food pollutions) and their impact to human health;

Chapter 4: provides summary of regulatory framework concerning chemicals management, analyses the current regulations and regulations that are currently being drafted, provides summary of administrative procedures as well as policies directly or indirectly related to chemicals;

Chapter 5: describes and contains analyses of the jurisdictions of competent government bodies for certain stages within the chemical life-cycle;

Chapter 6: describes relevant activities implemented by the industry, research institutions and NGOs, which support efforts to manage chemicals;

Chapter 7: describes and provides some analysis of mechanisms, which facilitate coordination and cooperation among ministries, agencies and other relevant institutions in particular areas of chemicals management;

Chapter 8: provides an overview of availability of international and national literature and data basis regarding chemicals as well as procedures for data collection, dissemination and exchange;

Chapter 9: provides an overview of the available technical infrastructure, computer capabilities, review of laboratory infrastructure for chemical testing, list of accredited and certified laboratories for particular measurements, review of curricula dealing with the chemicals;

Chapter 10: provides an overview of the capacities in the country in relation to preparedness and response to chemical accidents;

Chapter 11: provides insights into membership in international organizations, list of focal points and contact persons for international agreements concerning chemicals management, summary of international technical assistance projects concerning chemicals;

Chapter 12: provides summary of the mechanisms available to provide information to employees and the public concerning the potential risks from chemicals to human health and the environment;

Chapter 13: provides an overview of human resources available and needed within the relevant bodies related to the sound chemicals management.

[2] UNITAR/IOMC, 1996. *Preparing a National Profile to Assess the National Infrastructure for Management of Chemicals: A Giudance Document*

Methodology

Aimed at POPs Project implementation, the Ministry of Environment and Spatial Planning of the Republic of Serbia has set a project office consisting of a director of the Project, assistant Minister for the Environmental Protection, Aleksandar Vesic and a project assistant, Marija Milinkovic, graduated lawyer., while Valentina Radjenovic, graduated chemists from Department for Chemicals is a person in charge on behalf of the Ministry of Environment and Spatial Planning and a focal point for the implementation of the Stockholm and Rotterdam Convention and SAICM. Considering the fact that the preparation of the National Profile for Chemicals Management represents one of the activities within the POPs project, the Commission for Selection of Consultants for terms of references implemented within the POPs project, and consisting of representatives of the Ministry of Environment and Spatial Planning and POPs project unit, through public competition selected Jasminka Randjelovic, M.Sc., graduated biochemist for the implementation of this terms of reference.

For preparation of this document UNITAR 1996 Guidance[3] prepared by the Inter-organization Program for the Sound Management of Chemicals (IOMC) and adopted by the International Forum for Chemicals Safety (IFCS) was used for the preparation of the National profile for the Chemicals Management as well as UNITAR 2003 Guidance[4].

In cooperation with the POPs office and in compliance with the Ministry of Environment and Spatial Planning the consultant engaged for the preparation of the National profile for the Chemicals Management prepared the methodology consisting of the following activities:

1. Review of the documentation for NP preparation and translation of the UNITAR guidance into Serbian language;

2. Identification of key institutions and individuals involved in the document designing and holding of a first meeting – National Planning Meeting. A list of participants, program and minutes from the meeting are placed on the web-site of the Ministry of Environment and Spatial Planning (www.ekoserb.sr.gov.yu), in the section concerning the POPs project (workshops, National Profile). Participants at the meeting learned about objectives and reasons for development of the National Profile for chemicals management as well as on contents and methodology of the document preparation. The most important conclusion from the meeting is consensus reached by all participants about the need to prepare this document and they stressed necessity of inter-sector cooperation concerning chemicals management; they understand preparation of the document as a forum for information exchange in this field; they expressed readiness to participate at the preparation of the National Profile for chemicals management actively; they evaluated that the National Profile for chemicals management should represent a competent national document for chemicals management, that could serve as the main document regarding definition of priorities aimed at chemicals management improvement in Serbia. Moreover, it is agreed that the National Profile includes the following chemical groups: pesticides, (in agriculture), chemical fertilizers, industrial chemicals, oil products, general chemicals and explosives.

3. Creation of a network of contact persons actively participating in provision of information during the NP preparation.

4. Preparation and sending of questionnaire to institutions involved in the document preparation as an information collection method.

[3] UNITAR/IOMC, 1996. *Preparing a National Profile to Assess the National Infrastructure for Management of Chemicals: A Giudance Document*

[4] UNITAR/IOMC/UNEP, 2003: *Preparing/Updatinga National Profile as Part of a Stockholm Convention National Implementation Plan, Companion Guidance Note - Working Draft*

5. Analysis and filling up of questionnaire.

6. Consultations with interested parties, organization of meetings in full or executive session, as appropriate, as well as through sending of specific questions by mail and e-mail;

7. Document drafting; Holding of the public discussion during the three-week period through the web-site of the Ministry of Environment and Spatial Planning - POPs Project;

9. Analysis of comments received at the public discussion and incorporation of comments into the draft document;

10. Holding of the wrap-up meeting in full session to present and adopt the final document by the Coordination Committee for the POPs Project implementation.

POPs chemicals within the National Profile

Considering that during the drafting process of the National Profile for the chemicals management, besides the UNITAR Guidance of 1996 UNITAR Guidance of 2003 was used as well, this document includes POPs chemicals management as a separate chemical group. 12 POPs chemicals included in the Stockholm Convention cover: pesticides, industrial chemicals and unintentionally produced POPs. The Chapter IV of this Document presenting the regulatory framework for chemicals management also includes POPs chemicals in Serbia covering industrial chemicals, pesticides and unintentionally produced POPs. In the summary of national programs and strategies, POPs chemicals are included in the Draft National Environmental Protection Program (2007 - 2016). The situation in the NGO sector has been analyzed concerning activities aimed at increasing awareness of workers and the public regarding risks associated with POPs chemicals to human health and the environment. The part of the National Profile regarding the technical infrastructure gives a list of laboratories provided with adequate technical capacities and delivering commercial services concerning POPs analysis along with the analytical equipment and type of accreditation. The summary of activities being implemented in Serbia has been prepared aimed at implementation of international contracts concerning chemicals, covering also those activities regarding the preparation for the ratification of the Stockholm Convention on POPs Chemicals. A review of participation of Serbia in international technical assistance projects has been prepared including UNEP-GEF Project aimed at preparation of the National Implementation Plan of the Stockholm Convention on POPs Chemicals as well as a review of projects financed from the Serbian National Investment Plan, including the project on preparation of the detailed PCB inventory, replacement of transformers and condensers containing PCB and their export aimed at their treatment. Other areas directly concerning the POPs chemicals will be analyzed in detailed in detached reports of consultants engaged on terms of references within the project for preparation of the Stockholm Convention National Implementation Plan.

Timeframe

ACTIVITIES	MONTH 1	MONTH 2	MONTH 3	MONTH 4	MONTH 5
Review of documentation for drafting NP and translation of UNITAR guidance	X				
Identification of key institutions and individuals	X				
Preparation of the questionnaire		X			

Organization and holding of the first meeting		X			
Filling up of questionnaire		X	X		
Analysis of data from the questionnaire			X		
Holding of meetings aimed at consulting process implementation			X	X	
Document drafting			X	X	
Internet public discussions				X	
Analysis of received comments				X	
Presentation of the final document on the wrap-up meeting and its adoption by the Coordination committee for the POPs Project					X

List of Institutions and Individuals participating in the NP preparation and updating

Different government authorities responsible for chemical management as well as other stakeholders took part in preparing and updating of National Profile for Chemicals Management

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I CHAPTER: BACKGROUND INFORMATION ON SERBIA

1.1. Geographic, Natural and Demographic Characteristics
1.2 Country Political/Geographic Structure
1.3 Industrial and Agricultural Sector
1.4 Employment in Main Industries

1.1 Geographic, Natural and Demographic Characteristics

Serbia is situated on the central part of the Balkan Peninsula, on the most important route linking Europe and Asia occupying an area of 88,361 square kilometers. Serbia is in the West European time zone (one hour ahead of Greenwich time). Its climate is moderate continental with gradual tension between the four seasons of the year. Serbia is referred to as the cross-roads of Europe and geopolitically an important territory. The international roads and railways passing down its river valleys make up the shortest link between Western and Central Europe, on the one side and the Middle East and Africa, on the other. These roads follow the course of the valley of the river Morava, splitting in two near the city of Nis. One truck follows the valleys of the rivers Southern Morava and Vardar to Thessaloniki; the other, the river Nisava to Sofia and Istanbul.

Rivers in Serbia belong to the Black Sea, Adriatic and Aegean basin. Three of them are navigable: Danube, Sava and Tisa. The longest river is Danube, which flows 588 km through Serbia out of its total of 2,857. The Danube basin has always been important for Serbia. With the commissioning of the Rhine-Main-Danube Canal in September 1992, the Black Sea and harbors of the Near and Far East have become much closer to Europe. Serbia is connected to the Adriatic Sea and Montenegro via Belgrade - Bar railway. Serbia's terrain ranges from plains in the northern Vojvodina region to mountains and hills in Central and South Serbia. The flatlands are in the Pannonian Plain and its rim: Macva, the Sava valley, the Morava valley, Stig and the Negotin Marches in Easter Serbia. Kosovo and Metohija are separated from neighboring Albania by mountain ridges of Prokletije, and Sar mountain from Macedonia, where two of highest Serbian mountain peaks are located: Djeravica and Black Summit. The Province is made up of two regions, which differ from each other in the soil content and climate and are divided by Cicavica and Crnoljevo mountains. The Serbian southern province has a varied relief: it is edged with mountainous wreaths, which are intersected, by canyons and very wide valleys of rivers Binacka Morava, Lab and Beli Drim. Kosovo is placed in the south-eastern and eastern part of the province, near the Morava-Vardar valley. It is primarily hilly land so that wealthy in ores is the main natural potential of the region. On the other hand, Metohija is placed in the west and north-west of the province and consists of fertile arable land, which significantly affect to its economy.

In Serbia, arable land covers 55% of the territory and woods cover 27%. 15 highest peaks reach the height of above 2,000, among which Djeravica on Prokletije Mountain is the highest (2,656 m).

Serbian border length amounts to 2,397 km. To the East Serbia borders with Bulgaria, to the North East with Romania, to the North with Hungary, to the West with Croatia, Bosnia and Herzegovina, Montenegro and to the South with Albania and Macedonia.

The ethnic composition of the population of the Republic of Serbia is very diverse, which is a result of the country's turbulent past. The majority of the population of Serbia is Serbs, but another 37 ethnicities also live on its territory. All citizens have equal rights and responsibilities and enjoy full ethnic equality.

The constitution of the Republic of Serbia guarantees rights to national minorities in conformity with the highest international standards. Based on the latest 2006 census, Serbia has the population of 7,411,569 (Kosovo and Metohija excluded), which is 92,3 % of the population of the former State Union Serbia and Montenegro. Serbs make 82,86% of the population, Hungarians 3,91%,

Bosnians 1,81%, Roma 1,44%, Yugoslavs 1,08%, Croats 0,94%, Montenegrins 0,92%, Albanian 0,82%, Slovaks 0,79%, Vlachs 0,53%, Romanians 0,46%, Macedonian 0,34%, Bulgarian and Vojvodina Croats 0,27% each, Muslims 0,26%, Ruthenians 0,21%, Slovenian and Ukrainians 0,07% each, Gorani 0,06%, Germans 0,05% and Russians and Czechs 0,03% each.

The official language in Serbia is Serbian and the script in official use is Cyrillic, while Latin script is also used. In the areas inhabited by ethnic minorities, the languages and scripts of the minorities are in official use.

The dominant religion in Serbia is Orthodox Christianity. The Serbian Orthodox Church, which has been autonomous since 1219, has played an important role in development and preservation of the national identity. Besides the Serbian Orthodox Church, there are also other religious communities in Serbia: Islamic, Roman Catholic, Protestant, Jewish, etc.

All data in tables are without Kosovo.

Table 1.1: Background Information
(Source: Serbian Statistical Yearbook for 2007, Serbian Statistical Authority and Federal Geodetic Authority, 1953)

Territory (in sq.m.):	88,361
State system:	Republic
Official language(s):	Serbian language and languages of the national minorities in the areas inhabited by those minorities
Number of inhabitants in 2006:	7,411,569 (Kosovo and Metohija excluded)
Population density / 1sq. km in 2006:	95.7
Contribution of urban to the total population (in 2006 in %):	57.52
Contribution of agronomic to the total population (in 2002 in %):	10.9
Average age of the population in 2006:	40.74 men 39.41 women 41.99
Natural population trends (per 1,000 citizens) in 2006	live-born - 9.6 deceased - 13.6 natural population growth - 4.3
Life expectancy in 2006	boys 70.6 girls 75.9
Average level of education i.e. years of schooling:	9.3
Illiterate (%) in 2002:	3.4 (older than 10)
Unemployment rate in 2006:	21.6
Percentage of employed women out of their household in 2006:	40.1

Data on agronomic population from the 2002 census include: workers in the agriculture, fishery and forestry (manufacturing for the market), farmers (producing for own needs) or manual workers in the agriculture, fishery or similar, according to the International Standard Classification of Occupation (MSKZ-88), as well as all non-self-supported family members.

1.2 Country Political/Geographical Structure

Administratively and territorially, the Republic of Serbia is divided into provinces, districts, municipalities and City of Belgrade. The Republic of Serbia contains two autonomous provinces: Vojvodina and Kosovo and Metohija as units of the territorial autonomy.

Territorial organization of the Republic of Serbia consists of 194 municipalities with local self-governments and 29 districts. City of Belgrade and City of Nis represent separate territorial units. There are 6168 settlements in the Republic of Serbia.

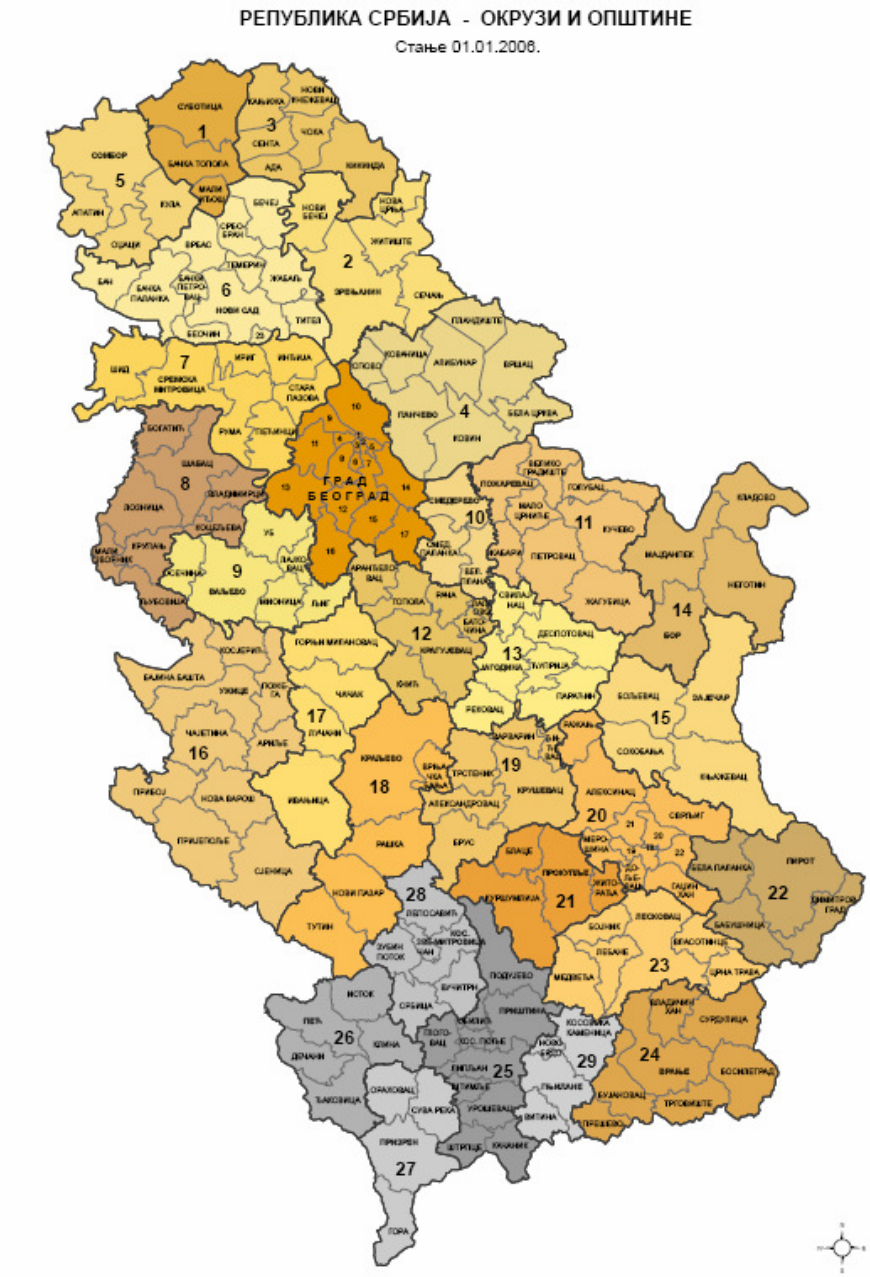
Vojvodina. Vojvodina makes almost one quarter of the Serbian territory or 21.506 square kilometers. Novi Sad is the administrative, economic and cultural seat of the province. Vojvodina consists of 45 municipalities and 7 districts, whose seats are Subotica, Zrenjanin, Kikinda, Pancevo, Sombor, Novi Sad and Sremska Mitrovica.

Kosovo and Metohija. Kosovo and Metohija is an autonomous province within the Republic of Serbia and based on the United Nation Security Council Resolution 1244, which was adopted on June 10, 1999, it is under the interim civil and military administration of the UN. The UN Security Council approved at a session held on October 24, 2005 in New York the beginning of negotiations in the future status of Kosovo and Metohija that are ongoing. Kosovo and Metohija consists of 29 municipalities and 5 districts, with seats in Pristina, Pec, Prizren, Kosovska Mitrovica and Gnjilane.

Table 1.2: Territorial Division of Serbia (01/01/2006)

	Total	Central Serbia	Vojvodina	Kosovo and Metohija
Districts	29	17	7	5
Municipalities	194	120	45	29
Settlements	6,168	4,252	467	1,449
Urban settlements	207	129	52	26
Local communities	4,503	3,499	549	455

Territorial division of Serbia



Name of Territory	Area (sq.m.)	Municipalities	Settlements	Urban Settlements	Other Settlements
City of Belgrade	3,227	17	166	27	139
Macva district	3,269	8	228	5	223
Kolubara district	2,474	6	218	7	211
Danube-basin district	1,251	3	58	3	55
Branicevo district	3,865	8	189	5	184
Sumadija district	2,388	7	174	5	169
Morava-basin district	2,614	6	191	6	185

Zajecar district	3,623	4	173	5	168
Zlatibor district	6,142	10	438	11	427
Morava district	3,016	4	206	5	201
Raska district	3,922	5	359	9	350
Rasina district	2,667	6	296	5	291
Nis district	2,728	8	285	8	277
Toplice district	2,231	4	267	4	263
Pirot district	2,761	4	214	4	210
Jablanica district	2,770	6	336	7	329

1.3 Industrial and Agricultural Sector

Table 1.A: Overview of the Industrial and Agricultural Sector
(Source: Serbian Statistical Yearbook 2007, Republic Statistical Authority)

Sector	Contribution to the Gross Domestic Product (in %) in 2006	Number of Employees by Sectors in 2006	Main Products in each Sector
Industrial/Manufacturing Sector[1]	17.5%	33.52%	Food and beverage, electricity, gas and hot water, chemical substances and chemical products, metal products, machinery and equipment, tobacco products, coal, rubber and plastic products, clothing, etc.
Agricultural Sector[2]	11.5%	4,04%	All products from the primary agricultural production

[1] According to the Economic Classification as of January 1, 2001 the Industry includes sectors C, D, E, whereas the C sector is Mining and Extraction, Sector D - Industrial processing and Sector E - Generation and supply of electricity, gas and water.
[2]This sector includes activities of the Sector A and B of the Economic Classification, whereas Sector A includes agriculture, hunt and forestry and Sector B - fishery.

Table 1.B: Structure of the Manufacturing/Agricultural Sector in 2006
(Source: Republic Statistical Authority, Department for Statistical Registers and Standards - Statistical Business Register)

Economic Code	**Sector**	Size of Companies according to Number of Employees				
		Total	Big firms[1]	Medium firms[2]	Small firms[3]	Micro firms[4]
A+B	Agricultural Sector	3630	30	223	493	2884

A 01	Agriculture	3385	27	195	462	2701
A 02	Forestry	133	2	1	6	124
A 03	Water	38	1	24	10	3
B 05	Fishery	74	-	3	15	56
C	Mining and Extraction of Coal	214	11	21	27	155
C 10,11,12	Extraction of energy raw materials	18	3	1	-	14
C 13,14	Extraction of other raw materials except energy	196	8	20	27	141
D	Processing industry	16,479	331	1,058	2,794	12,296
D 15-16	Food, Beverage and Tobacco Production	2,832	83	243	465	2,041
D 17-18	Production of Textile and Textile Products	1,501	38	116	297	1,050
D 19	Leather Processing and Leather Goods Production	304	7	39	62	196
D 20	Processing of Wood and Wood Products	1,135	4	39	183	909
D 21-22	Production of Paper and Paper Products; Printing	2,448	16	78	343	2,011
D 23	Coke and Petroleum Derivates Production	38	2	2	5	29
D 24	Chemical Products and Fibers Production	738	19	62	114	543
D 25	Rubber and Plastic Products Production	929	15	46	160	708
D 26	Production of Non-metallic Mineral Products	631	22	59	115	435
D 27-28	Production of Metal and Metal Products	1983	39	124	397	1,423
D 29	Fabrication of other Machinery and Equipment, not mentioned	776	22	64	136	554
D 30-33	Fabrication of Electric and Optical Equipment	1,712	21	79	274	1,338
D 34-35	Production of means of transportation	307	32	38	50	187
D 36-37	Other Processing, not mentioned	1,145	11	69	193	872
E	Generation and Supply of Electricity, Gas and Water	270	27	101	75	67

Size of the company according to number of employees:
[1]BIG: more than 250 employees
[2]MEDIUM: 50 – 249 employees
[3]SMALL: 10 – 49 employees
[4]MICRO: 0 – 9 employees

Sector	Number of companies (Micro+Small+Medium+Big)
Industrial Sector (Sectors C+D+E)	16,963 (22,25 %)
Agricultural Sector (Sector A)	3,630 (4,76 %)
Total number of companies	76,234

Table 1.C1: Breakdown of Main Agricultural Production
(Source: Serbian Statistical Yearbook 2007, Serbian Statistical Authority)

Major Crops	Size of Productive Area (in ,000 of hectares in 2006)	Production in ton in 2006
Corn	1,172	6,016,765
Wheat	543	1,875,335
Sunflower	187	384,945
Alfalfa	188	1,104,287
Soya	157	429,639
Clover	121	548,436
Barley	94	275,640
Potato	84	930,305
Sugar beet	72	3,188,905
Bean	23	54,585
Tomato	21	189,222
Pepper	19	177,255
Tobacco	7	10,808
Rye	7	15,417

Table 1.C2: Breakdown of Fruit Trees and Fruit Production

Fruit	Trees, 000 in 2006	Production in ,000 t in 2006
Plum	46,111	556
Apple	16,521	240
Sour cherry	9,826	80.5
Pear	5,361	58
Peach	4,491	59.1
Cherry	1,983	23.3
Walnut	1,966	23.8
Apricot	1,787	21.9
Quince	1,076	10.4

Table 1.C3: Breakdown of Livestock in Agricultural Companies, Cooperatives, Private Farms and Non-agricultural Households

Cattles and Poultry	,000 heads in 2006
Pig	3,212
Sheep	1,609
Bovine	1,096
Goat	139
Horse	19
Poultry	17,905

Table 1.D: Breakdown of Industrial Production by Regions

Data are not available, considering the fact that the Republic Statistical Authority does not track industrial production by districts, only by municipalities (breakdown by regions is not in use as of 1991).

1.4 Industrial Employment by Major Economic Sectors

Table 1.E: Industrial Employment by Major Economic Sectors (in 2006)

Economic Code	Sector	Number of companies[2]	Number of Employees [3]	Major Emission (Chemical type)
C	Mining and Extraction of Coal	214	36,792	CH_4, COD, suspended particles
D 15-16	Food, Beverage and Tobacco Products	2,832	87,474	BOD, COD, fats
D 17-18	Production of Textile and Textile Products	1,501	41,432	Cr, BOD, COD, fats, sulfide
D 19	Leather Processing and Leather Goods Production	304	11,926	Cr, BOD, COD, fats, sulfide
D 20	Processing of Wood and Wood Products	1,135	11,019	particles, NMVOC
D 21-22	Production of Paper and Paper Products; Printing	2,448	26,621	SO_2, NMVOC, Zn, Al, BOD, COD,
D 23	Coke and Petroleum Derivates Production	38	981	NMVOC, fats, TOC
D 24	Chemical Products and Fibers Production	738	26,852	NMVOC, fats, TOC
D 25	Rubber and Plastic Products Production	929	21,316	NMVOC, fats, TOC
D 26	Production of Non-metallic Mineral Products	631	24,988	particles, asbestos, suspended particles
D 27-28	Production of Metal and Metal Products	1,983	53,174	Zn, Cr, Ni, Cu, Cd, As, suspended particles
D 29	Fabrication of other Machinery and Equipment, not mentioned	776	33,264	NMVOC, Zn, Cr, Ni, Cu, Cd, As, cyanide
D 30-33	Fabrication of Electric and Optical Equipment	1,712	30,481	
D 34-35	Production of means of transportation	307	31,115	
D 36-37	Other Processing, not mentioned	1145	21,178	
E	Generation and Supply of Electricity, Gas and Water	270	47,532	SO_2, NO_2, CO_2, particles
TOTAL		16,963	506,145	

[1] The Economic Classification as of January 1, 2001 includes activities of sectors C, D, E, whereas the C sector is Mining and Extraction, Sector D - Industrial processing and Sector E - Generation and supply of electricity, gas and water.

[2] Data source: Department for Statistical Registers and Standards - Statistical Business Register, Republic Statistical Authority

[3] Number of employees in companies, institutions, cooperatives and other organization regardless the ownership structure. It includes employees in small enterprises (up to 50 employees) not covered by routine surveys.

Data Source: Semi-annual reports on employees and wages from the Survey in the Annex to the semi-annual report on employees and wages, Republic Statistical Authority

Table 1.F: Waste Water from Industry, according to the media to which it is released (in 2006.)[1)]

Economic Code[2)]	Sector	Waste Water released into the Surface Water[3)] (1 000m^3)	Waste Water released into the soil[3)] (1 000m^3)	Total amount of the Trated Waste Water (1 000m^3)	Total amount of Waste Water (1 000m^3)[4)]
D 15	Food production	11,003	5,371	9,520	26 796
D 17-19	Production of Textile and Textile Products Leather Processing and Leather Goods Production	659	43	566	2 026
D 20,22	Processing of Wood and Wood Products; Printing	83	108	102	751
D 21	Production of Paper	3,340	716	3,153	4,223
D 23-25	Production of Coke,Chemicals and Plastic Products	12,952	4,657	3,207	22,714
D 26	Production of Non-metallic Mineral Products	3,178	268	1,126	6,808
D 27	Production of Metals	43,113	32	37,932	45,407
D 29	Fabrication of other Machinery and Equipment, not mentioned	537	414	433	3,583
D	Other Manufacturing Industry	818	705	1,274	7,027
C 10-14	Mining and Extraction of Coal	3,684	330	2,754	4,834
E 40	Generation and Supply of Electricity	2,902,360	6,032	180,133	2,911 607
TOTAL		2,981,727	18,676	240,200	3,035 776

[1] Data source is regular yearly statistical research on Use of water in industry in sectors C, D and E, which is performed by Environmental Protection Department within the Republic Statistical Authority

[2] The Economic Classification as of January 1, 2001 includes activities of sectors C, D, E, whereas the C sector is Mining and Extraction, Sector D - Industrial processing and Sector E - Generation and supply of electricity, gas and water.

[3] Treated and not treated

[4] Total amount of waste water released into the soil, surface water and public canalization.

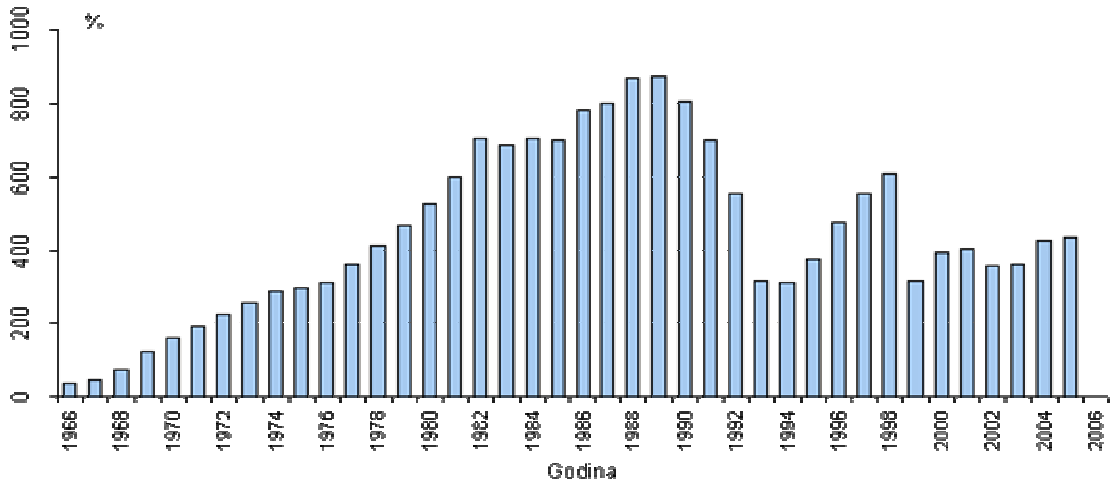
II CHAPTER: CHEMICALS PRODUCTION, IMPORT, EXPORT, STORAGE AND DISPOSAL

2.1 Chemicals Production, Import and Export
2.2 Chemical Use
2.3 Chemical Waste
2.4 Overview of facilities producing, using, trading, storing and disposing of dangerous chemicals
2.5 Overview of waste recycling facilities

2.1 Chemicals Production, Import and Export

The chemical industry plays a very important role in the total industrial output and foreign trade in Serbia. This is indicated by data on contribution of the production of plastic and rubber products and petroleum derivates amounting to 21.5 % of GDP compared to the overall industrial output in 2004 as well as contribution of 18 % of the overall value of the foreign trade in Serbia. Today the chemical industry meets domestic needs in terms of wide range of products, from basic alkaline substances such as petroleum and gas derivates, industrial chemicals (inorganic and organic), intermediate products and finished chemical goods whose number is continuously growing (fertilizers, pesticides, drugs, detergents, cosmetic preparations, paint, adhesive, etc.).

Chemicals and Chemicals Products Production Development in Serbia
(production volume index for the period from 1966 to 2005, alkaline index 1945=0%)
(data from the web-site of the Serbian Association of Chemists and Chemical Engineers www.shts.org.yu)



During its development, the Serbian chemical industry has had three extremely successful periods – the first one during the 60s when majority of existing capacities for production of alkaline inorganic chemicals were put into operation; the second one in the period between 1975 and 1982, when all the efforts were focused on development of alkaline petrochemical industry and the third one in the period from 1987 to 1990, when record-high national production and consumption levels were achieved. In late 80s, the line of production of local chemical industry covered 7,000-8,000 of various chemical goods amounting to 8-10 million tons of the total annual production volume.
The last decade of the 20th century was characterized by a difficult period faced by the chemical industry in Serbia. The period started with negative consequences of the break down of the former Yugoslavia causing reduction of the local market and loss of several important chemical intermediates produced in Croatia, Slovenia, Bosnia and Macedonia, followed by upsurge of the civil war, firstly in Croatia and then in Bosnia, which caused the introduction of sanctions by the United Nation towards the newly-formed FR Yugoslavia. Although the sanctions were lifted in 1995, consequences of numerous difficulties were huge – chemical goods production volume in

1998 amounted to 35% of the production volume in the record-high 1989. Unfortunately, that was not the end – culmination happened in early spring 1999 with the NATO bombing to Serbia. During 78 days of NATO bombing, great number of plants in Pancevo, Lucani and Baric were almost completely destroyed. Particularly huge economic and incalculable ecological damages happened in Pancevo, where plants for production of chlorine, VCM and ammoniac were bombed and heavily damaged.

Table 2.A: Production of Chemical Substances in Serbia
(Data Source: Republic Statistical Authority)

Chemical Classes	**Production** in tons in 2006
Pesticides[1]	6,157
Fertilizing Agents[2]	487,129
Industrial Chemical Substances[3]	1,527,383
Petroleum Products[4]	3,481,864
General Chemicals[5]	107,590
Explosives[6]	/
TOTAL	5,610,123

The nomenclature is based on the Classification of Economic Activities in the EU, so-called NACE classification, where five-digit code (sub-section) refers to products produced within that particular economic activity.

[1]**Pesticides:** include products under the code **24200** (production of pesticides and other chemical substances for the agriculture)

[2]**Fertilizing Agents**: include products under the codes **24150.30** (nitrogenous, mineral or chemical fertilizers); **24150.40** (phosphorous fertilizers, mineral or chemical); **24150.50** (potash, mineral or chemical fertilizers); **24150.80** (other fertilizers, mineral or chemical).

[3]**Industrial chemicals**: include products under the code **24110** (production of industrial gasses); **24120** (production of paints and pigments); **24130** (production of other basic inorganic chemicals); **24140** (production of other basic organic chemicals); **24150.10** (aqua fortis, sulphonitric acid, ammonia); **24150.20** (ammonium chloride, nitrite, potassium nitrite, triamonium phosphate, ammonium carbonate); **24300** (production of paints, lacquers, etc. varnishes and putty).

[4]**Petroleum products**: include products under the code **23201** (petroleum derivates production) and **23202** (production of bitumenic materials).

[5]**General chemicals**: include products under the codes **24510** (production of soaps and detergents, washing preparations and polishing agents); **24520 (**production of perfumes and toilette products; **24630 (**production of essential oils).

[6]**Explosives**: include products under the code **24610** (production of explosives). Considering the fact that unit measures for some products codes within the group of explosives very a lot (kg, pieces, meter), it was not possible to provide the overall figures.

2.1.1 Major Manufacturers of Chemical Products in Serbia

(Source: Serbian Chamber of Commerce - Association for Chemistry, Pharmacy, Rubber Industry and Non-metal Industry and Ministry of Environment and Spatial Planning - Department for Chemicals

Pesticides and other Agrochemicals:

GALENIKA FITOFARMACY, Zemun; ZUPA, Krusevac; CHEMICAL AGROSAVA, Belgrade; ZORKA - PLANT PROTECTION, Sabac; ZORKA -MINERAL FERTILIZERS, Sabac; DELTA AGROCHEMISTRY, Belgrade; DUOCHEM, Belgrade; VETERINARY MEDICINE INSTITUTE,

Subotica; HEMOVET, Novi Sad; ZORKA KLOTILD – AGROTEHNOHEM, Subotica; JUGOHEM, Leskovac, IHP PRAHOVO, Prahovo; BV COMERC, Novi Sad, AGRO-HEM, Novi Sad; HI POLJOTOPLICA, Nis; MONADA LAB, Belgrade; RTB BOR FOUNDRY AND RAFINATION OF COPPER (TIR), Bor.

Fertilizing Agents:
HIP AZOTARA, Pancevo; AGROHEM, Novi Sad; AZOTARA, Subotica; IHP Prahovo, ZORKA - MINERAL FERTILIZERS, Sabac; AZOHEM, Subotica; ZITOMEDIA, Kula, EKOMINERAL, Smederevo; ZORKA KLOTILD 1904, Subotica; FERTIL, Backa Palanka.

Inorganic Acids and Salt:
Sulphuric Acid: RTB BOR- TIR, Bor; ZORKA, Sabac
Phosphoric Acid: IHP-Prahovo; ZORKA, Sabac;
Chlorine Hydride: PETROHEMIJA, Pancevo; ZUPA, Krusevac; ZORKA-CHLORINE HYDRIDE, Sabac
Nitric Acid: HIP AZOTARA, Pancevo; PRVA ISKRA - NAMENSKA, Baric
Hypohlorite: PETROHEMIJA, Pancevo; ZUPA, Krusevac
Sulphate: ZORKA, Sabac; ZUPA, Krusevac; ZORKA - MINERAL FERTILIZERS, Sabac; RTB BOR - TIR; IHP Prahovo; MARKING, Uzice
Phosphate: IHP-Prahovo
Silicate: GALENIKA MAGMASIL, Zemun; SPEKTAR, Krusevac
Precious-Metal Salt: RTB BOR - Salt Factory, Bor

Alkalies and Chlorine:
PETROHEMIJA, Pancevo; ZUPA, Krusevac

Industrial gas:
MESSER TEHNOGAS, Belgrade; LINDE GAS SRBIJA Gas industry, Bečej; HIP AZOTARA, Pancevo; Methanol-Acetic Complex, Kikinda RTB-BOR - TIR, Bor;

Basic Alkaline Substances:
Methanol-Acetic Complex, Kikinda, PKS LATEX, Cacak, BRIXOL, Vrsac

Basic Petrochemical Products:
PETROHEMIJA, Pancevo; NIS-PETROLEUM RAFINERY PANCEVO, Pancevo; SYNTHETIC RUBBER, Elemir

Polymers and pitches: HIP PETROHEMIJA, Pancevo; HIPOL, Odzaci; CERPROM, Aleksinac; PKS LATEX, Cacak; DUGA, Belgrade; HINS, Novi Sad etc.

Soaps, Synthetic Detergents, Cleaning and Polishing Agents:
ALBUS, Novi Sad; BEOHEMIJA, Belgrade; BISER, Kumane; BRIKSOL, Vrsac; HEMIK, Kikinda; HEMODOM, Sremska Kamenica; HEMOPRODUKT, Krusevac; HENKEL-MERIMA, Krusevac; HINS, Novi Sad; PANONIJA, Pancevo; SIMCHEM, Vranjska Banja; SLAVICA PARAPHARM, Subotica; HIMOM, Novo Milesevo; SPEKTAR, Krusevac, etc.

Cosmetic products:
AURA, Nis; „MARTINOVIC“, Belgrade; BEOLAB LABORATORIJA, Belgrade; DCP HEMIGAL, Leskovac; BIOMELEM, Belgrade; BONES GROUP, Belgrade; DAHLIA, Belgrade; GALENIKA, Belgrade; INTERCHEM, Jagodina; LONDESSA YU, Cacak; LUXOL, Zrenjanin; NEVENA, Leskovac; PHARMANOVA, Belgrade; „STANCIC“, Bor; STEVAN STILL, Belgrade; YUCO HEMIJA, Backi Jarak; BISER, Kumane; HEMIK, Kikinda, etc.

Paints and Lacquers:

IBL DUGA, Belgrade; ZORKA COLOR, Sabac; ZVEZDA HELIOS, Gornji Milanovac; TORDA ZVEZDA, Gornji Milanovac; PRVI MAJ, Cacak; TIGAR – CHEMICAL PRODUCTS, Pirot; NEVENA, Leskovac; POMORAVLJE, Nis; HEMPRO-COLOR, Sid; JUGOHEM B.S. Nova Pazova; BOJANA, Belgrade; MAXIMA, Lucani; SILEX, Pancevo; PITURA, Belgrade; DELFIN, Belgrade; SUKO, Pirot; KOTROMAN, Mokra Gora; JUB, Simanovci, etc.

Explosives:
MILAN BLAGOJEVIC, Lucani; PRVA ISKRA-NAMENSKA PROIZVODNJA, Baric; TPAYAL Corporation, Krusevac

Essential Oils:
"JOSIF PANCIC", Belgrade; ADONIS, Soko Banja; KIRKA, Belgrade; MENTA, Padej; MELISA, Apatin, etc.

Table 2.B: Import and Export of Chemicals in 2006 and 2007
(Source: Ministry of Finance - Custom Administration, IT Sector)

Custom trading number	Import 2006		Export 2006	
	net mass, t	good value, (EURO)	net mass, t	good value, (EURO)
27	949,852,555.88	903,913,531.19	189,026,337.44	54,079,693.84
28	186,072,362.63	56,728,227.43	117,097,518.18	12,305,354.28
29	62,210,600.21	118,900,887.41	261121376.9	125,447,643.66
31	494,521,621.49	90,363,377.50	30,309,910.25	5,372,071.61
32	54,347,121.26	85,250,736.25	69,522,548.66	25,064,586.12
33	24,242,043.02	128,765,088.04	1,311,895.56	5,622,293.49
34	90,096,025.38	106,360,527.83	21,433,188.18	16,226,918.71
36	1,529,851.14	3,205,482.23	1,638,693.65	3,898,619.91
38	6,769,077.39	6,769,077.39	789,833.97	2,831,139.95
Total	1,869,641,258.40	1,546,134,162.40	692,251,302.74	250,848,321.59

Custom trading number	Import 2007		Export 2007	
	net mass, t	good value, (EURO)	net mass, t	good value, (EURO)
27	1,188,440,609.63	1,045,295,653.88	219,815,877.24	66,938,707.77
28	242,536,174.54	69,080,993.93	166,443,647.89	16,999,036.72
29	68,239,432.11	138,422,894.45	337158686.5	181,647,384.12
31	653,471,989.45	139,413,269.74	95,583,861.60	16,713,790.04
32	66,441,474.78	109,337,078.46	124,029,946.10	46,520,897.07
33	27,110,954.66	160,065,903.48	2,024,326.90	9,116,231.77
34	95,964,210.73	125,232,326.90	46,671,147.62	39,800,822.05
36	2,620,267.45	5,306,750.49	2,523,753.40	3,959,020.45
38	8,292,631.53	60,947,349.48	1,536,354.43	5,009,358.70

Total	2,353,117,744.88	1,853,102,220.81	995,787,601.63	386,705,248.69

Classification of products into custom tariffs is done in compliancy with the Law on Custom Tariffs (Official Gazette 62/05), so that chemical classes included in the National Profile are classified under appropriate tariff number.

2.2 Chemicals Use

2.2.1 Use of Pesticides and Fertilizers

The Republic Statistical Authority does not collect systematically data concerning use of pesticides and fertilizers in Serbia (in kg/ha of arable land), so data are not published in the Serbian Statistical Yearbook. Existing data are not relevant because not reflecting the actual state on the market.

The Plant Protection Department of the Ministry of Agriculture, Forestry and Water Management do not have available data on use of fertilizers and pesticides in past couple of years. Currently there is monitoring on pesticide retail sale (since April 2006) and a methodology on collection of data on wholesale pesticide sale that go directly to end users. Moreover, the Plant Protection Department is working on the reform of the records on sale of pesticides to agricultural pharmacy through the system of cash registers.

The import and export value broken down **by goods sectors** in conformity with the Standard International Trade Classification.
(Data source: Statistical Year Book 2007, Serbian Statistical Authority)

	Export in 2006, (mil. USD)	Import in 2006, (mil. USD)
Raw Materials (fuel excluded)	278	627
Mineral Fuel and Lubricants	225	2,595
Chemical Products	**650**	**1,867**

The import and export value broken down **by Classification of Business Activities** within the Law on Classification of Activities and the Register of the Classification Units («Official Gazette of FRY», No. 31/96 and 74/99).
(Data source: Statistical Year Book 2007, Serbian Statistical Authority)

	Export in 2006, (mil. USD)	Import in 2006, (mil. USD)
Production of Coke and Petroleum Products	130	664
Production of Chemical Substances and Chemical Products	**640**	**1,818**
Production of Rubber and Plastic Products	460	375

2.3 Chemical Waste

2.3.1 Inland Movement of Waste

Table 2.C1: Inland Movement of Wastes in the Period from 01/01/2007 to 31/12/2007
(Source: Recycling Agency of the Republic of Serbia)

Type of Waste	Quantity (t/pcs/m^3)
Lead-acid accumulators (AA 170)	8,572.40 t
Tyres (GK 020) as an energy source in the cement industry	5,308.92 t
Tyres (GK 020) as an alternative fuel	2,175 peaces
Chemical gyps (AB 140) as an secondary raw material in the cement industry	23,936.68 t
Pyrite slag (AB) as an secondary raw material in the cement industry	15,863.25 t
Granulated slag (GC 070) as an secondary raw material in the cement industry	147,187.30 t
Slag from oils combustion (AB 010) as an secondary raw material in the cement industry	181,809.76 t
Slag, ash and residues from aluminium industry (AA110) as an secondary raw material in the cement industry	577.11 t

2.3.2 Transboundary Movement of Waste

Data on transboundary movement of waste is recorded as a planned quantity, according to the license on import/export of waste issued by the Ministry of Environment and Spatial Planning. Data on actual quantity of imported/exported waste is noted according to the records submitted by the Custom Authority.

Table 2.C2: Source of Dangerous Waste in the Period from 01/01/2007 to 31/12/2007
(Source: Recycling Agency of the Republic of Serbia)

Type of Waste	Planned quantity	Actual quantity
Electronic equipment with hazardous materials (AA)	500.00 t	23.94 t
Residues from aluminium production (AA 110)	1,000.00 t	495.69 t
Lead-acid accumulators (AA 170)	not planned	184.99 t
Wastes which mainly contain inorganic constituents and may contain metals and organic constituents (AB)	160.00 t	not confirmed
Wastes which may contain either organic or inorganic constituents (AD)	0.5714 t	not confirmed
Wastes from the production of pharmaceutical products (AD 010)	125.71 t	89,87 t
Industrial waste (AD 090)	100.00 t	not confirmed
Waste contaminated with PCB (RA 010)	500.00 t	27.79 t

Table 2.C3: Import of inert waste in the period from 01/01/2007 to 31/12/2007
(Source: Recycling Agency of the Republic of Serbia)

Type of Waste	Planned quantity	Actual quantity
Used toner cartridges waste which do not contain dangerous materials (GA)	320,000 pcs.	273,419 pcs.
Copper waste and scrap (GA 120)	17,739.99 t	78.83 t
Aluminium waste and scrap (GA 140)	29,716.66 t	3,867.43 t

Zinc waste and scrap (GA 160)	300,00 t	not confirmed
Iron and steel waste (GA 430)	163,800.00 t	2,208.97 t
Waste from platinum metals (GA 020)	not planned	0.0038 t
Plastic waste (GH)	11,096.77 t	328.57 t
Paper waste (GI)	204,414.29 t	271.20 t
Textile waste (GJ)	3,975.00 t	245.40 t
Granulates waste rubber tire (GK 010)	1,833.33 t	129.35 t
Used pneumatic tires (GK 020)	204,366 pcs.	83,017 pcs.

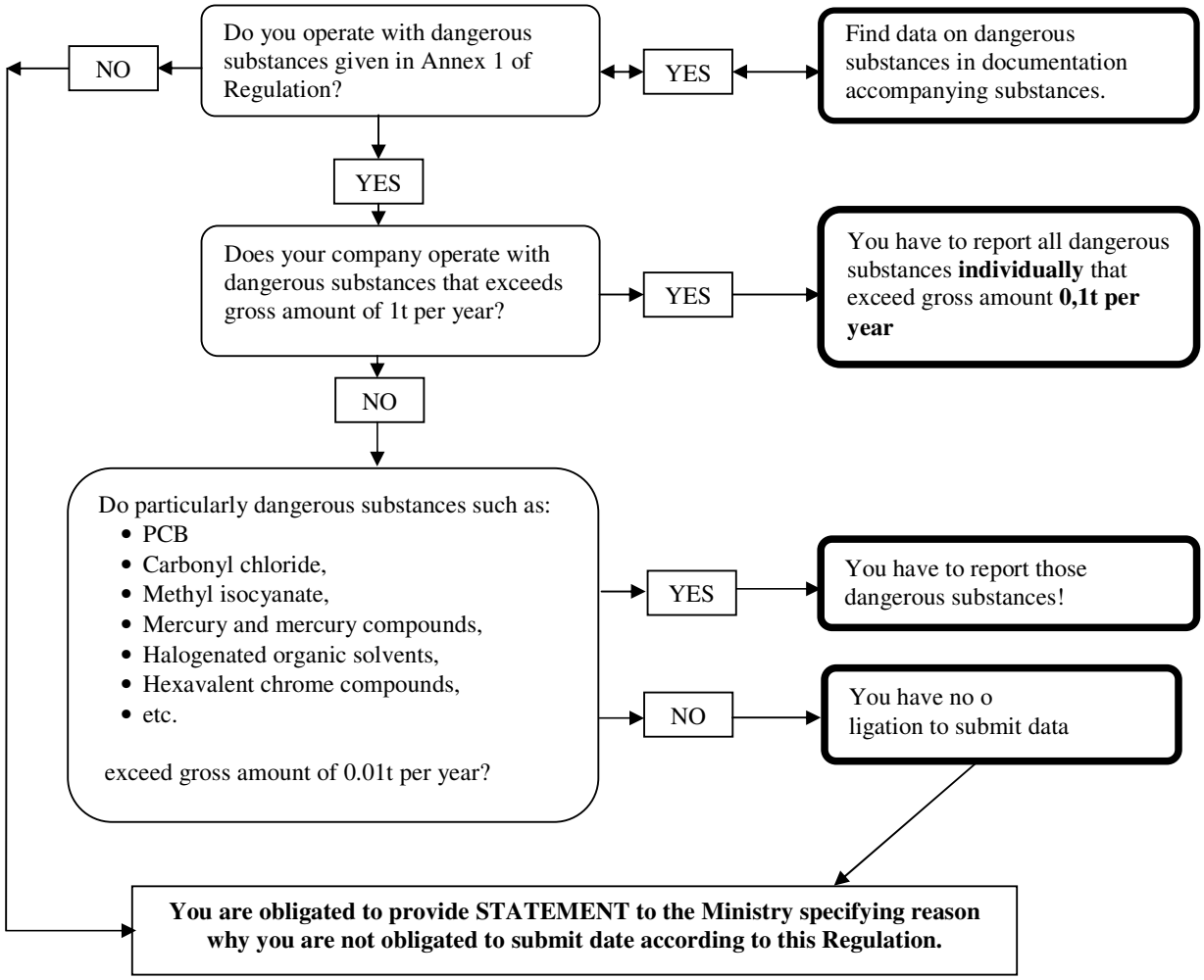
Table 2.C4: Export of inert waste in the period from 01/01/2007 to 31/12/2007
(Source: Recycling Agency of the Republic of Serbia)

Type of Waste	Planned quantity	Actual quantity
Metal and metal alloy waste (GA)	1,533.33 t	not confirmed
Platinum Catalysts (GA 020)	0.0617 t	0.0926 t
Copper waste and scrap (GA 120)	44,437.85 t	2,862,01 t
Aluminium waste and scrap (GA 140)	56,310.49 t	9,770.02 t
Iron and steel waste (GA 430)	1,340,612.75 t	315,278.69 t
Zinc waste and scrap (GA 160)	1,597.50 t	110,55 t
Electronic equipment (GC 010)	83.33 t	not confirmed
Used car catalysts waste (GC 060)	75,000 pcs.	not confirmed
Glass waste (GE)	43,166.67 t	9,785.63 t
Ceramic waste (GF)	390.83 t	24.14 t
Plastic waste (GH)	21,423.33 t	671.65 t
Granulates waste rubber tire (GK 010)	300.00 t	not confirmed
Used pneumatic tires (GK 020)	3,800.00 t	66.50 t
Paper waste (GI)	150,246.67 t	11,994.94 t
Textile waste (GJ)	550.00 t	not confirmed
X-ray films waste (GO)	25.00 t	not confirmed
Photographic film waste (GO 040)	16.67 t	not confirmed
Other waste which mainly contain inorganic contents and may contain metals or organic materials (GG)	666.67 t	not confirmed

2.4 Overview of facilities that produce, use, trade, storage and dispose of dangerous chemicals

According to the Law on Environmental Protection (Official Gazette RS, No. 135/04) legal or physical person that carries out activities that involve or could involve one or more dangerous substances in quantities equal or grater than prescribed and which could cause accident should prepare accident risk assessment. By law that will regulate this area is in preparation phase. At the moment this area is regulated by Regulations on methodology for assessment of risks of chemical accidents and environmental pollution through preparedness and measures regarding elimination of consequences ("Official Gazette of RS", No. 60/94 and 63/94) which prescribes obligation for facilities to take records on dangerous substances and obligation to submit data until January 31st for the previous year.

Scheme review of data submitting according to mentioned Regulation:



Based on data submitted by companies, the electronic database is formed and maintained by Department for accidents of Ministry of Environment and Spatial Planning.

Table 2.D: Overview of facilities that produce, use, trade, store and dispose of dangerous chemicals
(Source: Environmental Inspection)

No	Name and address of company	Sector	Average annual quantity of dangerous goods (t)	Decision on approval of chemical accident risk assessment (yes/no). Plan for chemical accident protection (yes/no).
1.	A.D."DUGA", Viline vode 6, Belgrade	chemical industry	15,702 140 pieces	no
2.	A.D. "GALENIKA" Batajnicki drum bb Zemun, Belgrade	pharmaceutical industry	938	no
3.	GALENIKA FITOFARMACIJA, Batajnicki drum bb, Zemun Belgrade	pesticides production	467	yes
4.	AD "FRIKOM", Zrenjaninski put bb, Belgrade	food industry	274	no
5.	JKP"BEOGRADSKI VODOVOD I	production of water	1,089,749	Decision on approval 25.04.2005.

	KANALIZACIJA" Makis, Obrenovacki put bb, Belgrade			Plan is not prepared
6.	JKP "BEOGRADSKI VODOVOD I KANALIZACIJA" Banovo Brdo, Ljeska 82, Belgrade	production of water	64	no
7.	JKP "BEOGRADSKI VODOVOD I KANALIZACIJA" Bele Vode, Vodovodska 158, Belgrade	production of water	492	no
8.	AD BIP "MOSTAR" FABRIKA PIVA I SLADA, Vojvode putnika 5, Belgrade	production of beer	268	yes
9.	D.O.O. RAFINERIJA NAFTE, Pancevacki put 83, Belgrade	oil derivates	5,252	no
10.	AD ″VRENjE″ Radnicka 3, Belgrade	production alcohol and yeast	144 t 1092 m3 800 l	yes
11.	AD ″IMLEK″ BEOGRAD Industrijsko naselje bb, Padinska Skela	production milk and milk products	1,237	no
12.	NIS "JUGOPETROL" BEOGRAD, storage TNG-a Ovca	transport and trade of natural and liquid gas	145,729	Decision on approval 06.03.06. Plan is not prepared
13.	AD "TEHNOHEMIJA" Vilino Vode 47, Belgrade	chemical industry	110	no
14.	AD "TEHNOHEMIJA" Vilino Vode 47, Belgrade, storage Dobanovci	chemical industry	5	no
15.	AD "TEHNOHEMIJA" Vilino Vode 47, Belgrade, storage Nis	chemical industry	4	no
16.	AD "TEHNOHEMIJA" Vilino Vode 47, Belgrade, production plant, Lestane	chemical industry	16	no
17.	NIS PETROL-JUGOPETROL Radnicka 5 Cukarica, Belgrade	oil derivates	275,000	yes
18.	"DjUKAPOL" d.o.o. Autoput 22, Zemun	production of sponges	10	Decision on approval 27.12.2007. Plan is not prepared
19.	"PITURA" Slobodana Bajica 1, Zemun Polje	production of paints and varnishes		Decision on approval 14.06. 2007. Plan is not prepared
20.	PD TENT D.O.O. Obrenovac, TENT A Bogoljuba Urosevica Crnog 44, Obrenovac	production of thermoelectric energy	24,057	Positive opinion on elaborate in 2002.
21.	PD TENT D.O.O. Obrenovac, TENT B Bogoljuba Urosevica Crnog 44, Obrenovac	production of thermoelectric energy	9049 t 38601 l	Positive opinion on elaborate in 2002.
22.	PD TENT D.O.O. Obrenovac, TE Kolubara, Veliki Crljeni 3. Oktobar 146, Veliki Crljeni, Lazarevac	production of thermoelectric energy	4,536	In procedure
23.	PD TENT D.O.O. Obrenovac, TE"MORAVA" Svilajnac, Djure Djakovica 63	production of thermoelectric energy	2,478	no
24.	"HIP-Petrohemija" a.d. Spoljnostarcevacka 82,	chemical industry	943,318	In procedure

	Pancevo			
25.	NIS AD NOVI SAD NIS PETROL RAFINERIJA NAFTE PANCEVO Spoljnostarcevacka 199, Pancevo	oil industry	5,665,690	In procedure
26.	"HIP-AZOTARA" Spoljnostarcevacka 82, Pancevo	chemical industry	382,045	In procedure
27.	A.D. "ŽUPA" Sandora Petefija bb, Krusevac	chemical industry potassium compounds	1,940	no
28.	A.D. "ŽUPA" Sandora Petefija bb, Krusevac	chemical industry flotation products	706	no
29.	A.D. "ŽUPA" Sandora Petefija bb, Krusevac	chemical industry pesticides	454	no
30.	A.D. "ŽUPA" Sandora Petefija bb, Krusevac	chemical industry	251	no
31.	″TRAYAL″ Krusevac, Milosa Obilica bb	production of explosives and pyrotechnics	5,666	no
32.	″TRAYAL″ Krusevac, Milosa Obilica bb	production of protection products	66	no
33.	″TRAYAL″ Krusevac, Milosa Obilica bb	production of cargo and industrial pneumatics	5,381	no
34.	″TRAYAL″ Krusevac, Milosa Obilica bb	chemical industry and non-metals	921	no
35.	″Henkel Merima″ Stanoja Atanackovica bb, Krusevac	chemical industry	13,374	no
36.	Holding "IHP Prahovo" AD Prahovo, Prahovo	chemical industry		no
37.	NIS Petrol, Jugopetrol - Instalacija "Prahovo" u Prahovu	oil industry		Decision on approval 02.10.2007. Plan is prepared
38.	AD " HOLCIM" Paracin	cement industry	338,505	no
39.	AD "ZVEZDA-HELIOS" Radovana Grkovica 24, 32300 Gornji Milanovac	Production of paints and varnishes	6,791	no
40.	RTB BOR-GRUPA RUDNICI BAKRA DOO, Kestenova 8, Bor	Non-ferrous metal mining	4,668,905	no
41.	Pogoni RTB-a BOR, Djordja Vajferta 20-29, Bor	production of sulfuric acid	8,115	To reconsider 07.04.06. Elaborate is not submitted for reviewing
42.	RTB BOR-GRUPA RUDNIK BAKRA MAJDANPEK , Svetog Save 2, Majdanpek	production of copper ore and concentrates	1,908,618	no
43.	RTB BOR GRUPA TIR FABRIKA SOLI I METALA Save Kovacevica, Bor	production of metal salts	78	Decision on disapproval
44.	NIS AD NOVI SAD NIS PETROL RAFINERIJA NAFTE, Put Sajkaskog odreda 4, Novi Sad	oil industry	1,188,297	In procedure
45.	"ZORKA" Mineralna djubriva A.D.	chemical industry	77,782	no

	Hajduk Veljkova 1, Sabac			
46.	"ZORKA" Zastita bilja A.D. Hajduk Veljkova bb, Sabac	chemical industry	81	no
47.	A.D. "ZORKA COLOR" Hajduk Veljkova bb, Sabac	chemical industry	538	no
48.	Hemofarm Koncern „Zorka-Pharma“ Hemija a.d. Sabac, Hajduk Veljkova bb, Sabac	chemical industry	650	no
49.	U.S. Steel Serbia, D.O.O. u Sapcu, Hajduk Veljkova bb, Sapcu	production of steel	1,178,304	no
50.	HK "VISKOZA" AD , Holding cantar, Gradiliste bb, Loznica	production of cellulose	13,473	no
51.	DP ″RUDNICI I TOPIONICA″ZAJACA LOZNICA, Jovana Cvijica 11, Loznica	minerals industry	19,500	no
52.	AD "MESSER TEHNOGAS" Banjicki put 62, production of Smederevo, location in Radin	production of technical gases	415,754	yes
53.	U.S Steel Serbia, D.O.O Goranska 12, Smederevo	production iron and steel		no
54.	NIS A.D. Novi Sad, Nis PETROL NIS Jugopetrol - instalacija Smederevo, Djure Salaja 19, 26000 Smederevo	trade of oil and oil derivates	158,391	In procedure
55.	DOO "VAPEKS" Konjevici Cacak	production of plastic	941	Decision on approval 28.05.07. Plan is prepared
56.	AD "PRVI MAJ" CACAK Nikole Tesle 9, Cacak	chemical industry	236,649	no
57.	AD "PKS-LATEKS-HLC" CACAK Nikole Tesle 1, Cacak	chemical industry	871	no
58.	AD "METANOLSKO SIRCETNI KOMPLEKS" Milosevacki put bb, Kikinda	chemical industry	207,900	no
59.	"ALBUS" a.d. Privrednikova 10, Novi Sad	chemical industry	368	no
60.	"HIPOL" Industrijska zona, Odzaci	chemical industry	45,579	Positive opinion on elaborate in 1998.
61.	"VITAL" Marsala Tita 1, Vrbas	food industry	297,102 t 3,000 l 7,168,000 Nm3	no
62.	AD "DIJAMANT" Temisvarski drum 14, Zrenjanin	food industry	2,518 t 7,062,697 m3	no
63.	AD "LIVNICA" Milosevacki put 34, Kikinda	metal production and processing	42 t 423 l	no
64.	Production of synthetic caoutchouc, Elemir	production of synthetic rubber	154,076 t 150 closed capacitors	In procedure
65.	DOO "Briksol" kucna hemija, Dubrovacka bb, Vrsac	chemical industry	647	no
66.	"HEMOFARM KONCERN" A.D. Belgradeski put bb, Vrsac	pharmaceutical-chemical industry	10,800,942	no
67.	Doo "Zorka Klotild 1904“	chemical industry	643	no

	Edvina Zdovca 8, Subotica			
68.	Koncern "Farmakom MB" Sabac, Gradina 3, Sombor	production of accumulators	11,355 t 80,200 l 600,120 m3	no
69.	AD "Apatinska pivara", Trg Oslobodjenja 5, Apatin	food industry	18,468	yes
70.	"Krusik" Akumulatori Vladike Nikolaja Velimirovica 67, Valjevo	production accumulators	52	no
71.	A.D. "RUMAGUMA" Industrijska bb, RUMA	production of rubber	1,104	no
72.	AD Messer Tehnogas - Dusana Popovica 24, Nis	production of technical gases	20,545	Decision on approval 19.06.2006. Plan is not prepared
73.	FHI "ZDRAVLjE"A.D. Vlajkova 199 Leskovac	Pharmaceutical-chemical industry	46	no
74.	DPHI "NEVENA" Djordja Stamenkovic bb, Leskovac	chemical industry	9	no
75.	AD FAP KORPORACIJA 29 oktobar, Priboj	metal production and processing	91	no
76.	AD "VALjAONICA BAKRA" Prvomajska bb, Sevojno	metal production and processing	9,392	no
77.	AD "IMPOL SEVAL" Prvomajska bb, Sevojno	production of aluminium	1,485	no
78.	AD "ALFA-PLAM" Radnicka 1, Vranje	chemical industry	909	no
79.	AD "HIV" Omladinskih brigada 11, Vranje	chemical industry	45	no
80.	AD "MILAN BLAGOJEVIC" Namenska Radnicka bb, Lucani	chemical industry	48,281	no
81.	DOO "TIGAR-TEHNICKA GUMA" Nikole Pasica 213, Pirot	production of rubber	17	no
82.	DOO "TIGAR OBUCA" 22 Divizije 10, Pirot	Processing of caoutchouc	390	no
83.	DOO "TIGAR TYRES" Nikole Pasica 213, Pirot	Processing of caoutchouc	15,026	no
84.	DOO "TIGAR HEMIJSKI PROIZVODI" Nikole Pasica 213, Pirot	chemical industry	339	no
85.	AD "FAM" Jug Bogdanova bb, Krusevac	production of lubricants	16,313	no
86.	"VICTORIAGROUP" a.d. "VICTORIA OIL" Branka Erica 2, Sid	production of bio-diesel oil	447,824	In procedure
87.	NIS AD NOVI SAD, Ogranak NIS TNG Elemir, Proleterska bb, Elemir	Energetic		no
88.	AD "AGROHEM" Ribarska 3, Novi Sad	chemical industry	2,729	no
89.	DOO "JUKOHEMIJA" Cara Lazara bb, Backi Jarak	chemical industry	29	no

90.	DOO "HEMOVET" Industrijska zona bb, Backi Petrovac	production of pesticides	10	Positive opinion on elaborat 2004.god
91.	DOO "SINTELON" Industrijska zona bb, Backa Palanka	chemical industry	9,045	no
91.	AD "FIM" Kanjiza Put Narodnog heroja 12	production insulator materials	56	In procedure
93.	AD "NEOPLANTA" Primorska 90, Novi Sad	Meat processing	494	no
94.	DOO "TARKETT" Industrijska zona bb, Backa Palanka	Plastic processing	1	no
95.	AD "HANPLAST" Surdulicki put bb, Vladicin Han	chemical industry	65,000	no
96.	DOO "SIMPEN" Industrijska zona bb, Bujanovac	production of sponges	678	Decision on approval 23.10.2006. Plan is not prepared
97.	JP "MATROZ" Jaracki put bb, Sremska Mitrovica	production of cellulose and paper	117	no
98.	NIS Petrol Jugopetrol-instalacija "NIS" , Bulevar 12. february 159, Nis	oil derivates	150	yes

2.5 Overview of Facilities for Recycling of Chemicals

Table 2.E: Overview of Facilities for Recycling of Chemicals
(Source: Recycling Agency)

Location of facility	Description of the facility, operation or process	Recovery operation (R code)	Does the facility treat wastes imported? Yes/No
FPM "Beograf" , Kumodraska 290, Beograd	Recycling of plastic waste	R5	No
"Borverk eurotrade", Mike Alasa 40, Beograd	Recycling of plastic waste	R5	No
Livnica "Pobeda", Kralja Aleksandra 435, Beograd	Recycling of metal (iron) waste	R4	No
"Uniraj", Milenka Kusica 6, Beograd	Recycling of textile waste	R5	Yes
"Livnica A i T", Tosin Bunar 268, Novi Beograd	Recycling of metal (iron) waste	R4	No
"Taspromet", Krtinjska 1, Beograd, Obrenovac	Recycling of rubber waste	R5	No
Fabrika kartona Umka, 13. Oktobra 1, Umka, Beograd	Recycling of paper waste	R5	Yes
"Termovent" a.d. SC-Livnica celika, Industrijska zona bb, Backa Topola	Recycling of metal waste (iron)	R4	No
"Interkord", Beogradski put 242, Subotica	Recycling of plastic waste	R5	No

"Aniplast", Horgoski put 109, Subotica	Recycling of plastic waste	R5	Yes
"Le Belier", Milosevacki put 34, Kikinda	Recycling of metal waste (aluminium)	R4	No
"Kikinda" A.D. Livnica, Milosevacki put bb, Kikinda	Recycling of metal waste (iron)	R4	Yes
"Lepenka" , Cara Dusana 45, Novi Knezevac	Recycling of paper waste	R5	No
"Krtola", Jabucki rit bb, Pancevo	Recycling of rubber waste	R4	Yes
"Papulic", Karadjordjeva 2, Pancevo	Recycling of textile waste	R4	Yes
"Karton", Ambrozija Sarcevica, Sombor	Recycling of paper waste	R5	No
Fabrika akumulatora "Sombor", Gradina 3, Sombor	Recycling of metal waste (accumulators)	R4	No
Beocinska cementara Lafarge, Trg BFC 1, Beocin	Rubber incineration Recycling of slag	R5 R5	No
"Autotehnik Vejic", Novosadski put 44, Veternik	Recycling of rubber waste	R5	Yes
"Pneutek", Blok 99 bb, Vrbas	Recycling of rubber waste	R5	Yes
"Nova Guma", Industrijska bb, Ruma	Recycling of rubber waste	R5	Yes
"Borojevic", Sremska 1, Majur, Sabac	Recycling of rubber waste	R5	Yes
"YU Kraiburg", Fruskogorska 8, Bacinci	Recycling of rubber waste	R5	Yes
Rudnici i topionica "Zajaca", Jovana Cvijica 11, Loznica	Recycling of metal waste (lead)	R4	Ne
"Dunja karton", Vojvode Putnika 6, Sabac	Recycling of paper waste	R5	No
AD livnica "Ljig", Ljig	Recycling of metal waste	R4	No
"U.S.Steel Serbia", Goranska 12, Smederevo	Recycling of metal waste (iron)	R4	No
"034", Dragoslava Sredojevica 89, Kragujevac	Recycling of metal waste	R4	Yes
"Livnica Feniks", Kosanciceva 92, Cuprija	Recycling of metal waste (aluminium)	R4	No
Holcim (Srbija) a.d. Cementara, Popovac	Rubber incineration Recycling of pyrite slag, phospho gyps, ash	R5 R5	No
"Metal Cinkara", Kneza Milosa bb, Cuprija	Recycling of metal waste (zinc)	R4	No
"Mip Livnica", Kneza Milosa 200, Cuprija	Recycling of metal waste (iron)	R4	No

"Cementara Titan", Zivojina Misica bb, Kosjeric	Recycling of slag waste	R5	No
Industrijski kombinat "Guca", 31210 Guca	Recycling of metal waste (iron)	R4	No
"Livnica"Pozega", Bakoinicka 14, Pozega	Recycling of metal waste (iron)	R4	No
"Livnica FAP" , Prijepolje	Recycling of metal waste (iron)	R4	No
"Impol-Seval" , Prvomajska bb, Sevojno	Recycling of metal waste (iron)	R4	Yes
Valjaonica bakra, Prvomajska bb, Sevojno	Recycling of metal waste (copper)	R4	Yes
"NITI" , Gruzanska 3, Gornji Milanovac	Recycling of textile waste	R5	No
"Zlatna nit", Jovanke Radakovic 30, Gorni Milanovac	Recycling of textile waste	R5	No
"Bozo Tomic", Industrijski prolaz 18, Cacak	Recycling of paper waste	R5	No
"Quatro kompani", Cacak	Recycling of rubber waste	R5	Yes
"Papirpak", Preljina, Cacak	Recycling of paper waste	R5	Yes
"Rolna", Ljubic 617, Cacak	Recycling of paper waste	R5	No
"Panco", Kragujevacki bataljon 34, Vrnjacka banja	Recycling of plastic waste	R5	No
"SNG Kompani" , Koste Stamenkovica 9, Nis	Recycling of plastic waste	R5	No
"Nissal" , Bulevar Svetog cara Konstantina bb, nis	Recycling of metal waste (aluminium)	R4	Yes
"Auto-Mirko 2", Maloplanska 16, Prokuplje	Recycling of rubber waste	R5	Yes
Livnica "Leskovac", Leskovac	Recycling of metal waste (iron)	R4	No
Ekotank, Proleterske solidarnosti 21d, Beograd	Sludge tretment from oil industry	R9	No
Bioprimat, Zlatiborska 37, Zemun, Beograd	Recycling of waste vegetable oil and fats	R9	No
Ekometal, Grobljanska 2, Vrdnik	Recycling of electronic waste and photographic devices (solutions)	R4 R5	No
Bozic i sinovi, Arsenija Carnojevica bb, Omoljica, Pancevo	Recycling of electronic waste	R4 R5	No
Rafinerija nafte Beograd, Pancevacki put 83, Beograd	Renfinment of used oil	R9	No
Univerzal Jovanovic, Glavicki put bb, Paracin	Recycling of metal waste	R4	No

RTB TIR, Djordja Vajferta 20-26, Bor	Recycling of metal waste (copper)	R4	No
“Perihard Inzenjering”, Knjeginje Zorke 24, Beograd	Recycling of toner cartridge	R5 R4	No
“Ribon cms”, Dobropoljska 29, beograd	Recycling of toner cartridge	R5 R4	No
“Image-Z”, Knez Miletina 7/1, Beograd	Recycling of toner cartridge	R5 R4	No
“Ribon commerce”, Balkanska 30, Kragujevac	Recycling of toner cartridge	R5 R4	No
“Alfa ribon”, Adzine livade 5, Beograd	Recycling of toner cartridge	R5 R4	No
“VHP Sistem”, Dragoslava Popovica 11, Beograd	Recycling of toner cartridge	R5 R4	No
“Proteus”, Futoska 30/1, Novi Sad	Recycling of toner cartridge	R5 R4	No
“TRS Swiss production”, Rade Koncara 1, Petrovaradin	Recycling of toner cartridge	R5 R4	Yes

III CHAPTER: PRIORITY CONCERNS IN TERMS OF CHEMICALS PRODUCTION, IMPORT, EXPORT AND USE

3.1 Priority Concerns in terms of Chemicals Production, Import, Export and Use
3.2. Comments and Recommendations

3.1 Priority Concerns in terms of Chemicals Production, Import, Export and Use

Table 3.A: Description of Problem Areas

Nature of Problem	City/Region	Brief Description of Problem	Chemical(s)/Pollutant(s)
Air pollution and soil contamination from thermo-electric power plants	Kolubara coal basin (thermo-electric power plant "Nikola Tesla" A and B and Kolubara A with installed capacities of 3,160 MW) Kostolac coal basin with installed capacities of 1,007 MW	Air pollution caused by obsolete and inefficient technology of combustion and poor-quality lignite. No desulphurization plant or reduction of azote oxide emission is present. Besides the air pollution, a significant problem represents the soil polluted by ashes generated in big quantities due to the poor-quality lignite combustion. The thermo-power plants in Serbia create more than 6 million tons of fly ash annually not stored adequately causing secondary emission of pollutants in the air. Such ash disposal covers the territory of approximately 1.800 ha.	Kolubara coal basin emits 162,000 t SOx, 38,280 t NOx and more than 18,000 t particles annually. Kostolac coal basin emits 100,000 t SOx, 8,770 t NOx and 6,340 т particles annually. Big quantities of ashes not stored adequately causing secondary emissions of air pollutants. Heavy metals registered in sedimentary materials, ashes from deposited sites and in total suspended particles
Air Pollution from NIS - Petroleum Refinery, NIS Petrochemical Industry and HIP Azotara Company	Pancevo	Air pollution caused by obsolete and non-efficient technologies, lack of exhaust gases treatment and poor work and maintenance of plants.	Hydrocarbon (benzene, PAH), SOx, NOx, particles (smoke, soot, dust) Heavy metals registered in sedimentary materials, ashes from deposited sites and in total suspended particles
Air Pollution from Bor mining and smelting basin	Bor	Air pollution caused by obsolete and non-efficient copper production technology, inefficient storage and disposal of production materials, including open cuts. Significant pollution is caused by inadequate storage and disposal of by-products, such as waste in open pits.	SO2, NOx, VOC, PAH, particles (smoke, soot, dust). Heavy metals registered in sedimentary materials, dust from deposited sites and in total suspended particles
Air pollution in major urban areas	Belgrade, Novi Sad, Nis, Kragujevac, Subotica, Zrenjanin, Pancevo, Cacak, Leskovac,	Air pollution mainly caused by traffic and by combustion of fossil fuels containing sulphur during the heating season. Old	Main air pollutants are exhaust gases from motor vehicles (carbon monoxide, nitrogen dioxide, lead as well as benzene, PAH, etc.).

	Smederevo, Valjevo, Kraljevo, Krusevac, Uzice, Vranje, Novi Pazar, Sabac, Sombor, Pozarevac, Zajecar, Sremska Mitrovica, Jagodina and Loznica	vehicles, still use lead gas and poor-quality of motor fuel (diesel oil with high-percentage of sulphure). No plans for introduction of vehicle control, their improved maintenance or abandoning lead gas.	Winter smog, summer smog, heavy metals, suspended particles up to 10 µm and sedimentary materials or total suspended particles above 20 µm, as well as soot which effects on human health are very important according to the WHO »Winter smog« represents air pollution caused by substances from fossil fuels combustion containing sulphur and particles (smoke, soot, dust). Synergetic impact of sulphurdioxide and suspended particles is enhanced compared to the effect of each individual substance. Summer smog represents mixture of oxidants, so-called photochemical oxidants, obtained by reaction of present pollutants (nitrogen oxides, hydrocarbons) with UV. Sunlight decomposes nitrogen dioxide; oxygen atom is released and forms ozone.
Safe disposal, export or controlled destruction of pesticides	Prahovo	Nitrofene, around 50 tons, sold at the auction by the Custom Administration in the early 90s, was handed over to IHP Prahovo – preparation registration Prazilin 21. IHP Prahovo sold reserves to the Dolhim company from Bela Crkva. The owner was pre-packing the nitrofene into falsified packaging of preparations containing monocrotofos and imazetapir. It was revealed after the damage to alfalfa. 50 tons were confiscated and temporarily stored at the IHP Prahovo, where they are still stored. Criminal proceedings were brought against the owner of the Dolhim company in 2004, but the case has not been completed yet.	Nitrofene
Enforcement international agreement on transport dangerous goods	Serbia – especially transport through major cities and international transport	Transporters, warehousemen and organizers of transport fail to comply with RID, ADR regulations. Lack of supervising mechanisms (technical mechanisms, human resources, infrastructure- premises),	All dangerous substances contained in Table A: RID/ADR/ADN

		but also lack of punitive mechanisms.	
Lack of regulations that should enable enforcement of RID, ADR	Serbia – especially transport through major cities and international transport	Procedure concerning training and appointment of the Advisor for safety in transport of dangerous goods has not been initiated. The Advisor for safety in transport of dangerous goods does not perform training of workers and drivers. Regulations concerning harmonized packing codification for transportation of dangerous goods are not implemented.	All dangerous substances contained in Table A: RID/ADR/ADN

Table 3.B: Priority Concerns Related to Chemicals

Nature of Problem	Scale of Petrolem[1]	Level of Concern[2]	Ability to Control Problem[2]	Availability of Statistical Data[3]	Specific Chemicals Creating Concerns	Priority Ranking [4]
Pollution of surface and under-ground waters as well as baths	regional	high	low	Sufficient, data from monitoring performed by the Republic Hydrometeorol ogical Service; data on bath water quality may be obtained from Public Health Institute	Organic and inorganic compounds and heavy metals from industrial, agricultural and communal water and seepage water from dump	2
Drinking water contamination	regional	high	medium	Sufficient, data from the Serbian Public Health Institute	In Vojvodina - iron, nitrate, arsenic and manganese. In Central Serbia - fecal and other caliform bacteria	2
Soil contaminations	regional	high	low	insufficient	Organic and inorganic compounds and heavy metals from industrial plants, agricultural activities and traffic	2
Chemical residues in food	national	high	low	insufficient	Pesticides, heavy metals, additives, hormones and antibiotics	2
Hazardous waste treatment / disposal	national	high	low	insufficient	Hazardous waste	1
Occupational health: agriculture	regional	high	low	insufficient	Pesticides	2
Occupational health: industry	national	medium	low	insufficient	Toxic (dangerous) chemicals	2
Environmental	regional and	high	low	insufficient,	NOx, VOC,	1

pollution impact to the public health	local			data received from air- and water- quality monitoring	ozone, particles, Pb and other heavy metals, hydrocarbons (benzene, PAH, dioxins)	
Chemical accidents: industry	national	high	low	sufficient	Ammonia, waste xanthate, Hg, Pb, Mn, Zn, Cu and Cd, industrial waste from pesticide production, etc.	1
Chemical accidents: transport	national	high	low	sufficient	All waste substances contained in Table A of the regulation RID/ADR/ADN	1
Unknown chemicals imports	national	high	low	insufficient	There is monitor of poisons import (definition of poison in the national law is not clear) through issuing of rulings, but it is not in electronic form and there is no database	2
Air pollution	regional and local	high	low	sufficient	SOx, NOx, CO, particles (smoke, soot, dust), hydrocarbons (benzene)	1
Storage/disposal of obsolete chemicals	national	high	low	insufficient	POPs (PCB, pesticides)	1
Chemical poisoning/ suicides	national			Insufficient, data should be submitted to the National Poison Control Center	Drugs, mix of drugs and alcohol	
Persistent organic pollutants	national	high	low	insufficient	POPs	1
The most polluted locations in Serbia with remedial priorities	national	high	low	Sufficient, data from the Ministry of Environment and Spatial Planning (see Table 3C)	Numerous chemicals and chemical products	1

[1] Enter: local, regional or national.

[2] Enter: low, medium or high.

[3] Enter: sufficient, insufficient or no data available; data source should be mentioned separately.

[4] Provide relative ranking from 1 to 5 of the problems being faced by the country ((1)- most severe problem(s), (2) - second most severe problem(s), etc.)). As appropriate, the same ranking can be given to different problem areas.

3.1.1 Air pollution in the Republic of Serbia

(Data source: National Environmental Protection Programme and Report of Serbian Environmental Protection Agency for 2006)

Thermo-power plants, household combustion, motor vehicles and industrial plants are the main sources of air pollution in Serbia. The main pollution is caused by combustion of poor-quality lignite and motor fuel. Besides, low-energy prices, wasteful and inefficient energy use, obsolete and inefficient combustion technology, poor plant maintenance and obsolete fleet of vehicles (vehicles more than 12 years old) increase emission levels despite reduced business and industrial activities. Main pollution sources are thermo-power plants in Kolubara and Kostolac coal basins. Kolubara coal-basin (Nikola Tesla A and B and Kolubara A), with installed power of 3,160 MW, emits 124,999 t SOx, 33,658 t NOx and over 8,121 t of particles annually. Kostolac coal-basin, with 1,007 MW, realizes 102,667 t SOx, 9,823 t NOx and 2,765 t particles annually. (Data from Republic Environmental Inspection Report for 2007 - in accordance with Regulation on types of pollutants, criteria for calculation of charges for environmental pollution and obliged persons, rate and method of calculation and payment of charges („Official Gazette of RS“, No. 113/05)). Thermo-power plants also generate 6 - 8 mil. t of dust of low-toxicity, inadequately stored causing secondary pollution.

Other important pollution sources are Refineries in Pancevo and Novi Sad, cement plant in Popovac, Beocin and Kosjeric, as well as chemical and metallurgical industry in Bor. Generally speaking, their technologies use raw materials and energy inefficiently, there is lack of exhaust gases treatment and poor work and maintenance of plants. Significant quantities of air pollution are caused by inadequate storage and disposal of raw materials and semi-manufactures, including mines.

Emission of gases from individual fire boxes represents important part of total air pollutants in urban areas. According to the available data, 53% of the examined households in Serbia uses lignite and wood for heating and cooking (inquiry of 3000 households on the territory of Serbia **-**“*Stuck in the Past*, Energy, Environment and Poverty, Serbia and Montenegro”, UNDP, Belgrade, 2004. ISBN No 86-905231-0-3**)**

Old vehicles, majority of which are imported, are still using gasoline and poor-quality motor fuel. There are no plans for introduction of vehicle controls, improvement of maintenance or abandoning of lead gasoline. It is interesting to mention that the locally produced car, JUGO, with catalytic converter is produced only for export. There is increase in pollution caused by traffic, including concentration of soot, especially in major cities. According to the report of the “Jugopetrol” Technical Business and Investment Direction and “Jugopetrol” laboratory, average values of Pb in fuel produced by our producers are: MB-86 normal – 0.45g Pb/l (according to standard JUS B.H2.220/1/1993. – 0.6 g/l); MB-95 Premium – 0.32 gPb/l (according to standard JUS B.H2.220/1/1993. – 0.4 g/l) and MB-98 Super - 0.45 gPb/l (according to standard JUS B.H2.220/1/1993. – 0.6 g/l).

Pb imission measurements on cross-roads in Belgrade show that the value is above the prescribed value in most of the average monthly and yearly measurements. Values are in the range of 0.5-2.5 $\mu g/m^3$ of the air, sometimes more (in Europe: 0.15-0.5 $\mu g/m^3$)[5].

Data on air quality parameters in Serbia are collected through systematic implementation of the Air Quality Control Program. The legal ground for adoption of the Air Quality Control Program on the territory of Serbia is contained in the Law on the Environmental Protection ("Official Gazette of RS", No.135/04).

[5] Data obtained by Pb concentration measurements from suspended particles and sedimentary materials on 16 mesurement points over the theritory of Belgrade (regular monitoring of air quality performed by Belgrade Institute for Public Health in cooperation with Secretariat of Environmental Protection of the City of Belgrade) as well as by control of air pollutants which come from traffic on 10 cross-roads on the theritory of Belgrade performed by Serbian Institute for Public Health

Government of the Republic of Serbia adopted Decree on Air Quality Control Program for 2006 and 2007 ("Official Gazette of RS", No. 23/2006). The Decree regulates air quality control, which includes systematic measurement of imission, monitoring of polluted air impact to human health, environment and climate as well as reporting on measurement results.

Sulphure dioxide. According to presented data on annual values of sulphure dioxide in 2006, the value was above the maximum allowed value of 50 μg/m^3, in Bor 229 μg/m^3, in Vranje 63 μg/m^3, in Belgrade (54a, Despota Stefana Boulevard 55 μg/m^3 and Vracar 53 μg/m$^{3)}$. The most frequent exceeding of the maximum allowed value according to the national legislation, 150 μg/m^3, in 2006 happened in Bor - 155 days, followed by Vranje with 53, Belgrade – Vracar with 17 and Valjevo - with 15 days. The highest daily concentration of sulphure dioxide in 2006 occurred in: Bor – 2,441 μg/m^3, Smederevo 422 μg/m^3, Uzice 319 μg/m^3, Valjevo 306 μg/m^3, Vranje 282 μg/m^3, Kostolac 258 μg/m^3, Belgrade (Ohridska - 252, Vracar - 247, Despota Stefana Boulevard - 212, Carli Caplina Street - 196 and Kosutnjak – 174 μg/m^3).

Nitrogen dioxide. According to presented data on annual values of nitrogen dioxide in 2006, values did not exceed the allowed limits of 60 μg/m^3 at any measuring points. Only in Cacak was above limits - 67 μg/m$^{3.}$ The highest annual average measured in Belgrade – 60 μg/m^3 (Ohridska Street) than Uzice 53, Vranje 48, Nis 42 μg/m^3. The most frequent exceeding of the maximum allowed value according to the national legislation, 85 μg/m^3, in 2006 happened in Cacak 52 times, Vranje 46, Belgrade (Ohridska) 35, Uzice 28, Nis 12 times. The highest daily concentration of nitrogen dioxide in 2006 occurred in: Nis – 179 μg/m^3, Cacak - 159μg/m^3, Valjevo - 145μg/m^3, Beograd (Ohridska) - 137 μg/m^3.

Smoke (cinder). According to presented data on annual values of smoke (cinder) in 2006, the value was above the maximum allowed value of 50 μg/m^3, in Uzice 71μg/m^3 and Nis 57 μg/m^3. The most frequent exceeding of the maximum allowed value of 50 μg/m^3, in 2006 happened in Uzice – 150 days and Nis – 140 days, followed by Cacak - with 108, Belgrade (Dr. Subotica street) with 102, Zemun 98 and Smederevo with 93 days. The highest daily concentration of smoke in 2006 occurred in: Vranje 432 μg/m^3, Belgrade (Vracar – 399, C. Caplina Street – 297 μg/m^3), Valjevo 355 μg/m^3 and Smederevo 293 μg/m^3.

Heavy Metals in Aerosediment. Through analysis of measurements of some heavy metals in aerosediment in 2005, it can be concluded that lead concentration stayed within allowed limits in all measurable points. Concerning cadmium concentration, it exceeded the allowed values only in Nis (12.5 mg/sq.m./day) which presents exceeding of the average annual imission value (5 mg/sq.m/day). The greatest deviation from average annual imission value is recorded for zinc in Belgrade, Mladenovac, Obrenovac, while the biggest deviation was recorded in Sevojno - 1712 mg/sq.m/day. The average annual imission value for zinc is 400 mg/esq./daily, which indicates that it is reaching alarming proportions. Nickel concentration values oscillated from 1 mg/esq./daily in Mladenovac to 34.8 mg/sq.m/daily in Grabovac and as concerns manganese concentration the values vary from 197.3 mg/sq.m/daily in Grabovac to 1001.3 mg/sq.m/daily in Vreoci. Chromium was measures in six locations with the maximum value recorded in Kos. Mitrovica of 4 mg/sq.m/daily. Annual quantities of total heavy metals in 2006 were above the values for 2005 in most of the measurable points. Annual imission limit for the total heavy metals in the Republic of Serbia is 200 mg/m^2/day. Significantly excess of the value occurred in Lucani, Kostolac, Belgrade (Vreoci), Vranje, Smederevo and Nis.

3.1.2 Water Pollution in the Republic of Serbia

(Data source: Draft National Environmental Protection Program and Sanitary Statistical Yearly Report for 2006)

Key sources of pollution of surface and underground water are untreated industrial and communal waste water, agricultural drainage water, decanted and thin waters as well as pollution concerning navigation and thermo-power plants operations. Just 13% of communal waste water is being treated prior to discharge. Sava basin receives around 80% of Serbian industrial waste water. Diffuse source pollution causes above 50% of the overall water pollution, being the source of over 80% of the overall azote quantities, 50% of overall phosphorus quantities and 90% of fecal and other caliform bacteria.

According to the data from Republic Statistical Authority, percentage of industrial waste water released without treatment in 2006 was 92.09%.

According to data from the Serbian Water Masterplan (2002), the total estimates emission of suspended particles in recipients amounted to 1,549,531 kg/daily. Total emission of azote amounted to 111,374 kg/daily, and total phosphorus emission amounted to 36,764 kg/daily. According to estimations dumps in Serbia generate 890,000 m^3 of storm water containing approximately 41,590 t of organic and inorganic pollution, 389 t of azote and 426 t of phosphorus as well as heavy metals, such as copper, zinc, nickel and chromium.

Drinking water quality in Serbia is generally unsatisfactory. According to analysis made by the Serbian Public Health Institute in 2001, 29% of samples from the water supply system did not meet physical, chemical and bacteriological requirements. There are significant regional variations concerning drinking water quality between Central Serbia and Vojvodina. The main problem in Central Serbia is that over 40% of samples were bacteriologically polluted failing to meet quality criteria. In Vojvodina the main problems with physical and chemical water quality parameters are: water turbidity, iron, nitrate, arsenic and manganese whose level is naturally increased. In many areas, underground water cannot be used as drinking water without being treated. Most of drinking water sources are insufficiently protected from concentrated and scattered pollutants, so there is a risk of breaking out of epidemic.

In 2006 on territory of Republic of Serbia 151 central water supply systems were controlled from which 113 in central Serbia and 38 in Vojvodina. Physico-chemical properties were tested in 55,978 samples of drinking water from which 10,232 (18.28%) had improper quality. Test results showed that 20% of samples tested in 2006 did not meet physico-chemical requirements in 61 (40.40%) controlled water supply systems. The most common physico-chemical parameters of improper quality are turbidity and color, increased concentration of iron, manganese, ammonia, nitrates, nitrites as well as increased consumption of potassium-permanganate.

Microbiological quality was tested on 60,112 samples of water, from which 3,043 (5.06%) had improper quality. Test results showed that 5% of samples tested in 2006 did not meet microbiologically requirements in 60 (39.74%) controlled water supply systems. The most common cause of microbiologically improper quality was increased number of aerobic bacteria, mesophilic and total amount of coliformic bacteria, presence of coliformic bacteria, E. coli and streptococcus from fecal origin.

From total number of controlled water supply systems in 2006, 37 (24.50%) were both physico-chemically and microbiologically inadequate, while 67 (44.37%) were adequate i.e. less than 5% microbiologically and less than 20% physico-chemically inaccurate water samples on annual level.

3.1.3 Soil Pollution in the Republic of Serbia

(Data source: Draft National Environmental Protection Program and Draft Report of the Environmental Protection Agency for 2005)

Main soil pollution in Serbia is caused by industrial, mining, energetic, agricultural and traffic activities. The soil quality is endangered also by uncontrolled and inadequate waste disposal as well

as by low quality soil management. Nearby major industrial centers (Bor, Pancevo, Novi Sad, Smederevo, Beograd, Kragujevac, Kostolac, South Banat) different pollutants, emitted by industrial complexes from their production processes, contaminate significant parts of land. Along roads, especially main roads, the soil quality is endangered because of traffic activities i.e. depositing of pollutants from exhaust gases from vehicles (lead and PAH).

In 2005, the Institute of Field and Vegetable Crops in Novi Sad published a report concerning the project ***"Monitoring of Environment Quality on the Territory of the Autonomous Province of Vojvodina - Nonagricultural land in Industrial Zones"***. In 2003 and 2004, different soil types with different protection categories and land in industrial zones were analyzed while in Vojvodina in 2005 quality of nonagricultural land in major industrial cities was monitored. Monitoring of industrial zone land has been continued in Pancevo and Sombor. Analysis included, among others, content of heavy metals and microelements as well as of organic pollutants (poly-chlorinated biphenyls – PCB and polycyclic aromatic hydrocarbon - PAH). Results of the analysis of content of heavy metals in nonagricultural land – of industrial zones in Vojvodina show that they originated mainly from geochemical i.e. nonagricultural land within industrial zones in Vojvodina are not polluted by heavy metals except in two locations: cement plant in Beocin, where the soil is contaminated with nickel and in accumulator factory in Sombor, where the land is contaminated with anthropogenic lead.

The maximum allowed value for PCB in soil is not defined in Serbia. German criteria set in the Federal Soil Protection and Contamination Sites Ordinance of 1999 defines maximum limits of PCB for different land uses. The most rigorous criteria apply in the cases of possible contamination of underground waters and in that case, the maximum allowed value of PCB in soil is 0.05 mg/kg. Analysis of content of polychlorinated biphenyls in non-agricultural land - in industrial zones - show that the average content of PCB is the highest in Pancevo amounting to 0.041 mg/kg of absolute dry soil ranging from 0.0057 mg/kg of absolute dry soil to 0.071 mg/kg of absolute dry soil The content of PCB in the proximity of accumulator factory in Sombor with the average of 0.0276 mg/kg of absolute dry soil, ranging from 0.0008 mg/kg of absolute dry soil to 0.0595 mg/kg of absolute dry soil. Near the casting plant in Kikinda the average PCB content is 0.0213 mg/kg of absolute dry soil, while in proximity of the cement factory in Beocin the average content amounts to 0.0189 mg/kg of absolute dry soil. By applying the German criteria concerning maximum allowed value of 0.05 mg/kg**,** 33% of samples in Pancevo and only 1 sample near the accumulator factory in Kikinda exceeded the value. The soil near the casting plant in Kikinda and cement factory in Beocin are not contaminated with high PCB concentration.

The Law in Serbia regulates the maximum allowed value for the PAH in soil for organic production at the level of 1 mg/kg of soil ("Official Gazette" No. 61/2002). The German Federal Soil Protection and Contamination Sites Ordinance of 1999 define allowed PAH concentration for various soil uses. The most rigorous criteria are applied in the case of contamination of water and in that case the maximum allowed value of sum of PAH in soil is 0,2 mg/kg, and only naphthalene 2 mg/kg of absolute dry soil. Results indicate that the highest average PAH content in soil is in Kikinda and amounts to 2,138 mg/kg of absolute dry soil. This value is above maximum allowed value for organic agriculture. The average contents in soil in Sombor and Beocin is also above 1 mg/kg and amounts to 1,644 mg/kg of absolute dry soil and 1,473 mg/kg of absolute dry soil. According to German criteria (maximum allowed value for sum of PAH is 0,2 mg/kg of absolute dry soil) 76,7 % of investigated soil samples are contaminated with PAH quantities in the amount exceeding maximum allowed value. This means that the soil potentially represents the source of contamination of underground waters with polycyclic aromatic hydrocarbons.

Implementation of the ***Program concerning investigation of soil contamination on the territory of Belgrade,*** by the Public Health Institute of the City of Belgrade upon request of the Environmental Protection Secretariat of the City of Belgrade in 2005 it was sampled and laboratory tested 64 soil samples from 32 locations on the territory of Belgrade. The Belgrade Public Health Institute submitted data needed for development of the Report of the Environmental Protection Agency for

2005. Laboratory testing and interpretation of results were performed in conformity with provisions of the Regulations on Residue values of Dangerous and Hazardous Substances in Water and Soil used for Irrigation and Testing Methods (»Official Gazette of RS«, No. 23/94). For those parameters whose values are not standardized in the afore-said Regulations, interpretation is done in conformity with values inherent in Dutch Soil Contamination Standards.

Soil contamination analysis results published in 2005 indicate that there are sites in Belgrade with degradation of, above all, surface soil layer. Increased content of nickel identified in 28 out of 64 soil samples in 2005 regards the specific geochemical surface soil layer in this area, considering that the similar concentrations have been noticed during years-long control in most of tested samples within the Belgrade General Master Plan (GUP).
The PCB concentration of 188,9 µg/kg, found in a soil sample in Ada Ciganlija exceeds 50 µg/kg, which is the limit for clean soil in conformity with the Dutch Soil Contamination Standards, but still significantly lower than 10.000 µg/kg, which represents, according to the afore-mentioned Standards, the trigger value for remedy actions.

Increased content of the afore-said heavy metals, mineral oils and presence of PCB and PAH registered in soil sample at the most protruding point of Ada Ciganlija in 2005 confirms conclusions of tests from the previous years stating that this micro-spot is characterized by significant burden of surface soil layers of contaminants released during activities related to purpose and usage of this area (marina, rowing clubs, servicing and maintenance of vessels, etc.). Lower PAH concentrations registered in numerous tested soil samples on the Belgrade territory are caused by sedimentation of in-the-air-released organic compounds from heating plants (household heating, boiler-rooms, district heating plants) or traffic (air pollution).

Results for DDT testing in three locations within areas with different use purposes (Botanic garden, Zemun polje, Trosarina), indicate residues of the substance from the group of insecticides, that used to be utilized to the great extent. DDT as well as other organchlorine pesticides, is characterized by environmental persistency i.e. long-lasting degradation due to which the use of these pesticides is prohibited for conventional use.

The soil quality degradation in Serbia is caused by low levels of municipal hygiene and low awareness on need to preserve and protect the environment, by uncontrolled application of agrochemical substances, lack of infrastructural facilities and equipment for waste water and gas emission treatments, non-regulated city waste dump as well as insufficiently developed legal regulations.

3.1.4 Dangerous Waste

(Data source: Draft National Environmental Protection Program)

It is estimated that Serbia produces 230,000 - 460,000 t/annually of dangerous industrial and medical waste including: waste motor oil 106,000 t/annually, mixed organic-water emulsions 257,000 t/annually, other dangerous waste (medical waste, organic and inorganic dangerous waste from industry, PCV waste, etc.) 97,000 t/annually. In Vojvodina there is a problem concerning waste from oil-wells (estimated to approximately 600,000 m^3). There are no dangerous waste treatment or disposal plants, nor adequate disposal site. Dangerous waste is temporarily stored in inadequate warehouses (some of them exist for various decades). Dangerous waste is disposed of on the dust deposited sites of the thermo-power plants Nikola Tesla A (1,680,167 t/year) and Nikola Tesla B (1,365,584 t/year), Veliki Crljeni (304,687 t/year) and Kostolac (1,560,179 t/year); foundery coke sand is disposed of on deposited site in Surdulica (376 t/year) and Rakovica (230 t/year). There is no data on flotation rubbish mining sites in Veliki Krivelj, Bor and coal basin Majdanpek.(Data from Republic Environmental Inspection Report for 2007 - in accordance with Regulation on types of pollutants, criteria for calculation of charges for environmental pollution and

obliged persons, rate and method of calculation and payment of charges („Official Gazette of RS“, No. 113/05)).

3.1.5 Chemical Accidents in Transport and Industry

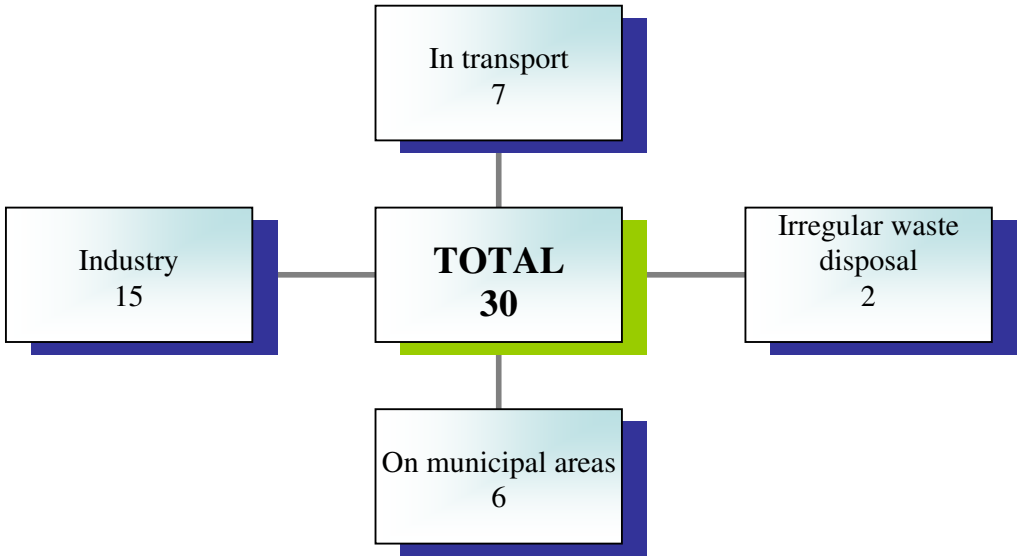
(Data Source: Report of Mobile Eco-toxicological unit of the Public Health Institute of the City of Belgrade and Republic Environmental Inspection)

In 2007, the Mobile Eco-toxicological unit of the Public Health Institute of the City of Belgrade had 30 interventions. 11 accidental sites were visited and samples of the environmental substrate on the site were taken for lab testing in both mobile and stationary Public Health Institute lab. Furthermore, there were 19 telephone consultations among the participants in emergency responding system, especially with fire brigade (Directorate for Protection and Rescue within the Ministry of Interior), police, local-self government authorities and representatives of Ministry of Environment and Spatial Planning of the Republic of Serbia (Department for Accident Management)

In 2007 on the territory of the City of Belgrade 24 chemical accidents were registered. Seven accidents were registered on the territory of Pancevo and Belgrade (Palilula), 4 on the territory of Vozdovac, 3 on the territory New Belgrade, 2 on the territory of Zemun, 3 on the territory of Surcin, 1 on the territory of Stari Grad, 2 on the territory of Rakovica and rest of the accidents were registered on territory of Mladenovac, Barajevo and Cukarica.

All accidents outside of territory of Belgrade occurred in industrial complexes or the pollution came from industrial facilities. One accident related to sodium-hydroxide leakage was registered in Vrsac and another one related to hydrochloric acid leakage from damaged reservoir occurred in factory of edible oil “Mladost” in Sid. Altogether 6 chemical accidents were registered in 2007. on territory of Republic of Serbia (outside Belgrade) during which Mobile Eco-toxicological unit of the Public Health Institute assisted in response and collected environmental substrate on the site. Except two mentioned, other accidents occurred in Surdulica (near foundry ‘’ Mackatica’’ a.d. and ‘’Knauf’’ complex), in Ljig, in Lajkovac (leakage of small quantity of ammonia from damaged pipeline of cooler ‘’Fruvela’’) and in Kursumlija where, due to the few mounts long drought, river Toplica and it’s tributary Banjska were dried (below biological minimum), and accidental soil pollution of river side and river bed came from wood industry SIK ‘’Kopaonik’’.

Calls were received from the Information Centre of the City of Belgrade, environmental inspection of the City of Belgrade, police, Department for control and supervision – Ministry of Environment and Spatial Planning and Directorate for protection and rescue of the City of Belgrade.



Two interventions out of those mentioned were related to road transport and two were related to railroad transport of hazardous and dangerous goods (oil derivates and prone butane). Two potential accidents were related to forced landing of one cargo plane and one airplane in Surcin airport when complete airplane fuel was spilled before landing. According to scale and level of danger, accidents in transport can be ranked as **low risk** (explosion of gas tank in vehicle in Jurija Gagarina st. in New Belgrade) and as **medium** or **high risk** (gasoline leakage from wagon tank transporting oil derivates, on train station in Mladenovac; getting three rail wagons out of rails in Padinska Skela, transporting butane). In both cases, there was a risk of significant contamination of soil and under ground water.

During 2007, 7 accidents related to fires in industrial warehouses of hazardous and dangerous goods were registered. The biggest accident on the territory of Belgrade occurred during fire in Electronic industry complex in Batajnica, in chemicals warehouse of company "Herman". Big amount of different hazardous and dangerous chemicals were detected around warehouse, especially mercury, phenol, sodium hydroxide, cobalt sulphate, chromic acid, formaldehyde etc. In two cases accidents were related to irregular waste disposal and handling. One of them was related to uncontrolled leakage of 2,000 liters of dangerous waste remained from cleaning of oil reservoirs on gas station NIS ''Jugopetrol'' in Vareska 2 st. in Rakovica when significant quantity of dangerous waste came into sewerage and after that into Topcider River and river Sava.

Among high-risk accidents in 2007, fire, afterwards explosions and complete destruction of chemicals warehouse of company "Herman" in Batajnica can be appointed. During the explosion two persons were injured, one with the poisoning symptoms was transferred to Military Medical Academy in National Poison Control Centre.

Outside of territory of the City of Belgrade, middle and high-risk chemical accidents were related to industrial complexes and came from activities in those complexes. It could be pointed out accident in Kursumlija related to contamination of surface water, river sediments and river banks of Banjska and Toplica river which came from activities of wood industry SIK ''Kopaonik''. Human health and environment were even more affected because of low water-level in those rivers due to few months long drought and leakage of waste water from the city sewerage. The highest risk to environment came from presence of unprocessed technical waste water and sludge (about 10,000m^3) in "pool for logs washing" (dimensions 35x70m, depth 5m and in very bad structural and technical condition), with possibility of contamination of surrounding soil and ground water in this area. Accident in Kursumlija is also specific because of additional risk from newly built incineration facility (furnace) for wood waste from production process. During the visit of this area irregular disposal of wood waste, ash and other incineration products mixed with soil was noticed (unknown chemical composition, probably dangerous industrial waste). Furthermore, this chemical accident caused increased risk of infective diseases due to direct outlet of city sewerage into the river Toplica.

There were 6 **chemical accidents in municipal zone** in 2007 among which 2 were animals poisoning in Kotez and Ovca, one was in relation to chemicals waste found in primary school "Bora Stankovic" in Vozdovac and one was in relation to plastic barrel containing unknown chemical found also in Vozdovac.

During all chemical accidents in 2007, 8 persons were injured and 6 persons were intoxicated.

3.1.6 Contaminated Spots on the Territory of Serbia

Pursuant to the adopted *Methodology on setting remedial priorities of contaminated spots* (national classification system representing adjusted Canadian methodology), the Ministry of Environment and Spatial Planning in 2006 performed preliminary review of contaminated locations and provided

their overview. There is an ongoing reviewing of additional 2 locations: Veliki Majdan and phosphoric gypsums dump in Sabac.

Table 3.C: Overview of the Most Polluted Locations in Serbia with Remedial Priorities
(Source: Report of the Ministry of Environment and Spatial Planning, 2006)

No.	Company	Location	Number of points	Class
1	RTB ″Bor″	Flotation tailing pond ″Veliki Krivelj″	89	1
2	″Mines and Smeltery Zajaca″ - Loznica	Dump, Zajecar	86	1
3	Zorka ″Non-ferrous Metallurgy″ Sabac	Sludge dump	83	1
4	TENT-B, Obrenovac	Ash and Slug Dump	82	1
5	RTB ″Bor″	Flotation tailing pond ″RTH″	80	1
6	TENT-A, Obrenovac	Ash and slag dump	75	1
7	Mining basin Majdanpek	Saski potok	75	1
8	RTB ″Bor″, Majdanpek	Valja Fundata	75	1
9	Public Company ″Matroz″, Sremska Mitrovica	Dump	74	1
10	TE ″Kolubara″, ″Veliki Crljani"	Ash and slag dump	71	1
11	TPP ″Kostolac″, Kostolac	Ash and slag dump	71	1
12	Mine and Flotation ″Rudnik″, Gornji Milanovac	Tailing dam	70	1
13	Leather factory, Ruma	Dump	68	2
14	″Sartid″ Smederevo	Secondary raw material dump	68	2
15	HI ″Zupa″, Krusevac	Dump	62	2
16	TS-PC EPS - Resnik	Facility	62	2
17	Leather factory ″Obnova″, Sabac	Dump	61	2
18	TS-PC ЕПС - Rakovica	Facility	59	2
19	TS-PC EPS - Nis	Facility	59	2
20	TE ″Kolubara A″, Veliki Crljani	Facility	59	2
21	DP ″Kolubara - processing″, Vreoci	Ash and slag dump	58,5	2
22	TS-PC EPS Zemun	Facility	56	2
23	Mining basin Majdanpek	Old Bor tailing pond	52	2
24	TS-PC EPS New Belgrade	Facility	50	2
25	Public Utility Company ″Beogradske Elektrane″, New Belgrade	Facility	47	2
26	RTB ″Bor″	Quartz sand dump	47	2

3.1.7 Environmental Pollution Impact to the Human Health

(Data Source: Draft National Environmental Protection Program)

The link between environmental quality and human health is not so easy to be determined due to numerous other factors that do not affect to the human health. It is a complex task to relate mortality, disability, and morbidity to the environmental pollution. However, it is well-known that

there is a strong correlation between certain health conditions and air and water pollution such as asthma or digestive system infections.

Children are the most sensitive to environmental pollution impacts. When we consider this topic, we have to be aware that children are not "small people" and their physiology is different that physiology of adults. In certain periods of child's growing up there are, so called "sensitivity window" through which different adverse effects from environment very easily affect their young bodies. For this reason, responsibility of adults is huge, whether they are parents, teachers, decision makers or ones whose behavior could have negative influence on children. From birth through childhood, pre-school and school period to around age 19, children posses physiological individuality. Children breathe faster than adults do so they inhale more air than adults do. Child's liver is not mature enough to process and detoxicate all hazardous substances that entered the body so those substances stay in child's body much longer. Immature nervous system is especially sensitive to neurotoxic substances, especially lead. Endocrine system, during its development, is especially sensitive to chemicals from environment, so-called endocrine disruptors i.e. substances that cause endocrine gland system disturbance. According to methodology of World Health Organization, 26 risk factors to human health are monitored, and some of them come from environment. Main recognized risks that come from environment and are **responsible for third of all diseases** of children aged 0 - 19 in Europe, are:

1. lack of good quality drinking water and good sanitary conditions
2. injuries related to movement and traffic
3. air contamination (environmental and ambient)
4. dangerous chemicals and professional risks

Principle of precaution and prevention is the most important principle in national and local politics addressing environmental issues and environmental effects to human health. Within this holistic approach, term environment considers cluster of all circumstances in environment that could affect human health. This includes socioeconomic factors, life habits (life style) as well as effects of different hazards from environment, which are consequence of human activities. Some of data that illustrate how quality of environment affects human health in Europe are as follows:

- Mortality of children aged 0 - 4 due to exterior air pollution is 1.8%-6.4%
- Mortality of children aged 0 - 4 due to interior air pollution is 6.4% or 3.1 DALYs (disability adjusted life years)
- Mild mental retardation due to lead exposure 4.4% DALYs

Public pressure as well as scientific evidence opens the problem of environment impact on human health. In EU countries there is a special process called EU SCALE (Science, Children, Awareness, Legislation, Evaluation). Four specific groups of diseases related to environment effects on human health were identified in this process: infant cancer, infant respiratory system diseases especially asthma, neurodevelopment and endocrine disruption. As not only lot of different pollutants but with their different potentional risks characterizes impact of environment on human health, environment and health indicators also include environmental parameters such as: concentration in the air of sulphur dioxide, nitrogen oxides, ground ozone or ionizing radiation and UV radiation exposure etc. In addition, socioeconomic factors are very important. In countries with lower gross domestic product, more deaths are assigned to exterior air pollution. For relevant hazards from environment DALY (Disability Adjusted Life Year) is also calculated, indicator which represents sum of the years of life lost due to premature mortality in the population and the years lost due to disability ('healthy' life lost in states of less than full health for incident cases of the health condition) as a consequence of environmental factor influence.

It can be seen that environmental and health indicators are numerous. While they are standardized in EU, in our country they are not monitored systematically. According to World Health

Organization, 26 health risk factors are monitored today, some of them come from environment. ENHIS database on environment and health, which is used in EU monitors 29 environment and health indicators, some of them relate to children and youth as the most sensitive part of population. In the Republic of Serbia, about 70% of these indicators are monitored, but due to our irregular reporting to World Health Organization, only 5 environment and health indicators can be found in international presentation and data exchange.

Different chemicals that are of great help to mothers in house keeping represent big danger for children. According to World Health Organization data these chemicals are cause of death by poisoning of 35 000 children in Europe per year. Children breathe faster than adults breathe, eat and drink proportionally more than adults comparing to their weight so that more chemicals entered their body by food and water but as they do not have developed detoxication mechanism, they can not neutralize them. Furthermore, children are not aware of chemicals risks so they are more exposed than adults are. Parent's obligation is not only to make all hazardous chemicals in house unavailable to children but to explain them what the risks are.

Parents as well as decision makers have to be aware of danger that lead, which come from combustion of lead gasoline used in motor cars, represents for children. Mild mental retardation caused by children exposure to lead is 3.1% in Central and East Europe while in Western Europe where lead gasoline is prohibited for a longer period is 0.8%. Parents have to be aware that children are not "small people" and during child's growing up, due to specialty of child's organism, they are more vulnerable to different adverse effects because they still do not have developed mechanisms to eliminate dangerous chemicals. Trough so called "**sensitivity windows**" children are, not by their willing, convicted to shorter and less quality life if exposed to lead.

Serbia is, besides Bosnia and Herzegovina and Macedonia, the only country in Europe that has not prohibited use of lead gasoline. Albania did it in 2004. Serbia is under strong international pressure in order to make decision makers aware of the risks. All measurements of air quality along the streets in Belgrade show increased quantity of lead.

By a decision of Government of Republic of Serbia in May 2008, National Committee for Environment and Children Health is established with a goal to develop Action plan for environment and children's health based on the Declaration of Fourth Ministerial Conference on Environment and Health hold in Budapest in 2004.

Air pollution, water and food contamination, noise and radiation are the main causes of health deterioration due to the environment condition. Air pollution may have impact to the human health directly causing damages to the respiratory system, by entering into blood and lymphatic system. Usually there is a strong correlation between daily mortality rates and acute air pollution. Most of pollutants have negative impact to human health, particularly, nitrogen dioxide (NOx), emission of volatile organic compounds (VOCs), ozone, particles and SO_2. Population in big urban areas is particularly exposed to the afore-said pollutants. Especially disturbing is smog during winter and summer conditions without wind when concentration of pollutants and their impact to the human health are extremely high. Summer smog, is pollution by troposphere ozone may cause severe respiratory disturbance especially for children, asthmatic patients, and elderly. Those include: lung function weakening (cough, irritation of respiratory system, fast or hard breathing); pneumonia or damage to lung lining, worsening of asthma, reduced immunity, etc. Some evaporable organic substances (such as benzene) are very cancerogenous.

Irregularly waste disposal on unsanitary dumps brings to the soil and underground water contamination. Rainfalls, which percolate through the disposed waste, decompose the dangerous substances. Contamination of the soil is not local. Underground and surface water as well as soil in the wider area are also contaminated. It indirectly threatens the flora and fauna in/on the ground. An additional problem, soil is contaminated by waste, which is brought by the wind.

In principal, dump utilization has no direct and transient influence on human health, but indirectly it may endanger health by:

- waste spreading by the wind and animals;
- uncontrolled contaminated gas emission in the concentration which presents risk to human health;
- stench spreading;
- waste ignition and emission of the combustion products;
- draw-well and water supply system contamination.

3.2 Comments and Recommendations

Considering that, the Serbian Draft Environmental Protection Program has been produced through a comprehensive and coordinated process engaging great number of stakeholders and there is ongoing drafting of Implementation Action Plan, it can be concluded that there is an agreement concerning priorities in terms of the environmental protection including pollution from chemicals.

One of the most important tasks aimed at solving priority problems is environment monitoring and reporting system reform. Monitoring activities should be obligation of the polluters performed as self-monitoring along with record keeping and obligation to inform and report to competent bodies. The polluters shall be accountable for own emission monitoring, but competent bodies should be provided with sufficient laboratory capacities to test random samples, reference analysis and measurements on the spot (devices for sampling and mobile measuring instruments). Monitoring according to the Program adopted by the Government of the Republic of Serbia (National monitoring – Government network for monitoring of quality of air, water, etc.) should be financed from the budget adequately. The Draft National Environmental Protection Program envisages a monitoring system, planning to test and optimize monitoring station network and introduce automatic ambient air monitoring in major cities and hot spots; monitoring of underground and surface water should be harmonized with recommendations on water inherent in EU Directives, and in line with timeframe of activities of Danube-basin countries; waste water emission monitoring should be put in place; an inventory of gas emission with greenhouse effects should be made; monitoring and processing of data on waste generation, content and physical and chemical properties of waste should be put in place as well as monitoring of POPs chemicals.

Certain areas throughout Serbia of special interest to citizens should be covered by special eco-toxicological and epidemiological surveys aimed at analyzing of risks to the human health and the environment. This mainly refers to water-supply protection areas, city dumps, industrial complexes, land adjacent to main roads, parks and recreation areas, agricultural land in outskirts of towns where foodstuffs are cultivates, etc.

However, there are big problems concerning implementation of epidemiological analysis aimed at analyzing of risks to the human health caused by toxic substances from the environment. Based on data from the Serbian Public Health Institute «Milan Jovanovic Batut», public health institutes throughout Serbia do not perform systematic monitoring of impacts to the human health of chemicals presenting a risk factor from the environment because there is no legal ground for implementation of the afore-said activities. Although the competent human resources are available in public health institutes, finance sources needed for implementation of eco-toxicological and epidemiological analysis are needed as well as funds for additional staff training. Although the Decree on Program on Air Quality Control in the Republic of Serbia, adopted by the Serbian Government in 2004, envisages monitoring and analysis of the impact of the air quality to the human health, climate and forest ecosystem in some towns with high air-pollution levels, numerous details are still not clear (who is paying for that, who is implementing activities, should procedures be standardized according to the quality system, who collects and analyses data and how). Therefore, the legal framework should be set firstly in order to initiate these analyses and to have their continuity, as well. The Draft Law on Chemicals defines that the systematic chemicals

monitoring is performed in order to define measures to reduce risks, etc. The systematic monitoring should be done in accordance with a program, the adoption of which is envisaged by the Law. On the grounds of provisions of the Draft Law, it will be possible to adopt a program for systematic monitoring of impacts to the health from chemicals. Financing of these activities is possible from the Environmental Protection Fund or through collection of fees for chemicals registration or issuing of licenses for placing of biocides on the market.

In conformity with the Law on Health Protection ("Official Gazette of the Republic of Serbia", No. 107/05), the Poison Control Center which is under the Ministry of Health is responsible, among others, to keep records on chemical poisoning, provide information and advises regarding severe poisoning and submit data on chemical poisoning to the Ministry of Health and Ministry in charge of chemicals management. Based on submitted information on the most frequent cases of chemical poisoning, competent government bodies should undertake proper measures for poisoning risks reduction. Considering that by-law regulations have not been adopted yet, defining closely which data are to be submitted by the Poison Control Center to line ministries and the fact that the Center has not received yet an official decision to perform activities in line with provisions of the new Law, the Center is still not provided with poisoning statistics.

Continuous data collection aimed at setting priorities concerning occupational diseases from long-term exposure of workers to chemicals will be based on periodical check-ups which are performed according to the new Regulation on Prior and Periodical Check-Ups of employees with higher risk workplaces ("Official Gazette of the Republic of Serbia", No. 120/07), in conformity with the Law on Occupational Health and Safety ("Official Gazette of the Republic of Serbia", No. 101/05). Ministry of Health finances the project of Institute for Occupation Health “Dr Dragomir Karajovic” which should provide better evidence on professional diseases and injuries at work. Within this project, it is planned to develop bases for information system for registration and reporting on injuries at work, which will enable interested authorities to have daily information on injuries at work and their causes. In addition, system of professional diseases determination will be changed so that it is expected that three republic commissions will be established. Their work will be supported by the information system.

The Advisor for safe transport of dangerous goods, who is designated according to provisions of Chapter 1.8.3 of RID/ADR[6], is a key element for enforcement of regulation and improvement of safety in handling and transport of dangerous goods. Each company dealing with transport of dangerous goods or packing connected to this transport, loading, charging or unloading, must designate one or more Advisors for safe transport of dangerous goods in order to prevent risks from those activities on human health, objects and environment. There are also exceptions when Advisors for safe transport of dangerous goods need not be designated.
The Advisor for safe transport of dangerous goods is trained, educated and owns certificate that verifies that he is trained according to specific program.
The Advisor for safe transport of dangerous goods reports to director of company. His main responsibility within the company activities is to find out resources and to undertake measures, under optimal conditions of safety, to implement valid provisions in order to facilitate enforcement of these activities.
His duties regarding the transport of dangerous goods are in particular:

- Control of legislations enforcement on transport of dangerous goods;
- Advising related to transport of dangerous goods;
- Preparing of annual report on transport of dangerous goods for management or local authority. Annual reports must be kept for five years and submitted to authority on request.

Beside it, his duty is to reconsider measures and procedures which:

[6] The European Agreements Concerning the International Transport of Dangerous Goods by Rail (RID) and by Road (ADR)

- ensure legislation enforcement when particular requests, which relates to transport of dangerous goods, need to be identified
- allow acceptance of special requests which relate to transport of dangerous goods when purchasing transport vehicles
- are used for testing of equipment used for handling and transport of dangerous goods.

He is also responsible for:

- training of the staff and keeping of records of such trainings;
- implementation of the proper emergency measures in the case of any accidents or incident that may effect handling and transport of dangerous goods;
- investigation of accidents, incidents or offences that occurred during the handling and transport of dangerous goods and if necessary preparation of reports on that;
- implementation of proper measures to prevent new accidents, incidents or offences;
- verification whether the staff is provided with detailed explanations and guidance;
- preparation of loading and unloading procedures;
- the plan of safety, etc.

The Advisor for safe transport of dangerous goods will report on transport of dangerous goods to the competent governmental authority annually. Such reports will provide a comprehensive data to be processed: analytically – aimed at safety improvement and statistically – for the purpose of operational interventions. The Advisor for safe transport of dangerous goods has yet not been engaged in practice due to the lack of legislations, which regulate conditions for legal persons and procedures for training of the advisor, defined by RID/ADR (edition 2001). Therefore, there is no data on quantities and transport routes of dangerous goods, companies, trained personal, types of dangerous goods, risks. Engagement of the Advisor for safe transport of dangerous goods will provide adequate setting of priorities in transport of dangerous goods.

The Draft National Environmental Protection Program states that nowadays there is lack of a comprehensive database on chemicals on the Serbian market as well as of their properties including hazardous chemicals, which represents one of the major drawbacks for the sound chemicals management. Therefore, one of priority actions is to establish and update information system for chemicals management that will enable creation and updating of database of chemicals on the market and their properties as well as studies on chemicals impact to the human health and the environment. Establishment of such a data base will unable proper setting of priorities.

Articles 7 and 8 of the Regulations on methodology for evaluation of risks from chemical accidents and environmental pollution, prevention measures and response imposes keeping of records by companies on dangerous substances and submitting of data by January 31 of the current year for the previous year. Pursuant to this Article, the Department for Accident Management within the Ministry of Environment and Spatial Planning keeps an electronic database. However, setting of electronic network between companies having hazardous chemicals in quantities defined by the Regulations and by the Ministry of Environment and Spatial Planning will enable timely action in the case of chemical accidents.

IV CHAPTER: LEGAL INSTRUMENTS AND NON-REGULATORY MECHNISMS FOR MANAGING CHEMICALS

Due to cross-sectoral nature of chemicals management, various laws, by-law regulations or standards in the country address chemicals in different ways. The objective of the chapter is to assess whether all important aspects of chemicals management are covered and that there is consistency or complementarity among these legal instruments. Therefore, Chapter IV provides a summary of all regulations related to the management of chemicals as well as analysis of enforcement of these regulations.

4.1 Overview of National Legal Instruments which Address the Management of Chemicals
4.2 Overview of National Strategies, Programs and Plans for Chemicals Management
4.3 Summary Description of Key Legal Approaches and Procedures in Chemicals Control
4.4 Comments and Recommendations

4.1 Overview of National Legal Instruments which Address the Management of Chemicals

Legislative, legal and institutional framework concerning the environmental protection is founded upon the Constitution of the Republic of Serbia defining citizens' right to a healthy environment as well as responsibility of citizens' to protect and improve the environment. The Constitution defines that the Republic of Serbia regulates, among other issues, sustainable development, system of environmental protection and improvement, production and transport of weapons, toxic, flammable, explosive, radioactive and other dangerous substances.

The Law currently in force is the one adopted by the Assembly of the Republic of Serbia as well as regulations from the period of the Socialist Federal Republic of Yugoslavia (SFRY) before 1991, Federal Republic of Yugoslavia (1991-2003), and State Union Serbia and Montenegro (2003-2006) that are enforced as republic regulations until the adoption of new ones.

The purpose of Table 4.A is to provide a list of all regulations concerning chemicals management, relevant ministries or institutions in charge of enforcement, as well as scope and objective of each instrument. Furthermore, the Table contains chemical categories covered (agricultural chemicals, industrial chemicals, etc.) or chemicals regulated as by-products (e.g. air emissions, water emissions).

Table 4.A: Existing Legal Instruments Which Address the Management of Chemicals

Legal Instruments	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Law on Production and Trade of Poisons „Official Gazette of FRY“, No. 15/95, 28/96 and 37/2002	MESP	Poisons	The Law regulates conditions for production and trade of poisons and supervision over production and trade of poisons
Brief description of regulations including also areas not covered by the regulations The Law regulates conditions for production and trade of poisons and supervision over production and trade of poisons. In accordance with the Law, poisons are natural or synthetic substances, and preparations produced from those substances that can endanger the human life, health and the environment. Provisions of the Law do not refer to drugs containing poisons and poisons used in lab and scientific researches. The Law regulates prohibition of the production, trade and use of poisons that may endanger human life and health and the environment, a list of particularly dangerous poisons and conditions for their production, trade and use, making decisions on classification of poisons into groups; defines whether conditions are met by legal entities to provide toxicological evaluation of poisons;			

defines which poisons can be trade and used; verifies whether conditions are met by legal entities to provide poison effectiveness evaluation; verifies whether conditions are met by legal entities to produce and trade poisons; verifies whether conditions are met by legal entities to perform activities of the Poison Control Center; verifies whether conditions are met for poison control; keeping the poison register, etc.

Competent government body

Ministry of Environment and Spatial Planning - jurisdiction at national, regional and local level - is in charge of all procedures defined by the Law.

List of chemicals covered and/or criteria applied for selection of chemicals covered

The Law prescribes obligation to publish the List of poisons, whose production, trade and use are prohibited ("Official Gazette of FRY", No.72/06) and List of poisons classified into groups ("Official Gazette of FRY", No. 12/00).
Article 7 of the Law and Regulations on criteria concerning classification of poisons into groups (in details) and methods for defining poison grades («Official Gazette of FRY», No. 79/91) provides criteria for poison classification.

Enforcement Monitoring Mechanisms (inspections, reporting requirements)

The Environmental Protection Inspection performs supervision over implementation of this regulation. Inspection mainly refers to verification whether criteria are met by legal entities for production and trade of poisons. This year the Environmental Protection Inspection has started the verifications and out of 630 applications, 407 are solved. It is established that 276 meet criteria, while 131 do not. Although the Law sets it, the Inspection does not verify whether poisons are classified or labeled well. Moreover, the inspection refers to poison import/export, but in conformity with the Law on Transportation of Dangerous Goods („Official Gazette of SFRY", No. 27/90, 45/90 and „Official Gazette of FRY", No. 24/94, 28/96, 21/99 and 44/99), the inspection is done by the Environmental Protection Inspection at border-crossings but it is overtaken by the Custom Administration in the first quarter of 2008.

Environmental Protection Inspection plans its activities annually and monthly. Inspectors report monthly. The inspectors' monthly reports are processed in the inspection administrative service that reports quarterly.

The Republic Environmental Protection Inspection is organized within the Ministry of Environment and Spatial Planning. The inspection department has 91 employees: 89 inspectors and two administrative officers. The inspection is organized in 2 departments and 11 units for the environmental protection from industry with 9 branch offices located in Belgrade, Sabac, Uzice, Kraljevo, Kragujevac, Nis, Vranje, Pozarevac and Kikinda, department for protection and use of natural goods and resources with 2 branch offices in Belgrade (nature): branch office for protection and use of natural goods and resources and branch office for environmental protection concerning fishery.

Data basis as outputs of this regulations

As referred to in Article 38, hereof, a competent body keeps the Register on Poisons. Data sources for the Register on poisons are documents along with applications, information collected from legal entities dealing with production, trade, control or testing of poisons and information from data banks of other countries and international organizations. Data from the Register may be used upon

approval of the competent body. In conformity with Article 40 thereof, legal entities and entrepreneurs producing or trading poisons shall inform the competent body on poisons they produce, or cease to produce or trade in poisons within eight days from the day of starting or terminating production or trade of poisons. Although there are numerous data in hard copy this Register is not in electronic form. Data on legal entities meeting criteria concerning poison production and trade are in electronic form.

As referred to in Article 25 hereof, legal entities producing or trading poisons or testing or using poisons shall inform the Poison Control Center on poisons they produce, sale, test or use. Although there is an electronic database in the Poison Control Center, it is not comprehensive because data are not submitted regularly.
It can be concluded that this Law does not regulate adequately forms and methods of data submission, maximum residue values requiring data submission and other necessary details for an adequate data submission. The Law does not provide a possibility for these details to be defined by by-law regulations.

By-laws for the Law Enforcement	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Decision on Marking Poisons in Trade „Official Gazette of FRY“, No. 38/97	MESP	Poisons	This Decision regulates indication of danger and warning labels concerning types, meaning, shape, color, tension and symbols used for marking poisons in trade.
Decision on Conditions to be Met by Legal Entities and Entrepreneurs Producing, Trading and Controlling Poisons „Official Gazette of FRY“, No. 30/96	MESP	Poisons	This Decision regulates conditions to be met by legal entities producing, trading or controlling poisons and entrepreneurs that are retail traders.
Decision on Conditions to be Met by Legal Entities performing activities of the Poison Control Center „Official Gazette of FRY“, No. 30/98	MESP	Poisons	This Decision regulates conditions concerning staff, equipment and plants to be met by legal entities performing activities of the poison control center.
Regulations on criteria concerning classification of poisons into groups and methods for defining degree of poisonousness „Official Gazette of FRY“, No. 79/91	MESP	Poisons	The regulations define criteria concerning classification of poisons into groups and methods to determine degree of poisonousness of poisons.
Regulations on conditions to be met by institutions providing toxicological evaluation of poisons and institutions providing poison effectiveness evaluation „Official Gazette of FRY“, No. 22/92	MESP	Poisons	The regulations define criteria concerning staff, premises, equipment and instruments to be met by institutions providing toxicological evaluation of poisons and institutions providing poison effectiveness evaluation.
Regulations on methods of destruction of unused poisons and packaging used for packing of poisons and methods of market withdrawal of poisons „Official Gazette of SFRY“, No. 7/83	MESP	Poisons	The regulations define methods of destruction of unused poisons and packaging used for packing of poisons and methods of market withdrawal of poisons.
List of poisons whose production, trade and use are prohibited „Official Gazette of FRY“, No.72/06	MESP	Poisons	The List of poisons whose production, trade and use are prohibited.
List of poisons classified into groups „Official Gazette of FRY“, No.12/00	MESP	Poisons	List of poisons classified into groups according to the degree of poisonousness.
Legal Instruments	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Law on Plant Protection („Official Gazette of FRY“, No. 24/98, 26/98 and „Official Gazette of RS“, 101/05 – second version)	MAFWM - DPP	Plant protecting agents (pesticides) and plant nutrition (fertilizers)	This Law defines conditions for registration (authorization) for putting on the market, production, import and wholesale and retail sale of pesticides and fertilizers.

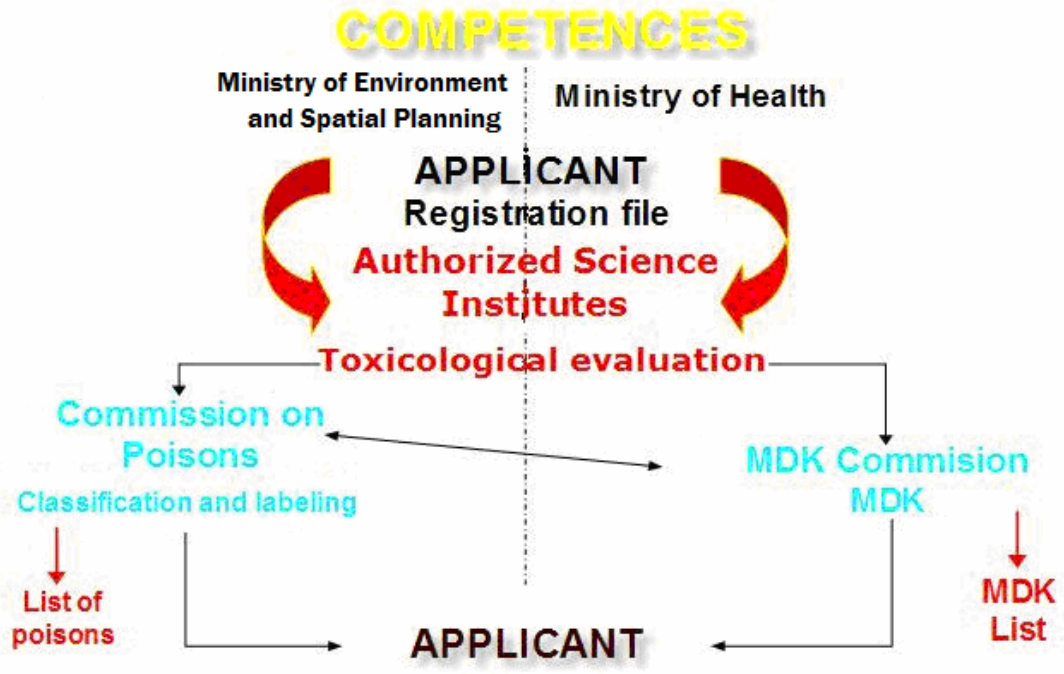
Brief description of regulations including also areas not covered by the regulations

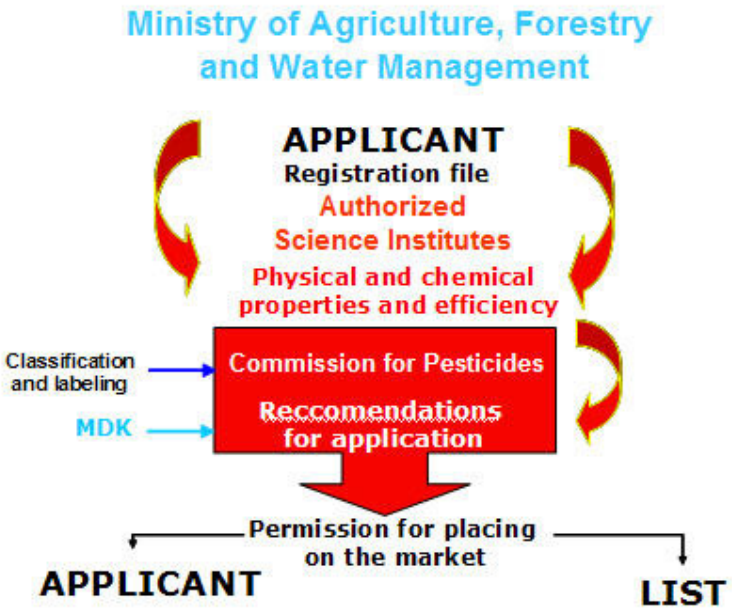
The Law covers plant protection from pests, plant protecting agents (pesticides) and plant nutrition (fertilizers). The Law, as regards pesticides and fertilizers, sets conditions for registration (authorization) for putting on the market, production, import and wholesale and retail sale of pesticides and fertilizers. Moreover, the Law regulates monitoring, forecasting and reporting on occurrences and distribution of pests, organization of prevention and prescribing and undertaking pest control measures; keeping records on pest appearance and measures undertaken; control over plant health (term "plant" covers live plants, portion of plant and plant products);

control over pesticide residues in and on plants, soil and water: delivering services regarding implementation of plant protecting measures and supervision over production, trading, import and local trading of plants, plant protecting and nutrition agents. As regards pesticides, the Law on Plant Protection does not cover pesticides used in public hygiene.

Competent government body

The Ministry of Agriculture, Forestry and Water Management - Directorate for Plant Protection is in charge of all procedures defined by the Law on Plant Protection. The jurisdiction is at the national level.





List of chemicals covered and/or criteria applied for selection of chemicals covered

List of active substances containing so far registered plant protecting agents (by 31/09/2006) is attached to this Document.

Criteria defining when it is possible to place plant protecting agents on the market are as follows:

- substances efficient for specific purposes (such as substances for pest control, growth regulator, adjuvants, wetting agents,

etc.), efficiency tested based on prescribed methods and evaluation based on prescribed criteria;
- chemical and physical properties for plant protection tested and adequate for application and storage; properties tested based on prescribed methods and evaluation based on prescribed criteria;
- substances do not have any unacceptable effect to plants and plant products on which they are applied, to adjacent plants or following plant in alternation of crops;
- substances do not have any direct or indirect negative impact to the human health and animals (drinking water, food, feed);
- substances do not have any unacceptable impact to the environment (water contamination – drinking water, underground water, non-targeted organisms);
- defined maximum residue values (MRLs) in agricultural production (as provisional or permanent).

Monitoring enforcement mechanisms (inspections, reporting requirements)

The enforcement is supervised by Phytosanitary Inspection of the Directorate for Plant Protection: Border and Internal Phytosanitary Inspection Units. The Border phytosanitary unit, at defined border crossings, control besides plants also import of plant protecting and nutrition agents, i.e. determines whether they are registered to be trade in our country and whether the quality satisfies set conditions.

Internal phytosanitary inspection is organized in 6 sectors (covering 25 districts), that supervise not only production and simple plant processing and storing, but also plant protecting and nutrition agents quality and methods of their application in conformity with the good agricultural practice and good plant protection practice. Moreover, the phytosanitary inspectors control also plant producers in terms whether they use plant protecting agents in areas where their use is prohibited or restricted and in terms of correct use of machineries, equipment and devices for their application. Furthermore, the phytosanitary inspectors supervise entities dealing with production, trade and import of pesticides and fertilizers. Inspections are planned annually.

The phytosanitary inspectors submit monthly reports thereof. Monthly reports of the phytosanitary inspectors are processed by the Directorate for Plant Protection (Analytical Department) and reports issued quarterly.

Data basis as outputs of this regulation

Development of a database covering the overall scope of work of the Directorate for Plant Protection. As concerns pesticides and fertilizers, currently there are only lists containing data from issued licenses for placing on the market, data on producers, authorized agents and importers, list containing data on plant protecting agent broken down by purpose, plant classifications. Moreover, Directorate for Plant Protection keeps records on import of active substances and commercial preparations as of January 1, 2006 and publishes data quarterly on the web-site of the Ministry.

By-laws for the Law Enforcement	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Regulations on Pesticide Testing Methods „Official Gazette of FRY“, No. 63/01, 65/01 and „Official Gazette of RS" 94/05	MAFWM - DPP	Plant protecting agents (pesticides)	The Regulations define testing of chemical and physical properties of pesticides, criteria for evaluation of chemical and physical properties of pesticides and their effectiveness, documentation needed for registration, registration procedure, and contents of Decision on trading.
Regulations on pesticide production line „Official Gazette of FRY“, No. 68/01	MAFWM - DPP	Plant protecting agents (pesticides)	The Regulations define criteria to be met by production lines for specific pesticide formulations.
Regulations on Trading, Import and Sampling of Pesticides „Official Gazette of FRY“, No. 59/01 and „ Official Gazette of RS“, 104/05	MAFWM - DPP	Plant protecting agents (pesticides)	The Regulations define conditions concerning trade and import of pesticides and inspection procedures.
Regulations on Trading, Import and Sampling of Fertilizers “Official Gazette of FRY”, No. 59/2001	MAFWM - DPP	Plant nutrition agents (fertilizers)	The Regulations define conditions for whole and retail trading of fertilizers to be met by legal entities and entrepreneurs, import and sampling of consignment containing active components - raw material for production of fertilizers and finished fertilizer products aimed at testing the quality when imported and in in-land trade at local producers and in wholesale and retail sale.
Regulations on types of packaging for pesticides and fertilizers and destruction of pesticides and fertilizers „Official Gazette of FRY“, No. 35/99	MAFWM - DPP	Plant protecting agents (pesticides) and plant nutrition agents (fertilizers)	The Regulations define types of packaging for pesticides and fertilizers, methods for package collection from end-users - collection centers for collection of packaging for pesticides and fertilizers and residues.
Regulations on provision of services in the field of plant protection „Official Gazette of FRY“, No. 42/99	MAFWM - DPP	Plant protecting agents (pesticides) and plant nutrition agents (fertilizers)	The Regulations define advisory and operational services, certifying machineries and equipment for application of pesticides and fertilizers; Decree on forecasting and reporting activities, activities of collection centers for collection of packaging for pesticides and fertilizers and pesticide residues.
List of small crops and plantation for registration of pesticides „Official Gazette	MAFWM - DPP	Plant protecting agents (pesticides)	The Regulations define a list of crops and plantations for which accelerated procedure for pesticide registration is in force (expertise) – recognition of results of testing done by

of FRY “, No. 24/03			other European countries with similar climate conditions.
Decree on forecasting and reporting activities „Official Gazette of FRY“, No. 65/99	MAFWM - DPP	Plant protecting agents (pesticides)	The Regulations define methods for forecasting and reporting activities defined in Article 5 of the Law on Plant Protection - concerning pesticides activities of regional centers for data collection on trade and application of pesticides and collection of packaging for pesticides and fertilizers and pesticide residues.
Regulations on (MPL) maximum permitted levels of hazardous materials in animal feed „Official Gazette of SFRY“, No. 2/90 (passed on the ground of the Law on Protection of Animals from infectious diseases endangering the whole country („Official Gazette of SFRY“, No. 43/86 and 53/91 and „Official Gazette of SRY“, No. 24/94 and 28/96), ceased to be in force when the Law on Veterinary medicine („Official Gazette of RS“, No. 91/05) was adopted, but the afore-mentioned Regulation is still in force)	MAFWM - DPP	List of substances: aldrin and dieldrin (calculated as total dieldrin), DDT and derivates (calculated as total DDT), endrin, hepachlor and heptachlorepox (calculated as total heptachlorepox, etc), HCH, HCN (alpha + beta + delta, lindan (gama HCH).	The Regulations define safety (health safety) of animal feed. The Regulations is adopted in line with registered pesticides in crops used for production of compound feed, good agricultural practice and active substances in the environment (in conformity with regulations adopted in early `90s).
Regulations on MPL of dangerous and hazardous substances in soil and water used for irrigation and testing methods „Official Gazette of RS“, 23/94 (passed based on the Law on Agricultural Land ("Official Gazette of RS" No. 49/92, 53/93, 67/93, 48/94, 46/95, 54/96, 14/00 и 101/05), ceased to be in force by adoption of a new Law on Agricultural Land („Official Gazette of RS“, No. 62/06), but the afore-said Regulation is still in force)	MAFWM - DPP	List of substances: cadmium, lead, mercury, arsenic, chrome, nickel, fluorine, copper, zinc, boron, atrazine, simasin.	The Regulations define MPL of dangerous and hazardous substances in soil and water used for irrigation that can damage or modify fertility of agricultural land and water quality used for irrigation and water released from plants, seepage from dumps, irregular use of mineral fertilizers and plant protecting agents. The Regulations has the objective to preserve soil fertility and water quality used for irrigation; it refers to registered pesticides in early `90 and the good agricultural practice as well as active substances in the environment (soil).
Regulations on conditions to be met by institutions to perform disinfection, desensitization and deracination "Official Gazette of SFRY", No. 22/88 (passed based on the Law on Protection of Animals from infectious diseases endangering the whole country („Official Gazette of SFRY“, No. 43/86 and 53/91 and „Official Gazette of SRY“, No. 24/94 and 28/96), ceased to be in force when the Law on Veterinary medicine („Official Gazette of RS“, No. 91/05) was adopted, but the afore-mentioned Regulation is still in force)	MH	Disinfection, desensitization and deracination agents	The Regulations define conditions in terms of staff, equipment and resources to be met by institutions dealing with veterinary medicine and other institutions (hereinafter: institutions) to perform disinfection, desensitization and deracination aimed at preventing infectious animal diseases.
Legal Instruments	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Law on Transportation of Dangerous Goods „Official Gazette of SFRY“, No. 27/90, 45/90 and „Official	MI, MIA, MESP	Dangerous goods according to criteria stated in ADR/RID	The Law regulates conditions to perform transport of dangerous goods and actions related to the transport (preparation of goods for transport, loading, unloading and handling), as well as supervision over enforcement of the

Gazette of FRY“, No. 24/94, 28/96, 21/99 and 44/99			Law.

Brief description of regulations including also areas not covered by the regulations

The Law on Transportation of Dangerous Goods regulates conditions for transport of dangerous goods and actions related to the transport (preparation of goods for transport, loading, unloading and handling), as well as supervision over enforcement of the Law.
Namely, the Law defines classes of dangerous goods that are covered by the Law, handling and exclusively adequately trained people as well as conditions to be met by companies providing training shall perform transport of dangerous goods. The Law also defines that companies and other legal entities transporting dangerous goods and performing actions related to the transport shall organize permanent control over measures implementation and fulfillment of conditions prescribed for transportation of dangerous goods in conformity with provisions of the Law, pertaining secondary legislation and international agreements on transportation of dangerous goods in certain transportation means. Furthermore, the Law defines joint security measures for all dangerous goods or for certain types of goods (rules for packaging, MEGC, containers and tanks), as well as transport, procedures and actions regarding the transport, in terms of packaging, loading unloading and transport. Explosives, gasses, flammable liquids, poisons and radioactive substances are covered in the section of the Law dealing with special safety measures for transport of certain types of dangerous goods.

This part of the Law regulates also special safety measures to be undertaken by a competent body such as deciding the route, special transport escort, etc.

The law regulates also special safety measures for transport of dangerous goods broken down by means of transportation.
As concerns, the road transport there is a general provision regulating that besides safety measures set by the Law, provisions of the Agreement on Transport of Dangerous Goods by road (ADR) shall also be implemented.

It is interesting to stress that besides these general provisions for ADR implementation, various other provisions prescribing certain measures direct to the implementation of the ADR. e.g., in provisions on mandatory presence of co-driver, requirements regarding parking, and especially in provisions on specially designed transport units and conditions to be fulfilled by vehicles as well as marking of vehicles.

For railway transport there is a general provision on implementation of provision of the International Agreement on Transportation of Dangerous Goods (RID).

As regards inland waterway transport (river transport) the Law defines that provisions of the International Convention on Protection of Human Life on sea in its part concerning the transport of dangerous goods shall be enforced i.e. the international regulations concerning the transport of dangerous goods in inland waterways (ADN) are not introduced.

As regards air transport there is a general provision on implementation of Annex 18 (safe air transport of dangerous goods) along with Convention on International Civil Aviation (Chicago, 1944), as well as technical instructions to the Annex.

As regards the postal transport, it is defined that solely those dangerous goods whose transport is permitted by the international mail transport by provisions of the Universal Postal Convention and Arrangement on Postal Parcels shall be transported in the internal postal transport.

Provisions of the Law apply to the transport of dangerous goods by SFRY military vehicles.

Provisions of the Law do not apply to the fuel in the tank of vehicles or to other dangerous goods used for driving placed in appropriate containers, part of the vehicles.

Competent government body

The Law on Transportation of Dangerous Goods and Decree on Transport of Dangerous Goods by Rail and by Road „Official Gazette of RS“, No. 53/02, adopted to define more closely jurisdictions for internal transport define that for the internal transport and crossing state border (import, export, transit) of explosives, poisons, radioactive substances and dangerous waste the approval of the following competent bodies is needed:

- for explosives - Ministry of Interior Affairs;
- for poisons when crossing the state border - Ministry of Environment and Spatial Planning together with approval by the Ministry of Interior Affairs; and for internal transport - Ministry of Infrastructure (the Ministry in charge of transport issues);
- for radioactive material when crossing the state border - Ministry of Environment and Spatial Planning together with approval by the Ministry of Interior Affairs; and for internal transport - Ministry of Environment and Spatial Planning;
- for dangerous waste when crossing the state border - Ministry of Environment and Spatial Planning.

As regards the Law implementation, the following governmental bodies have the following responsibilities:

- Ministry of Interior Affairs together with the Ministry of Infrastructure and Ministry of Environment and Spatial Planning produces regulations regarding transport of dangerous goods by road, professional training for drivers and the crew as well as technical conditions that need to be met by companies providing the training;
- Ministry of Infrastructure in cooperation with Ministry of Interior Affairs and Ministry of Environment and Spatial Planning produces regulations regarding transport of dangerous goods by rail;
- Ministry of Infrastructure in cooperation with Ministry of Interior Affairs and Ministry of Environment and Spatial Planning produces regulations regarding transportation of dangerous goods in maritime transport;
- Ministry of Infrastructure in cooperation with Ministry of Interior Affairs and Ministry of Environment and Spatial Planning produces regulations regarding transportation of dangerous goods in river transport;
- Ministry of Infrastructure grants overflight right to aircrafts loaded with dangerous goods through the national territory in

cooperation with a body responsible for defense, interiors and foreign affairs;
- Ministry of Infrastructure in cooperation with Ministry of Interior Affairs and Ministry of Environment and Spatial Planning produces regulations on air transport of dangerous goods.

As regards the Law implementation, administrative authorities of the republic and autonomous province have the following responsibilities:
- conditions for companies providing training to people handling and transporting dangerous goods;
- conditions for handling areas;
- prohibition of transport of certain dangerous goods through certain areas and requiring transport by certain transportation mean;
- approval for transport of explosives in inland transport;
- approval for transport of poisons in inland transport;
- approval for transport of radioactive substances in inland transport;
- establishment and maintaining of data basis on types of dangerous goods, their properties and risks to human health and material assets and measures to prevent or control risks and on companies and individuals that can provide assistance in terms of risk control.

Yugoslavian Vessel Register sets technical rules on vessel suitability for transport of dangerous goods in water traffic and inland waterways.

Note: The afore-said bodies are those that in conformity with the Law on Ministry of 2003 have undertaken activities previously performed by federal bodies stated in the Law on Transportation of Dangerous Goods. Namely, the Law prescribes that the Ministry in charge of environmental protection issues are to undertake responsibilities concerning poisons and chemicals management from the federal bodies in charge of health.

List of chemicals covered and/or criteria applied for selection of chemicals covered

Dangerous goods are defined by the European Agreement on International Transport of Dangerous Goods by Road (ADR) and International Transport of Dangerous Goods by Rail (RID).

According to criteria stated in ADR, all dangerous goods are classified as follows: Class 1 - explosive substances and articles; Class 2 - gasses; Class 3 - flammable liquids; Class 4.1 - Flammable solids, self-reactive substances and solid desensitized explosives; Class 4.2 -substances liable to spontaneous combustion Class 4.3 - substances which in contact with water emit flammable gases; Class 5.1 - oxidizing substances; Class 5.2 - organic peroxides; Class 6.1 - toxic substances; Class 6.2 - infectious substances; Class 7 - radioactive material; Class 8 - corrosive substances; Class 9 - miscellaneous dangerous substances and articles.

Chapter 3.2 of RID/ADR provides a List A with 3,376 types of dangerous substances defined according to UN number (UN numbers - four-digit numbers for marking substances and articles according to the UN Model Regulations).

A special chapter of the Part 2 of RID/ADR provides detailed criteria for each class:
- criteria for classification of substances into classes;
- classification into groups depending on hazardous properties, e.g. A - oxidants, F - flammable, T - toxic substances, TF - flammable toxic substances, TO - toxic substances oxidizing;
- In accordance with the degree of danger they present, for the RID purpose and in line with LD_{50} values for acute toxicity: by swallowing, through skin or by inhalation of the packing group: I - substances presenting high danger, II -substances presenting medium danger and III-substances presenting low danger;
- pesticides are classified separately;
- classification of miscellaneous dangerous substances;
- transport prohibition.

Data on substances are provided in Table A of the Chapter 3.2 RID/ADR (example in attachment refers to liquid petroleum gas) providing data on all persons participating in the transport. For each substance there are the following data:
- hazardous properties;
- special provisions valid for some substances that are being transported or a need to apply special measures during the transport;
- quantities below which regulations RID/ADR are not applicable;
- packaging instructions, special packing provisions and mixed packing provisions;
- instructions and special provisions for portable tanks;
- RID/ADR tanks
- maximum allowed quantities per carriage or big container;
- special provisions for transport concerning consignment, substances in bulk, loading, unloading and handling.

Example from Table A for liquid petroleum gas - Chapter 3.2 RID/ADR.

Broj UN	Naznačenje i opis 3.1.2	Razred 2.2	Kod klasifikacije 2.2	Grupa ambalaže 2.1.1.3	Listica opasnosti 5.2.2	Posebni propisi 3.3	Ograničenje količine 3.4.6	Pakovanje: Uputstva 4.1.4	Pakovanje: Posebni propisi 4.1.4	Pakovanje: Zajedničko pakovanje 4.1.10	Pokretni tankovi: Uputstva 4.2.4.2	Pokretni tankovi: Posebni propisi 4.2.4.3	RID - Tankovi: Kodiranje tankova 4.3	RID - Tankovi: Posebni propisi 4.3.5 +6.8.4	Kategorija prevoza 1.1.3.1 c)	Posebni propisi za prevoz: Koreadi za opremu 7.2.4	Posebni propisi za prevoz: Rasuto stanje 7.3.3
(1)	(2)	(3a)	(3b)	(4)	(5)	(6)	(7)	(8)	(9a)	(9b)	(10)	(11)	(12)	(13)	(15)	(16)	(17)
1075	TEČNI NAFTNI GAS	2	2F		2.1 (+13)	274 583 639	LQ0	P200		MP9	T50		PxBN(M)	TM6	2		

Enforcement monitoring mechanisms (inspections, reporting requirements)

Inspection supervision over enforcement of the Law, pertinent secondary regulations and international agreements are directly performed by ministries which implement the Law (Ministry of Interior Affairs, Ministry of Infrastucture and Ministry of Environment and Spatial Planning)

Supervision over enforcement of the Decree on transport of dangerous goods by road and by rail („Official Gazette of RS“, No. 53/02), adopted to define more closely jurisdictions over in-land transport is performed by the Ministry of Interior Affairs, Ministry of Infrastructure and Ministry of Environment and Spatial Planning.

For transport by road jurisdictions are as follows:

1) for classes 1, 2, 3, 4 and 5 - Ministry of Interior Affairs;
2) for classes 6, 8 and 9 - Ministry of Infrastructure;
3) for classe7 and dangerous waste - Ministry of Environment and Spatial Planning.

For transport by rail:

1) for class 1 - Ministry of Interior Affairs;
2) for classes 2, 3, 4, 5, 6, 8 and 9 - Ministry of Infrastructure;
3) for class 7 and dangerous waste - Ministry of Environment and Spatial Planning.

Supervision over enforcement of the Law is performed by inspection services of the afore-mentioned Ministries.
The Advisor for safe transport of dangerous goods is introduced in conformity with provisions of Chapter 1.8.3 of RID/ADR and it is a key element ensuring enforcement of the regulation and improvement of safety in handling and transport of dangerous goods.
Enforcement of regulations and improvement of safety of handling and transport of dangerous goods are ensured through the following procedures defined by RID:

- set responsibilities and tasks for Safety Advisor as referred to in 1.8.3.3 of RID:
- monitoring compliancy with requirements governing producers of goods and equipment, testing of materials for packing, special requirements concerning identification of particular requirements for transported goods, special requirements concerning selection of sub-contractor for handling and transport;
- training of the staff and maintenance of records of such trainings; verification whether the staff are provided with detailed explanations and guidance; implementation of proper emergency procedures in the event of any accident or incident that may effect handling and transport of dangerous goods; preparation of loading and unloading procedures;
- advising company management on measures to reduce risks and measures to be undertaken in case of accidents and incidents, accident investigation and preventive safety measures;
- drafting of annual plans;
- set knowledge and testing procedure for candidates and authorized competent bodies applying for a position of the Safety Advisor;
- company obligation to appoint one or more advisors;
- provision of information to the Central Office of the country member of the Convention concerning International Carriage by Rail (COTIF) regarding appointed competent bodies responsible for handling and transport of dangerous goods (body and advisor), information on accidents.

The Advisor shall report to the competent governmental body on transport of dangerous goods annually. According to the experiences of EU countries, reports should cover as follows:

- so-called "minimum contents" for simple cases; companies transporting relatively small quantities of dangerous goods and/or transporting one type of substance, one handling area, day-shift work, etc.;
- any particular and specific characteristic of the companies dealing with complex handling and transport of dangerous goods: data on dangerous goods transported by those companies, routes, vehicles used, handling areas, persons in charge of handling and transport of different dangerous goods with an analytical unit within the company monitoring circumstances and effects, etc.

Such reports provide a comprehensive data to be processed: analytically - aimed at safety improvement and statistically - aimed at operational interventions of competent bodies.

An example of data that should be included in the reports:

- company lines of business;
- types of vehicles used for transport;
- territory on which the transport is performed, types of material and directions for goods transported outside the afore-mentioned territory;
- quantity of dangerous goods broken down by types;
- quantity of arrived and dispatched goods;
- data on vehicles used with technical characteristics in relation to the RID/ADR/ADN requirements;

- packing of dangerous substances, UN numbers;
- data on staff participating in certain handling and transport operations of dangerous goods;
- data on accidents and incidents.

Data basis as outputs of this regulation

In conformity with provisions of Article 112 competent bodies of the Republic are responsible for setting and maintaining database on types of dangerous substances, their properties that present risks to the human health and material assets, measures to be undertaken to prevent or control risks and on companies and individuals that can provide assistance in terms of risk control.
Since the competent body is not defined, the databases have never been established.
In the Traffic Safety Department within the Ministry of Infrastructure there is a list of transporters provided with licenses to transport dangerous substances of class 6.1 (toxic substances) and other substances having toxic properties in in-land transport.

Since the Ministry of Environment and Spatial Planning is responsible, according to the Law, for issuing licenses for import and export of toxic substances, upon initiative of an inspector at the border crossing an electronic database on toxic substances import and export is established. It refers only to import/export at border crossings in Southern Serbia and it contains quantities and types of poisons imported or exported in past two years. Moreover, the data base contains data on other goods for foreign trading of which the Ministry of Environment and Spatial Planning is responsible in terms of issuing licenses and for which inspectors are performing inspections at border crossings.

By-laws for the Law Enforcement	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Regulations on transport of dangerous goods by road „Official Gazette of SFRY“, No. 82/90	MI, MIA, MESP	Dangerous substances according to ADR	The Regulations define transport of dangerous goods, measures to be undertaken in preparation of transport and supervising measures.
Regulations on professional training for drivers of vehicles transporting dangerous goods and crew members „Official Gazette of SFRY“, No. 17/91	MI, MIA	Dangerous substances according to ADR and RID	The Regulations define curricula for trainings of drivers of motor vehicles transporting dangerous goods and others taking part in preparation of transport of dangerous goods.
Regulations on technical requirements to be met by companies providing professional training of drivers transporting dangerous goods and crew members „Official Gazette of SFRY“, No. 76/90	MI, MIA	Dangerous substances according to ADR and RID	The Regulations define technical requirements to be met by companies providing professional training of drivers transporting dangerous goods and crew members
Regulations on Transport of Dangerous Goods by Railway „Official Gazette SFRY“, No. 25/92	MI, MIA, MESP	Dangerous substances according to RID	The Regulations define transport of dangerous goods by rail from acceptance to dispatch
Guidance for transport of dangerous goods	Official Gazette of Public Railway Company	Dangerous substances according to RID	The Guidance provide detailed provisions of the regulations above
Decree on transport of dangerous goods by road and by rail „Official Gazette of RS“, No. 53/02	MI, MIA, MESP	Dangerous substances according to ADR/RID	This Decree closely defines conditions and terms for transport of dangerous goods by road and by rail and supervision over transport on the territory of the Republic of Serbia
Legal Instruments	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Law on Occupational Health and Safety „Official Gazette of RS“, No. 101/05	MLSP	Dangerous substances	The Law regulates implementation and enhancement of occupational health and health of employees or other people who might be present in the working environment, aimed at prevention of injuries at work, occupational diseases and illness.

Brief description of regulations including also areas not covered by the regulations

The Law regulates implementation and enhancement of occupational health and health of employees or other people who might be present in the working environment, aimed at prevention of injuries at work, occupational diseases and illness. The Law provides ground for pertinent secondary regulations regulating preventive measures in terms of occupational safety and health through application of modern technical, ergonomic, health, education, social, organizational and other measures and resources aimed at risk control from health injuries and health deterioration of employees i.e. reduction of risks to the lowest possible extent in the process of production, packing, transporting, warehousing, using and destroying of dangerous goods in such a way to prevent injuries or risks to human health.

This Law defines an obligation to ensure working equipment, resources and equipment for occupational safety and training of employees to work with dangerous goods.

Competent government body

Directorate for Occupational Safety and Health was established by the Law on Occupational Safety and Health („Official Gazette of RS“, No. 101/05). The Directorate is within the Ministry of Labor and Social Policy.

List of chemicals covered and/or criteria applied for selection of chemicals covered

Dangerous substances: explosives, flammable, oxidizing, poisonous, infectious, corrosive, cancerougenic and radioactive substances, defined by standards and other regulations, produced, stored as well as substances whose properties are dangerous to the workers' life and health when associated with other substances.

Enforcement monitoring mechanisms (inspections, reporting requirements)

Supervision over the enforcement of the Law is performed by the labor inspection.

Data basis as outputs of this regulation

According to this Law, Regulation on Evidences in Occupational Health and Safety field is prepared („Official Gazette of RS“, No. 62/07) according to which employer has an obligation to keep records on dangerous substances used at work.

By-laws for the Law Enforcement	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Regulations on programs, methods and fees concerning taking examination of vocational ability to perform activities regarding occupational safety and health and activities of a responsible person „Official Gazette of RS“, No.29/06	MLSP - DOSH	Dangerous substances as defined by the Law on Occupational Safety and Health	The Regulations define programs, methods and fees concerning taking examination of vocational ability to perform activities regarding occupational safety and health and activities of a responsible person.
Regulations on conditions and fee amount for issuing of licenses for activities concerning the occupational safety and health „Official Gazette of RS“, No. 29/06 and 72/06	MLSP - DOSH	Dangerous substances as defined by the Law on Occupational Safety and Health	The Regulations define conditions and fee amount for issuing of licenses: a) to legal entities or entrepreneurs dealing with the occupational safety and health; б) legal and responsible entities dealing with testing and examining equipment and working conditions.
Regulations on Procedure verifying fulfillment of requirements in terms of occupational safety and health „Official Gazette RS“, No. 60/06	MLSP - DOSH	Dangerous substances as defined by the Law on Occupational Safety and Health	The Regulations define procedures verifying fulfillment of requirements in terms of occupational safety and health.
Regulations on contents and methods concerning issuing of reports regarding injures at work and occupational and related diseases „Official Gazette of RS“, No. 72/06 and 84/06	MLSP - DOSH	Dangerous substances as defined by the Law on Occupational Safety and Health	The Regulations define contents and methods concerning issuing of reports regarding industrial accidents and occupational diseases.
Regulations on procedures concerning occupational risk evaluation and working environment evaluation „Official Gazette of RS“, No.72/06 and 84/06	MLSP - DOSH	Dangerous substances as defined by the Law on Occupational Safety and Health	The Regulations define procedures concerning evaluation of occupational risks from injuries at work or health deterioration, occupational diseases concerning job and working environment as well as methods and measures for risk prevention, regulated by the employer through the risk assessment act.
Regulations on safety at work and technical measures for acetylene generators and acetylene stations „ Official Gazette of SFRY“, No. 6/67, 29/67, 27/ 69, 52/90 and 6/92	MLSP - DOSH		
Regulations on technical and health-technical protection measures in chemical and technological processes „Official Gazette of FNRY“, No.36/58	MLSP - DOSH		

Legal Instruments	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Law on Fire Protection „Official Gazette of SRS“, No. 37/88, „ Official Gazette of RS“, No. 53/93, 67/93, 48/94	MIA	None	Provisions of the Law refer to undertaking of measures necessary for the fire protection and prevention. Restrictions are not defined.

Brief description of regulations including also areas not covered by the regulations

Provisions of the Law refer to undertaking of measures necessary for the fire protection and prevention. Restrictions are not defined.

Competent government body

Ministry of Interior Affairs - Sector for Protection and Rescuing and branch offices.

List of chemicals covered and/or criteria applied for selection of chemicals covered

None

Monitoring Enforcement Mechanisms (inspections, reporting requirements)

The Ministry of Interior Affairs - Sector for Protection and Rescuing – Department for Preventive Measures supervises enforcement of the Law and punitive provisions are defined in the case of breaching of the regulation.

Data basis as outputs of this regulation

The Ministry of Interior Affairs of the Republic of Serbia has a single data base concerning issuing of approvals in terms of applied and implemented fire protection measures.

By-laws for the Law Enforcement	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Decree on basis, standards and conditions for classification of organizations and bodies in proper fire risk categories „Official Gazette of SRS” No. 58/89, 4/90	MIA	None	This Decree defines more closely basis, standards and conditions for classification of organizations of associated labor and other self-management organizations and government bodies in proper fire risk categories. Classification of organizations and bodies into proper fire risk categories is performed aimed at setting adequate fire protection and other measures needed for successful operation and implementation of fire protection measures in organizations and bodies.
Regulations on conditions to perform actions concerning the fire protection improvement „Official Gazette of SRS” No. 26/85	MIA	None	The Regulations define more closely conditions in terms of technical equipment and human resources to be met by organizations of associated labor and other organizations dealing with fire protection improvement as follows: producing a study on fire protection organization; development of the fire risk assessment; producing a program on consolidation and improvement of the fire protection system; analysis of risk zones and defining risk zones where there is danger from explosive compounds through designing of devices and installations for fire detection, warning and fire fighting through analyzing physical and chemical properties of solid, fluid and flammable gases as well as use of these substances in facilities at risk of fire.
Regulations on organization and formation, operation and discipline in territorial fire brigades „Official Gazette of SRS” No. 62/82	MIA	None	The Regulations define organization and operations of territorial fire brigades, minimum number of firefighters required, minimum technical equipment required, operation services and discipline in territorial fire brigades.
Regulations on technical standards for the fire and explosive protection of warehouses „Official Gazette of SFRY” No. 24/87	MIA	None	The Regulations define technical measures of protection of warehouses from the fire and explosions. Provisions of the regulations are applied to warehouses used to store raw materials, semi-finished goods and finished goods. Provisions of the regulations are applied to the following: warehouses with load-bearing construction of no burning materials used to store no burning goods in no burning packing, shop warehouses, explosive warehouses, warehouses for flammable gases and liquids, portable tanks as well as warehouses of dangerous goods whereas hazard is not

			caused by the fire or explosion.
Regulations on technical standards for the fire and explosive protection when cleaning containers used for flammable liquids recipients „Official Gazette of SFRY“, No. 44/83 and 60/86	MIA	None	The Regulations define technical standards for the fire and explosive protection when cleaning containers used for transport or storing of flammable liquids that are liquid at normal pressure and temperature.
Regulations on technical standards for carbon dioxide fire extinguisher „Official Gazette of SFRY” No. 44/83 and 31/89	MIA	None	The Regulations define technical standards for automatic carbon dioxide fire extinguisher. Provisions of the regulations shall not apply to fire extinguisher on vessels and in underground mines.

Legal Instruments	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Law on Explosives and Flammable Liquids and Gases, "Official Gazette of SRS", No. 44/77, 45/85, 18/89, "Official Gazette of RS", No. 53/93, 67/93, 48/94	MIA	Explosives, flammable liquids and gases	The Law regulates production, trade and transport of explosives, flammable liquids and gases.

Brief description of regulations including also areas not covered by the regulations

Production, trade and transport of explosives, flammable liquids and gases is performed under terms and conditions defined by the Law and other pertinent secondary regulations. The Law does not cover production of explosives, flammable liquids and gases in military facilities and storage of explosives in underground mines.

Competent government body

Ministry of Interior Affairs - Sector for Protection and Rescuing and branch offices.

List of chemicals covered and/or criteria applied for selection of chemicals covered

The Law covers explosives (industrial explosives, initial explosives, pyrotechnic products, industrial ammunition, powder, raw materials with explosive properties for production of the afore-said substances), flammable liquids and gases.

Monitoring enforcement mechanisms (inspections, reporting requirements)

Supervision over the enforcement of the Law is performed by the Inspection of the Ministry of Interior Affairs - Sector for Protection and Rescuing Department for Preventive Measures and measures defined by the Law are applied in the case of breaching of the regulation.

Data basis as outputs of this regulation (e.g. database on licenses).

There is a database within the Ministry of Interior Affairs.

By-laws for the Law Enforcement	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Regulations on building of storage for flammable liquids and on storing and pouring of flammable liquids “Official Gazette of SFRY” No. 23/71	MIA	Flammable liquids	The Regulations define building of storage for flammable liquids and on storing and pouring of flammable liquids whose flammable point is below 100°C. The Regulations go along with the Technical guidance on building of storage for flammable liquids and on storing and pouring of flammable liquids.
Regulations on occupational safety when manufacturing explosives and powder and handling of explosives and powder “Official Gazette of SFRY” No. 55/69	MIA	Dangerous substances in terms of provisions of the Regulations are as follows: 1) brisant explosives: a) nitrate esters in acids: nitroglycerin, nitroglycol, nitrocellulose, pentrit, etc., b) aromatic nitro compound: trotyl, picric acid etc..	The Regulations define measures and safety standards at works for workers dealing with manufacturing, processing, re-processing, laboration and de-laboration, testing, destroying and storing of explosives and powder. Provisions of the Regulations refer to dangerous part of and production processes, operations, workplaces and overall operations and equipment in the process of manufacturing, processing, re-processing, laboration and de-laboration, testing, destroying and storing of the afore-said dangerous substances.

		nitramins: hexogen, tetryl, etc., c) compounds: trotil-hexogen, trotyl-pentryt, amatols, phlegmaticand plastified explosives, etc., d) all types of industrial explosives, 2) initial explosives: a) mercury fulminate, b) lead acid, c) lead trinitroresorcin, d) tetrasen e) dinitrodiazophenol, etc., 3) powders: a) smokeless single-base powder (nitrocellulose), b) smokeless double-base powder (nitroglyceric dinitrodilglicoloc) smokeless three-base powder (nitroguanidine), d) composite propellant mixture, e) black powder, 4) pyrotechnical compounds: signaling, tracers, light, flammable flares, smoke, initial and retarded, 5) agents filled with substances mentioned in items 1 - 4: fuses, caps, ammunition, etc.	
Regulations on building of stations to supply fuel to motor vehicles and storing and pouring of fuel "Official Gazette of SFRY" No. 27/71	MIA	Fuels	The Regulations define building of station to supply fuel to motor vehicles as well as fuel storing and pouring. Technical guidance is provided along with the regulations on building of stations to supply fuel to motor vehicles and storing and pouring of fuel. Unless otherwise regulated by this Guidance, some provisions of guidance on building of plants for flammable liquids and on storing and pouring flammable liquids ("Official Gazette of SFRY", No. 20/71) and Guidance on building of plants for liquid petroleum gas ("Official Gazette of SFRY, No 24/71) apply to tanks for stations where fuel for motor vehicles is stored in terms of designing, construction, equipment and marking.
Regulations on technical standards for equipment for application and drying of coatings "Official Gazette of SFRY" No. 57/85	MIA	Coatings are flammable liquid substances the components of which (as steam) may form explosive compounds in contact with the air	The Regulations define technical standards for equipment where coatings are applied and dried as well as for construction facilities i.e. premises where the equipment is installed. Provisions of the Regulations apply also to equipment for coating preparation.
Regulations on building plants for liquid petroleum gas and storing and pouring of liquid petroleum gas "Official Gazette of SFRY" No. 24/71 and 26/71	MIA	Liquid petroleum gas	The Regulations define that building of plants for liquid petroleum gas and storing and pouring of liquid petroleum gas are performed in accordance with the Technical Regulations on building of plants for liquid petroleum gas and storing and pouring of liquid petroleum gas, issued along with the regulations and represent the integral part.

Legal Instruments	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Law on Trade of Explosive Substances "Official Gazette of SFRY", No. 30/85, 6/89, 53/91, "Official Gazette of FRY", No. 24/94, 28/96, 68/2002	MIA	Explosive substances, objects filled with explosive substances and ignition agents	Defined conditions for trade of explosive substances.

Brief description of regulations including also areas not covered by the regulations

Trade of explosive substances is carried out under terms defined by the Law. Provisions of the Law do not apply to trading in explosive substances for military needs as well as storing of explosive substances in underground mine warehouses.

Competent government body

Ministry of Interior Affairs, Sector for Protection and Rescuing and branch offices.

List of chemicals covered and/or criteria applied for selection of chemicals covered

The law covers explosive substances, objects filled with explosive substances and ignition agents.

Monitoring enforcement mechanisms (inspections, reporting requirements)

Supervision over the enforcement of the Law is performed by the Inspection of the Ministry of Interior Affairs - Sector for Protection and Rescuing Department for Preventive Measures and measures defined by the Law are applied in the case of breaching of the regulation.

Data basis as outputs of this regulation

The Ministry of Interior Affairs has a database with data from licenses, investment and technical documentation, permits for trade in explosives, transport licenses, etc.

Legal Instruments	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Law on Foreign Trade in Weapons, Military Equipment and Dual-Use Goods, „Official Gazette of Serbia and Montenegro“, No. 7/2005	MERD, MFA, MD, MIA, MF-CA	Chemicals used as chemical weapons and chemicals with dual-use.	The Law regulates terms and conditions of foreign trading, transport and transit of weapons, military equipment and dual-use goods.

Brief description of regulations including also areas not covered by the regulations

The Law defines terms and conditions concerning foreign trading, transport and transit of weapons, military equipment and dual-use goods, defines their definitions, establishes the authority in charge of issuing licenses for export, import, transport, transit, brokering and services in foreign trade activities, stipulates conditions for issuing of licenses, responsibilities of competent bodies for the Law enforcement, supervision, inspection and punitive provisions in the case of violation of the Law. The Law applies to production, brokering and domestic trade in weapons, military equipment and dual-use goods (including dual-use chemicals).

Competent government body

Ministry of Economy and regional development is responsible body for issuing of licenses for foreign trade in controlled goods (import/export), with the approval of the Ministry of Defense and Ministry of Foreign Affairs required as well as an opinion of the Ministry of Interior Affairs. Transport and transit of weapons and military equipment (NVO) by road and waterways is subject to approval of the Ministry of Interior Affairs, and by air - the body in charge of the air transport. The approval is granted based on previously issued license of the Ministry of Economy and regional development concerning particular foreign trade activities and approval of the Ministry of Defense and Ministry of Foreign Affairs.

The necessary security measures are to be taken during the transport and transit of weapons and military equipment. Road and waterway transport and transit of weapons and military equipment on the territory of Serbia are to be conducted with an armed escort. Terms and methods of transport and transit of weapons and military equipment, security measures and supervision of this transport and transit on the territory of Serbia are prescribed by special regulations. Jurisdictions are at the Republic level.

List of chemicals covered and/or criteria applied for selection of chemicals covered

National Control List of dual-use goods include chemicals of category 1 – materials, chemicals, «microorganisms» и «toxins», harmonized with EU List of Dual-Use Goods and Technologies (Council Regulation (EC) No. 1334/2000). There should be harmonization with the latest amendments to the EU List of 2006 (Council Regulation (EC) No. 394/2006 of 27/ 02/ 2006).
National Control List of weapons and military equipment including chemicals used in military purpose.

Monitoring enforcement mechanisms (inspections, reporting requirements)

Ministry of Economy and regional development performs supervision and inspection in conformity with provisions of this Law and in cooperation with Ministry of Defense, Ministry of Interior Affairs, Ministry of Foreign Affairs, Custom Administration and security-information service bodies. Custom Administration, security-information service bodies and Inspections perform permanent control within their jurisdictions defined by the Law and provide reports to the Ministry of Economy and Regional Development thereof. Ministry of Economy and Regional Development informs the Ministry of Environment and Spatial Planning on issued licenses for import and export of dual-use goods in accordance with the National Control List – category 1 – materials, chemicals, «microorganisms» and «toxins». The Law envisages withdrawal of the license and penalties in case of the Law violation. Draft amendments envisage also criminal proceedings for prohibited actions violating the Law.

Data basis as outputs of this regulation (e.g. data base of licenses)

The Law envisages an obligation of the Ministry of Economy and Regional Development to create a database containing data on approved, denied and revoked licenses for foreign trade in controlled goods**.**

By-laws for the Law Enforcement	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Decision on setting a National Control List of Dual-Use Goods „Official Gazette of Serbia and Montenegro“, No. 11/05	MERD, MFA, MD	Dual-use chemicals	Establishing of the National Control List of Dual-Use Goods aimed at export and import controlling
Decision on setting a National Control List of Weapons and Military Equipment „ Official Gazette of Serbia and Montenegro“, No. 11/05	MERD, MFA, MD	Chemicals used in military purpose	Establishing of the National Control List of weapons and military equipment aimed at export and import controlling
Decision on criteria for issuing of licenses for export and import of weapons, military equipment and dual-use goods „ Official Gazette of Serbia and Montenegro“, No. 11/05	MERD, MFA, MD	Chemicals used in military purpose and dual-use chemicals	Defining of criteria for issuing licenses for import and export of controlled goods
Regulations on application form for issuing of licenses, approval form and other forms of documents concerning foreign trade in controlled goods „Official Gazette of RS“, No. 73/06	MERD, MFA, MD	Chemicals used in military purpose and dual-use chemicals	Setting of forms, i.e. documentation needed for foreign trade in controlled goods
Regulations on methods concerning keeping of a Register of people eligible to perform foreign trade in controlled goods „Official Gazette of Serbia and Montenegro“, No. 12/05 and „Official Gazette of RS“, No. 73/06	MERD, MFA, MD	Chemicals used in military purpose and dual-use chemicals	Defining methods concerning keeping of a Register of people eligible to perform foreign trade in controlled goods
Legal Instruments	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Law on Substances Used in Prohibited Production of Narcotic Drugs and Psychotropic Substances „Official Gazette of RS“, No. 107/05	MH	Substances used in prohibited production of narcotic drugs and psychotropic substances	The Law regulates conditions for production and whole trade of substances used for prohibited production of narcotic drugs and psychotropic substances (hereinafter: precursors), supervision in this field aimed at prevention of their abuse or use for prohibited purposes as well as other issues important for this matter.

By-laws for the Law Enforcement	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Decision on defining goods whose export, import i.e. trading is subject to special conditions „Official Gazette of RS“, No. 126/07	MF - Custom Administration, MESP, MH, etc.	Export and import of waste; ozone depleting substances; list of poisons; list of poisons of class 6.1. in	Goods whose export, import i.e. trading is subject to special conditions listed in the List of Goods printed together with this Decision as its integral part.

		conformity with ADR and RID, narcotic drugs and psychotropic substances	
Legal Instruments	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Law on Health Inspection of Food and General Goods "Official Gazette of SRS", No. 48/77, 29/88, "Official Gazette of RS", No. 44/91, 53/93, 67/93, 48/94	MH	Consumption goods: personal hygiene products, cosmetic preparations; washing preparations.	The Law is adopted aimed at ensuring health protection of citizens and it regulates health inspection over production and trade in food and certain consumption goods. The health inspection in terms of this Law includes as follows: foodstuffs, certain consumption goods and raw materials for their production; premises where foodstuffs and consumption goods are manufactures, stored and trade; plants, equipment, furniture and tools used for production and trade in food and consumption goods; people that in the process of production or trade are in contact with food and consumption goods.
By-laws for the Law Enforcement	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Regulations on quantities of pesticides, metals and semimetals and other toxic agents, chemotherapeutic, anabolic and other substances that might be contained in foodstuff „Official Gazette of FRY“, No. 5/92	MH, MAFWM - DPP	Pesticides, metals and semimetals and other toxic agents, chemotherapeutic, anabolic and other substances that might be contained in foodstuff	Food safety (health safety); list of substances with maximum allowed contents in food in conformity with registered pesticides of early `90s – good agricultural practice and population diet. The Regulations do not apply to new pesticides (registered after 1992).
Regulations on conditions regarding health safety of traded consumption goods «Official Gazette of SFRY", No. 26/83, 61/84, 56/86, 18/91	MH	Consumption goods: personal hygiene products, cosmetic preparations; washing preparations.	The Regulations define conditions concerning health safety of consumption goods aimed at their trading.
Legal Instruments	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Law on Sanitary Inspection "Official Gazette of SRS", No. 125/04	MH	Consumption goods: personal hygiene products, cosmetic preparations; washing preparations.	The Law regulates sanitary inspection activities, methods and procedures concerning the sanitary inspection, defines areas and facilities subject to the sanitary inspection and sanitary conditions to be met by those facilities as well as authorizations, rights and responsibilities of sanitary inspectors in the sanitary inspection procedure. Sanitary inspection is also a health inspection over food and consumption goods in production and trade, in conformity with the Law.
Environmental Protection Laws			
The system of legal framework concerning the environmental protection and improvement in the Republic of Serbia consists of numerous laws and other regulations (more than 100). A new legal framework for the environmental protection was introduced in Serbia in 2004 through the Law on the Environmental Protection (Official Gazette of RS”, No. 135/04), Law on Strategic Environment Impact Assessment (Official Gazette of RS”, No. 135/04), Law on Environment Impact Assessment (Official Gazette of RS”, No. 135/04) and Law on Integrated Pollution Prevention and Control (Official Gazette of RS”, No. 135/04). The main issues covered by the Law on the Environmental Protection (Official Gazette of RS”, No. 135/04) include as follows: main environmental protection principles, natural resources management and protection, measures and conditions for the environmental protection, programs and planning in the area of the environmental protection, industrial accidents, public engagement, monitoring and informational system, with clearly defined jurisdictions. The new laws are harmonized with EU Directive on environmental impact analysis (85/337/EEC), strategic environmental impact analysis (2001/43/EC), integrated pollution prevention and control (96/61/EC) and public engagement (2003/35/EC). Legislative, executive and judicial power is exercised mainly through by-the-law-defined scope of work and jurisdictions of republic bodies. The Law stipulates that some jurisdictions be passed to the autonomous province i.e. local self-governments. The issues of dangerous substances are in the jurisdiction of the republic bodies.			
Legal Instruments	**Responsible Governmental**	**Chemicals Covered**	**Objective of Legislation**

	Body		
Law on the Environmental Protection "Official Gazette of RS", No. 135/04	MESP	Dangerous substances, chemicals, ozone depleting substances and other substances with hazardous and dangerous properties	The Law regulates the environmental protection principles, natural resources management and protection, measures and conditions for the environmental protection, programs and planning in the area of the environmental protection, industrial accidents, public engagement, monitoring and informational system, with clearly defined jurisdictions of the Environmental Protection Agency, reporting, environmental protection financing, inspection and penalties.
By-laws for the Law Enforcement	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Decree on types of pollution, criteria for calculation of fees for environmental pollution and fee payers, fee levels, calculation method and collection "Official Gazette of RS", No. 113/05, 6/07	MESP; Fund for the Environmental Protection	Pollution refers here to all pollution of the environment caused by the following sources: emission of individual pollution sources produced or disposed waste of ozone depleting substances, motor vehicles.	The Decree closely regulates types of pollution, criteria for calculation of environmental pollution fee and fee payers, fee levels, calculation method and collection.
Decree on conditions for refunding, exemption from payment or reduction of the environmental pollution fee "Official Gazette of RS", No. 114/05	MESP; Fund for the Environmental Protection	Environmental pollution	This Decree closely regulates conditions for refunding, exemption from payment or reduction of the environmental pollution fee.
Regulation on methodology for Integral Cadastre of Polluters preparation "Official Gazette of RS", No. 94/07	MESP	Polluters and waste	This Regulation closely regulates methodology for integral cadastre of polluters preparation as well as type, manner, classification and deadlines for data submission.
Legal Instruments	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Law on Integrated Environmental Pollution Prevention and Control "Official Gazette of RS", No. 135/04"	MESP	Emissions in all environmental media	The Law regulates conditions and procedure concerning issuing of integrated license for plants and activities that can have negative impact to human health, the environment or material goods, types of activities and plants, supervision and other issues important for environmental pollution prevention and control.
By-laws for the Law Enforcement	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Decree on types of activities and plants for which issuing of integrates license is necessary "Official Gazette of RS", No. 84/05.	MESP	Emissions in all environmental media	This Decree regulates types of activities and plants for which issuing of integrates license is necessary.
Decree on contents of programs of measures concerning operations of current plants or activities with required conditions " Official Gazette of RS", No 84/05	MESP	Emissions in all environmental media	This Decree closely regulates contents of programs of measures concerning operations of current plants or activities with required conditions for integrated license issuing.
Decree on criteria for determining the best available techniques for quality standard implementation and setting marginal values of emissions for integrated license "Official Gazette of RS", No. 84/05	MESP	Emissions in all environmental media	This Decree regulates criteria for determining the best available techniques for environmental quality standards and setting marginal values of emissions for integrated license.
Regulations on contents and method of keeping register on issued licenses" Official Gazette of RS", No. 69/05	MESP	Emissions in all environmental media	The Regulations closely define contents and method of keeping register on issued licenses.
Regulations on contents, look and way of filling in	MESP	Emissions in all environmental media	The Regulations closely define contents, look and way of filling in applications for issuing of integrated license as well

applications for issuing of integrated license "Official Gazette of RS", No 30/2006			as other issues important for the application submission.
Legal Instruments	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Law on Strategic Environmental Impact Assessment "Official Gazette of RS", No. 135/04	MESP	Emissions in all environmental media	The Law regulates conditions, manners and procedures concerning impact assessment of certain plans and programs to the environment (hereinafter: strategic assessment) aimed at ensuring the environmental protection and sustainable development improvement through integration of main environmental protection principles in the process of preparation and adoption of plans and programs.
Legal Instruments	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Law on Environmental Impact Assessment "Official Gazette of RS", No. 135/04	MESP	Emissions in all environmental media	The Law regulates procedures for the impact assessment for projects that could have a significant impact to the environment, contents of the environmental impact assessment, participation of interested bodies, institutions and public, cross-border provision of information for projects that can have significant impact to the environment of other countries, supervision and other issues important for the environmental impact assessment. Provisions of the Law are not applied to projects regarding country defense.
By-laws for the Law Enforcement	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Decree on setting a List of Projects for which the environmental impact assessment is required and List of projects for which the environmental impact assessment can be required "Official Gazette of RS", No. 84/05	MESP	Emissions in all environmental media	This Decree regulates a List I of Projects for which the environmental impact assessment is required and List II of projects for which the environmental impact assessment can be required, published together with the Decree and they are its integral part.
Regulations on contents of application for environmental impact assessment and application contents for defining scope and contents of the environmental impact assessment "Official Gazette of RS", No. 69/05	MESP	Emissions in all environmental media	The Regulations closely regulate contents of application for environmental impact assessment and application contents for defining scope and contents of the environmental impact assessment.
Regulations on contents, look and methods of keeping of records on implemented procedures and made Decisions on the Environmental impact assessment "Official Gazette of RS", No. 69/05	MESP	Emissions in all environmental media	The Regulations closely regulate contents, look and methods of keeping of records on implemented procedures and made Decisions on the Environmental impact assessment. Records as referred to in the Regulations are considered public.
Regulations on contents of the environmental impact assessment "Official Gazette of RS", No. 69/05	MESP	Emissions in all environmental media	The Regulations closely regulate contents of the environmental impact assessment studies.
Regulations on operations of the technical commission for evaluation of environmental impact assessments "Official Gazette of RS", No. 69/05	MESP	Emissions in all environmental media	The Regulations regulate operations and decision making of the technical commission for evaluation of environmental impact assessment studies. The competent body may form one or more technical commissions depending on the type of studies on impact assessment.
Regulations on procedures concerning the public display, presentation and public discussion on study on the environmental impact assessment "Official Gazette	MESP	Emissions in all environmental media	The Regulations closely regulate procedures concerning the public display, presentation and public discussion on study on the environmental impact assessment.

of RS", No. 69/05			

On the basis of the Law on the Environmental Protection ("Official Gazette of RS", No. 135/04), protection measures from dangerous substances define conditions for production, import and export, trading in ozone depleting substances, handling dangerous substances in terms of protection from chemical accidents and waste import, export and transit.

Handling dangerous substances in terms of protection from chemical accident and waste import, export and transit

The Regulations on methodology for assessment of risks from chemical accidents and environmental pollution, through preparatory measures and measures regarding removal of consequences ("Official Gazette of RS", No. 60/94 and 63/94) govern also chemical accidents preventive measures. The Ministry of Environment and Spatial Planning is currently drafting a new regulations regulating handling dangerous substances in terms of chemical accidents in accordance with provisions in the Law on the Environmental Protection ("Official Gazette of RS", No. 135/04) and it will be harmonized with EU regulations and international agreements. Therefore, the following text refers to the law currently in force.

Legal Instruments	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Regulations on methodology for assessment of risks of chemical accidents and environmental pollution through preparedness and measures regarding elimination of consequences "Official Gazette of RS", No. 60/94 and 63/94	MESP	Dangerous substances	The Regulations regulate methodology for risk assessment i.e. risks of chemical accident and environmental pollution, preparedness for a possible chemical accident and measures aimed to eliminate consequences of a chemical accident as well as method of keeping records on types and quantities of production, use, trade, transport, storage and disposal of dangerous substances.

Brief description of regulations including also areas not covered by the regulations

The Regulations regulate methodology for risk assessment i.e. risks of chemical accident and environmental pollution, properness for a possible chemical accident and measures aimed at elimination of consequences of a chemical accident as well as method of keeping records on types and quantities of production, use, trade, transport, storage and disposal of dangerous substances. The Regulations do not apply to operation and use of facilities and procedures for nuclear and radioactive substances, handling scrap that has properties of dangerous substances and military and war operations.

Competent government body

The Ministry of Environment and Spatial Planning, Secretariat for the Environmental Protection of the Autonomous Region of Vojvodina and local self-governments are responsible for all procedures prescribed by the Law and implement them at the republic level.

List of chemicals covered and/or criteria applied for selection of chemicals covered

Dangerous substances as referred to in the Regulations are substances with very toxic, toxic-oxidizing, explosive, flammable, ecotoxic, self-reactive and other properties presenting risks to the human life and the environment. A List of dangerous chemicals with quantities for which it is estimated that can cause a chemical accident is printed along with the Regulations.

Monitoring Enforcement Mechanisms (inspections, reporting requirements)

The Environmental Protection Inspection carries out inspection at republic, provincial and local level.

Data basis as outputs of this regulation

As referred to in Articles 7 and 8 companies are obliged to keep records on dangerous substances and submit data by January 31, of the current year for the previous year.

According to this Article, an electronic database is formed and it is kept at the Department for Accident Management within the Ministry of Environment and Spatial Planning. However, also the Environmental Protection Inspection unified 2005 data submitted in conformity with the Regulations into the Report on types and quantities of dangerous substances including dangerous waste.

Ozone Depleting Substances

Brief description of regulations including also areas not covered by the regulations

Based on Article 56 of the Law on the Environmental Protection ("Official Gazette of RS", No. 135/04") aimed at implementation of the Wien Convention on the ozone layer protection and the Montreal Protocol on substances that deplete the ozone layer and Decision on determining goods whose export, import, trading are subject to special conditions the licenses for export/import of substances depleting the ozone layer are issued as well as. an opinion on import/export of substances that represent alternatives for the substances

depleting the ozone layer but contribute to the global warming.

On the basis of the Law on the Environmental Protection ("Official Gazette of RS", No. 135/04"), it is needed that the Minister issues regulations defining documentation that should be submitted along with the application for export/import license issuing, methods for records keeping, i.e. records on import, export and use of substances, products ways and timeframe for data submission. The Regulations have not been adopted yet, but necessary documentation is set in the Ministry of Environment and Spatial Planning necessary to be submitted for the purpose of obtaining license for foreign trade in these substances and these data can be downloaded from the web-site of the Ministry of Environment and Spatial Planning.

However, considering the fact that the Law on the Environmental Protection ("Official Gazette of RS", No. 135/04") has not fully defined provisions concerning the management of ozone depleting substances, the Draft Air Law, that is currently in the Assembly adoption procedure, prescribes that the Serbian Government passes the Decree regulating management of these substances. The Decree should regulate methods for gradual reduction of use of the ozone depleting substances, handling those substances, as well as products containing those substances or are use in production, handling those substances after termination of use of the product containing the substance, methods of collection, processing, warehousing and permanent disposal of those substances as well as labeling of products containing the substances. This draft law regulates conditions to be met by legal entities and physical persons to perform activities concerning maintenance and/or repair or use withdrawal of products containing ozone-depleting substances.

Competent government body

Ministry of Environment and Spatial Planning

List of chemicals covered and/or criteria applied for selection of chemicals covered

In conformity with the Law on the Environmental Protection ("Official Gazette of RS", No. 135/04"), the Government of the Republic of Serbia should pass the Decree defining a list of substances damaging the ozone layer whose import / export is prohibited; list of substances and products containing these substances damaging the ozone layer, whose import / export is allowed; list of substances and products containing those substances damaging the ozone layer for special purposes. This Decree has not been adopted yet, but the lists of substances subject to issuing of licenses is inherent in the Law on Ratification of the Montreal Protocol on Substances That Deplete the Ozone Layer ("Official Gazette of SFRY - International Agreements", No. 16/90 and Amendments to the Protocol ("Official Gazette of Serbia and Montenegro - International Agreements", No.2/04) which Serbia ratified in March 2005.

Monitoring enforcement mechanisms (inspections, reporting requirements)

Supervision over import/export of these substances at border crossings is under the jurisdiction of the Custom Administration from the first half of 2008.

Data basis as outputs of this regulation

In conformity with the Law on the Environmental Protection ("Official Gazette of RS", No. 135/04"), the ministry competent for the environmental protection keeps the records on import, export and use of ozone layer depleting substances/products. The electronic database is kept at the Ministry of Environment and Spatial Planning. Based on these data, data on import, export and use of these substances are submitted to the Ozone Secretarial within United Nations Environment Pregramme.

Waste Management

Draft Law on Waste management

The issue of waste management is regulated by number of regulations (over 30), out of which few adopted by FRY, and majority by the Republic of Serbia. Waste management is partially regulated by the current regulations (depending on the waste type and properties), environmental protection measure from waste negative impact is prescribed and jurisdictions divided between republic and local self-government bodies. These regulations are mostly not harmonized with the EU legislation, and there are numerous by-law regulations that are missing in order for the area of waste management to be comprehensively regulated.

The Law on Environmental Protection ("Official Gazette of RS", No. 135/04") defines issues of waste management and refers to regulating of this area by a separate Law on Waste Management. With adoption of the afore-said law, the Law on the Environmental Protection ("Official Gazette of RS", No. 66/91, 83/92, 53/93-second version, 67/93-second version, 48/94-second version, 53/95) regulating protection from waste and dangerous substances as well as from waste that presents risk to the human life and health or the environment if having properties of dangerous and hazardous substances ceases to be in force.

Based on the Law on the Environmental Protection of 1991, the **Regulations on handling wastes having properties of dangerous substances** ("Official Gazette of RS" No. 12/95) regulating handling wastes having properties of dangerous substances, keeping of records on types and quantities of dangerous substances in production, use and transport, transit, storage and disposal and the regulations classify the waste in accordance with the Basel Convention. Other by-law regulations define criteria for location of waste dump and setting of waste dumps, handling scrap with properties of dangerous substances, emission marginal values, etc.

The main law in this respect is the **Law on Handling Dangerous Substances** ("Official Gazette of RS", No. 25/96, 26/96 and 101/05, second version). This Law regulates the issue of handling waste substances used as secondary raw materials, waste collection, processing and storing conditions, as well as handling waste substances that have no value and cannot be used as secondary raw materials. One of the most important pertinent secondary regulation is the Regulations on conditions and methods of classification, packing and storing of secondary raw materials ("Official Gazette of RS", No. 55/01) regulating closely classification, packing and

storing of waste - secondary raw materials that can be used directly or though finishing or processing process and originate from technological manufacturing processes, recycling, processing and regeneration of waste substances, services, consumption or other activities. The Regulations contain a list of waste and a catalog of waste harmonized with the EU legislation.

Law on Municipal Activities ("Official Gazette of RS", No. 16/97 and 42/98) regulates public utility services and defines jurisdictions of municipalities and cities to closely regulate issues of collection and disposal of city dumps as well as performance of public services.

Such a system, regulated by numerous regulations, does not provide integral and efficient waste management and respecting of EU accepted principles. Therefore, the Ministry of Environment and Spatial Planning has prepared a law on waste management that is currently in the assembly procedure.

Reasons for adoption of this law are as follows: setting of an integrated waste management system, from waste generation, collection, transport, treatment to its final disposal. Defining of modern principles, types and classification of waste, waste management planning, jurisdiction of waste management, waste management institutions, management of special waste flows, waste management licenses, waste transbordary movement, reporting and database and waste management finance, make this Law the framework legislation for waste management.

The Law has an objective to ensure conditions required for reducing generation of waste, especially through development of clean technologies and through an efficient use of natural resources, waste reuse and recycling, separation of secondary raw materials from waste, use of waste as a form of energy, as well as sound waste disposal.

Waste Management Regulations in force

Legal Instruments	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Law on Handling Waste Substances "Official Gazette of RS", No. 25/96, 26/96	MESP	Waste substances, as referred to in the Law, are substances generated in production, service or other activities, goods not used any more, and waste substances generated from consumption and can be directly or through proper processing, used as raw material in production or as semi-finished goods. Scraps, as referred to in the Law, are also substances with no value in use.	The Law defines handling with waste substances, which can be used as secondary raw materials, collection, conditions in terms of processing and storing and handling waste substances with no value in use and cannot be used as secondary raw materials. The Law regulates environmental protection measures from waste substances negative impact and organization of activities concerning the protection.
By-laws for the Law Enforcement	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Regulations on documentation to be submitted with application for waste export/import and transit licensing "Official Gazette of FRY", No. 69/99	MESP	Dangerous waste is any dangerous substance with at least one of dangerous properties (explosivity, flammability, self-reactive substances, oxidation, organic peroxide, acute toxicity, infectiousness, corosivity, in contact with water releasing of flammable gases, in contact with air or water toxic gases, contain toxic substances with deferred chronic effects and eco-toxic properties), as well as packing that is or was used for dangerous waste, waste stated in	The Regulations prescribe documentation to be submitted with application for waste export/import and transit licensing.

		the List 1 and List 2, that are published with the Regulations, if having dangerous properties.	
Regulations on criteria for locations and setting waste dump "Official Gazette of RS", No. 54/92	MESP	Waste dump, as referred to in this Regulations, sanitary and technically organized location for disposal of solid waste generated as waste substances at public areas, in households, in manufacturing or working processes, in trade or use and that do not have properties of dangerous substances and cannot be processed or rationally used as industrial material or fuel.	This Regulations regulate criteria for locations and setting waste dump aimed at the environmental protection
Regulations on conditions and terms concerning classification, packing and storing of secondary raw materials "Official Gazette of RS", No. 55/01	MESP	Waste	The Regulations closely prescribe conditions and terms concerning classification, packing and storing of waste - secondary raw materials - that can be used directly or through processing and originate from technological manufacturing processes, recycling, refining or regeneration of waste substances, services, use or other activities.
Regulations on handling scraps having properties of dangerous substances "Official Gazette of RS", No. 12/95	MESP	Dangerous scraps, as referred to in the Regulations, are all liquid or solid scraps generated in production processes and containing substances i.e. chemical elements and their compounds whose properties or chemical reactions represent risks to the environment, human life and health and are listed in the List of dangerous substances attached to the regulations as the integral part	The Regulations define handling scraps having properties of dangerous substances (hereinafter: dangerous scrap), record keeping concerning types and quantities of dangerous substances in production, use, transport, trade, storage and disposal.
Air Protection			
Draft Air Protection Law			

The integral environmental protection framework is regulated by the Law on Environmental Protection ("Official Gazette of RS", No. 135/04") that together with the Law on Strategic Environmental Impact Assessment ("Official Gazette of RS", No. 135/04), Law on Environmental Impact Assessment ("Official Gazette of RS", No. 135/04) and Law on Integrated Pollution Prevention and Control ("Official Gazette of RS", No. 135/04) represent a set of regulations concerning the environmental protection. These Laws, and particularly the Law on Environmental Protection (Official Gazette of RS", No. 135/04"), regulate the issue of air protection only generally within integrated environmental protection and it is left to regulate this area by a special law, and by the provisions of the Law on Environmental Protection („Official Gazette of RS", No. 66/91, 83/92, 53/93 – second version, 67/93 – second version, 48/94 - second version, 53/95) regulating the air protection and which are still in force.

Main reasons for adoption of the Air Protection Law is to regulate this area in conformity with principles set and contained in the set of environmental protection laws, particularly with the Law on Environmental Protection ("Official Gazette of RS", No. 135/04") as well as harmonization with the international regulations. Besides, the current practice has been imposing certain amendments to the laws and indicating direction and scope of these amendments aimed at an efficient and comprehensive air protection.

The objective of the Air Protection Law is to: set, maintain and improve a unified air quality management system in Serbia, define and implement measures concerning protection and improvement of air quality in order to avoid, prevent or reduce negative effects to the

human health and the environment, maintain air quality, if the air is clean or its improvement, in case it is polluted; prevent and reduce pollution having negative impact to the ozone layer and climatic changes; evaluation and collection of data on air quality on the basis of standardized methods and measurements and ensure availability of data to the public; ensure enforcement of commitment inherent in international contracts and agreements and participate in international cooperation concerning environmental protection and air quality improvement.
The draft air protection law is currently in the assembly procedure. However, there are two regulations currently in force concerning air protection and adopted on the basis of the earlier Law on Environmental Protection ("Official Gazette of RS", No. 66/91, 83/92, 53/93-second version, 67/93-second version, 48/94-second version, 53/95).

Air Protection Regulations in Force

Legal Instruments	Responsible Governmental Body	Chemicals Covered	Objective of Legislation
Regulations on marginal values, methods of measurement of imission, criteria for setting gauging points and records keeping "Official Gazette RS", No. 54/92, 30/99	MESP	As referred to in the Law, systematic measurement is performed for the following polluting substances: 1) inorganic substances: 1.1. sulphurdioxide 1.2. smog 1.3. suspended particles 1.4. nitrogen dioxide 1.5. ground-level ozone 1.6. carbon monoxide 1.7. hydrochloride 1.8. fluorine 1.9. fluorine hydride, 1.10. ammonia, 1.11. hydrogen sulphide 2) aerosediments: 3) heavy metal in suspended particles: 3.1. cadmium 3.2. manganese 3.3. lead 3.4. mercury 4) organic substances: 4.1. carbonic disulphide 4.2. stiren 4.3. tetrachloroethylene 4.4. toluen 4.5. formaldehyde 4.6. 1, 2 dihloretan 4.7. acrolein 5) cancerogenic substances: 5.1. acrylonitrile 5.2. arsenic 5.3. benzene 5.4. chrome (six-valen) 5.5. nickel 5.6. polyciclic aromatic hydrocarbons 5.7. vinyl chloride 5.8. asbestos 5.9. ethylene dichloride 5.10. dioxine (2,3,7,8 tetrachlorine-dibenzodioxin)	The Regulations define marginal values of imission, warning imission, episodic air pollution, methods of systematic measurement of imission, criteria for setting gauging points and records keeping..
Regulation on marginal values of emission, methods and timeframe for	MESP	Hazardous and dangerous substances, as referred to in the	The Regulations define marginal values of emission of hazardous and dangerous substances in the air at the pollution source, methods and timeframe for measurement and records

measurement and records keeping "Official Gazette of RS", No. 30/97, 35/97		Regulations, are the following: 1) androgenic substances 2) total powder substances 3) powder inorganic substances 4) inorganic compounds as aerosol, steam or gas and 5) organic compounds.	keeping on performed measurements.
Regulation on detailed conditions to be met by professional organizations measuring emission and imission "Official Gazette of RS", No. 5/02	MESP	Emission and imission in the air	The Regulations closely define conditions to be met by professional organizations in terms of staff, equipment and premises to perform measuring of emission and imission.
Decree on setting Program on the Air Quality Control in 2006 and 2007 "Official Gazette of RS", No. 48/04	MESP	Imission in the air	This Decree regulates air quality control covering imission systematic measurements, monitoring of the air pollution impact to human health, the environment and climate and reporting on results of measurements and monitoring of the air pollution impact to human health, the environment and climate.
Water Protection Regulations in force			
Legal Instruments	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Water Law "Official Gazette of RS", No. 46/91, 53/93, 67/93, 48/94, 54/96	MAFWM	Emission in water	The Law regulates the water protection, protection from adverse water effects, water use and management as goods from general interests, terms and conditions for performing water management activities, organization and financing of water management activities, and supervision over enforcement of the Law. Provisions of the Law refer to all underground and surface waters, including drinking water, thermal water and mineral water. Provisions of the Law refer to border and transbordary waters and inter-republic waters within the Republic of Serbia, unless otherwise regulated by another Law. Water protection from pollution is performed aimed at ensuring safe and undisturbed use of water, protection of human, animal and plant health and the environment.
By-laws for the Law Enforcement	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Regulations on dangerous substances in water "Official Gazette of SRS", No. 31/82	MAFWM, MESP	Emissions in water Dangerous substances as referred to in the regulations are those that due to their composition, quantity, radioactive degree or other properties can endanger human, fish, and animal life and health.	The Regulations prescribes dangerous substances that can be released into water directly or indirectly. Maximum allowed quantities of dangerous substances in water.
Regulations on dangerous substances whose presence in water is prohibited "Official Gazette of SFRY", No. 3/66 and 7/66	MAFWM	Emissions in water	The Regulations prescribes dangerous substances whose presence in water is prohibited.
Legal Instruments	**Responsible Governmental Body**	**Chemicals Covered**	**Objective of Legislation**
Law on Consumer Protection "Official Gazette of RS", No. 79/05	MTS	Chemicals as products	The Law regulates main consumers' rights, way of rights exercising and standards implementation.

4.1.1 New laws and by-law regulations currently being prepared

	Legal Instrument	When completion of drafting / adoption is planned?	Responsible person/ Position/ Tel., E-mail, Fax
1	Law on Transportation of Dangerous Goods It is done in cooperation with experts from the Twinning Project	Second quarter 2008	Dejan Tomic, Safety Advisor 063/80 97 182 dtomic@mki.sr.gov.yu
2	Regulation on training of the Safety Advisor, authorizations, companies' responsibilities	Second quarter 2008	
3	Regulation on conditions to be met by persons training workers to handle dangerous goods	Second quarter 2008	
4	Regulation on conditions to be met by people handling dangerous substances and conditions for handling locations	Second quarter 2008	
5	Regulation on conditions to be met by persons in charge of cleaning and washing tanks, containers and small and large packaging after transportation of dangerous goods	Second quarter 2008	
6	Regulation on conditions to be met by persons producing and testing packaging	Second quarter 2008	
7	Regulation on conditions for licensing of experts testing containers transporting dangerous goods, seals and documentation	Second quarter 2008	
8	Law on Plant Protection Products	Fourth quarter 2008/first quarter 2010	Snezana Savcic - Petric, Chief of Department for Plant Protection and Nutrition, 2600 081, 063 491 715, snezanasp@minpolj.sr.gov.yu
9	Law on Plant Nutrition Products	Second quarter 2009	
10	Law on Chemicals	End of 2008	Valentina Radjenovic, chief of Department for Chemicals 215 87 59 valentina.radjenovic@ekoserb.sr.gov.yu Jelena Cvetkovic, assistant Minister for European Integration 3131355 jelena.cvetkovic@ekoserb.sr.gov.yu
11	Law on Biocides	End of 2008	Valentina Radjenovic, chief of Department for Chemicals 215 87 59 valentina.radjenovic@ekoserb.sr.gov.yu Jelena Cvetkovic, assistant Minister for European Integration 3131355 jelena.cvetkovic@ekoserb.sr.gov.yu
12	Regulation on preventive measures for safe and health work when exposing to chemical agents	End of 2009	Mira Bozic, lawyer, Chief of Group for studying and analysis affairs mira.bozic@minrzs.sr.gov.yu

13	Regulation on preventive measures for safe and health work when exposing to asbestos	End of 2009	Mira Bozic, lawyer,,Chief of Group for studying and analysis affairs mira.bozic@minrzs.sr.gov.yu
14	Regulation on preventive measures for safe and health work when exposing to carcinogenic and mutagenic	End of 2011	Mira Bozic, lawyer, Chief of Group for studying and analysis affairs mira.bozic@minrzs.sr.gov.yu

ABBREVIATIONS:

MAFWM - Ministry of Agriculture, Forestry and Water Management
MH - Ministry of Health
MESP - Ministry of Environment and Spatial Planning
MI - Ministry of infrastructure
MIA - Ministry of Interior Affairs
MLSP - Ministry of Labor and Social Policy
MTS - Ministry of Trade and Services
DOSH - Directorate for Occupational Safety and Health
DPP - Directorate for Plant Protection
CA - Custom Administration

Usually it is the case that laws regulating certain area envisage economic offences and violations and set fines or protective measures (suspension of operations, closing down and introduction of proper technical solutions). The penal law envisages penal sanctions and penalties and/or protection measures and rarely fines.

Adopted regulations in the Republic of Serbia are published in the Official Gazette of the Republic of Serbia. Regulations adopted from the period of SFRY, FRY, Serbia and Montenegro, were published in the Official Gazette of SFRY, FRY and Serbia and Montenegro. **The Law on technical requirements for products and assessment of harmonization of products with prescribed requirements** («Official Gazette of Serbia and Montenegro», No. 44/05) regulates technical requirements for products and assessment of harmonization of products with prescribed requirements and adoption of technical regulations. Technical regulations prescribe technical requirements to be met by some products or group of products in order to place them on the market or in use. The Law prescribes that the Register of technical regulations is kept by the Ministry of Serbia and Montenegro in charge of domestic economic relations. However, since this Ministry is abolished upon brake down of the State Union of Serbia and Montenegro, there is an issue of who will keep the register. **The Law on Standardization** («Official Gazette of Serbia and Montenegro», No. 44/05) defines principles and objectives of the standardization as well as procedures for adoption of standards. This Law establishes the Standardization Institute that should replace earlier Standardization Authority. The standards are published as publications and texts containing standards are available upon payment at the Standardization Institute.

4.2 Overview of National Strategies, Programs or Plans Concerning Chemical Management

Serbian National Strategy for the Accession of Serbia and Montenegro to the EU has both the status and significance of strategic state document. It defines the long-term government policy in relation to the European Union. The general aim of such policy and ultimate goal of strategy in cooperation with the European Union is the accession of Serbia to the European Union. This paper represents national strategy for association with and accession to the EU. Therefore, the strategy is aimed at translating the general determination of our public and political actors in favor of European

integrations into concrete expectations of all social levels and realistic tasks for all political players and institutions.

The aims of Strategy creation are as follows:

- To establish the requirements for fulfillment of accession terms, on basis of Copenhagen criteria, criteria defined by Stabilization and **Association Process** and other conditions for membership established by the EU.
- To provide all political decision-makers, economic policy creators and legislative authority with necessary elements for adoption of regulations and measures whose implementation may contribute to realization of goals acceptable from the EU perspective for signing of Stabilization and Association Agreement and subsequently for accession of Serbia into the European Union.
- From the aspect of internal requirements, the measures and activities proposed within this Strategy should enable the implementation of internal reforms in the area of functioning of political institutions, implementation of economic reforms and the reform of Serbian legal system, which would be fully harmonized with the European Union law.
- To provide basic goals, guidance and instruments of economic development of Serbia in future conditions that accompany the Stabilization and Association Agreement i.e. gradual market liberalization.

The Strategy states that by various activities in their respective fields, state institutions should primarily contribute to and establish cooperation in the area of the environmental protection. Moreover, the Strategy recognizes that Serbia has to build its development on basis of sustainable development principles – economic development that is harmonized and in concord with the environmental policy, social and other policies, and in compliance with the main directions of the Strategy for Poverty Reduction (2003).

A section dedicated to the environment is an integral part of the Strategy for Poverty Reduction (2003). Environment, as one of the priorities, is included in the Reform Agenda II (2003), under the section on infrastructure, primarily regarding waste and hazardous waste, as well as waste waters and capacity building in the environmental institutions

The process of harmonization of Serbian legislation with the EU one has started. Since the beginning of reforms to date, work on harmonizing laws with the EU ones has been taking place.

With a view to harmonizing the chapter on environmental protection with the EU regulations, it is necessary to:

- Continue to build the environmental protection system, which regulates horizontal legislation according to the *acquis* and establishes legal frameworks by areas according to the *acquis* (by analyzing whether the passed laws can be implemented and by making improvements with the amendments to the laws);
- Adopt legislation by areas (e.g. chemicals management);
- Adopt the Chemicals Management Action Plan as inherent in the Law;
- Adopt by-laws from the set of new laws;
- Form expert commissions that will determine which EU directives require a transition period in order to create negotiating positions in the EU accession process; produce an Integral Strategy for Harmonization with the EU Regulations in the area of environment, which will review the deadlines and accept budgetary implications;
- Monitor the implementation of the National Program of Environmental Protection and Action Plan (NEAP) and the Strategy for Sustainable Development; together with the Council for Sustainable Development coordinate the implementation of the Integral Strategy;

- Periodically monitor and analyze the realization; produce the balance of what has been done and of legal solutions that in the meantime have been significantly amended in the EU (e.g. passing the REACH regulation for chemicals);
- Monitor existing regulations and updated and harmonize them with the EU regulations;
- Improve integration of environment in other sector policies; and
- As widely as possible, raise the level of environmental awareness in all structures of the society.

Other requirements in addition to the legal harmonization requirements are to:

- Strengthen administrative and human capacities for strategic planning in the area of environment, various types of licenses, inspection, monitoring of environmental elements, and project management;
- Establish institutions in such a way that they will efficiently monitor and implement activities relating to the EU approximation; provide technical conditions and office space:
- Fully develop cooperation with the European Environmental Agency (EEA); build environmental infrastructure;
- Establish or build up on the networks of monitoring of environmental and radiation elements, in line with the EU requirements;
- Technically update the border control of, among others, chemicals;
- Set up a cadastre of polluters, monitor the biggest polluters in particular; encourage the application of the environmental management system in enterprises, ISO 14000/EMS and EMAS, *environmental* labeling, primarily in cooperation with the Serbian Chamber of Commerce; establish a system of good laboratory practice in line with the EU Directives of 2004;
- Provide funding and investing in the environment sector (Fund, etc.), especially in the area of finding solutions for the problem of chemical and medical waste and waste management, wastewaters and reduction of pollution from thermal power plants, as well as maintaining biodiversity;
- build a system of 'green' public procurement (taking into consideration the system solutions for the environmental protection when implementing public procurement procedures) in order to effectively implement the preventives and principles of sustainable consumption.

Government of the Republic of Serbia adopted the National Strategy for Sustainable Development on its session in May 2008. National Strategy for Sustainable Development envisages the sustainable development as objective-oriented, long-lasting (continuous), comprehensive and synergistic process that affects all aspects of life (economic, social, ecological and institutional). Long-lasting concept of sustainable development envisages continuous economic development, which provides not only economical efficiency and technological progress, cleaner technologies involvement, society innovations and corporate social responsibility but also poverty reduction, sustainable use of resources, life quality improvement as well as pollution reduction and prevention. One of the most important goals of sustainable development is opening of new workplaces and reduction of unemployment as well as reduction of gender and social inequality of marginalized groups, stimulating employment of young people and people with disability as well as other critical groups.

One of the characteristics of sustainable development is more involvement of public in decision making regarding the environmental issues.

In chapter "Environment and recourses", in the part that refers to chemicals, it is stated that chemicals legislation in the Republic of Serbia is not harmonized with EU legislation and does not comprise all areas prescribed in EU legislations. Following problems were identified: lack of data base and systematic monitoring of chemicals i.e. effects that certain chemicals could cause to human health and environment; insufficiently technically equipped laboratories for qualitative and quantitative testing of chemicals; lack of system for monitoring of laboratories' work compliance

with principles of Good Laboratory Practice; bad condition of chemicals industry infrastructure; lack of finances for investment in cleaner production; insufficient intersectoral coordination between authorities in charge for different phases in chemicals life cycle; inappropriate storage of chemicals.

Sectoral goals defined in the Strategy are as follows:

- Harmonization of national legislation regarding the chemicals management with EU legislations and development of administrative and other capacities for their implementation;
- Reduction of chemicals risk to human health and environment as well as replacement of dangerous chemicals with less dangerous chemicals especially persistent, bioaccumulative and toxic (PBT) chemicals;
- Development of information system for chemicals management;
- Implementation of educational activities as well as public awareness rising activities regarding chemicals risk to human health and environment;
- Implementation of support measures for introducing good agricultural practices.

In order to efficiently implement new legislations on chemicals, it is necessary to strengthen administrative and professional capacities of employees. It is necessary to develop program for chemicals monitoring with measures for risk reduction, to establish system for authorization (issuing of permits for use) of certain dangerous chemicals in order to replace those chemicals with less dangerous ones as well as to develop socio-economic studies which include assessment of cost for replacement of dangerous chemicals with less dangerous ones. In order to establish and develop information system for chemicals management it is necessary to establish and update databases on chemicals on the market, on their properties as well as on their effects to human health and environment. In addition, it is necessary to strengthen capacities of nongovernmental organizations including the association for consumer's protection in order to inform citizens on risks that could be caused by chemicals.

In the Strategy, in the part that refers to accidents, it is recognized that Republic of Serbia has inherited many chemicals plants in very bad condition, uncontrolled urbanization, inadequate implementation of precaution and response measures at all levels. For these reasons, Republic of Serbia is confronted with increased safety risk to human health and environment.

Sectoral goals defined in the Strategy are as follows:

- Harmonization of national with international legislations in this area;
- Implementation of precaution and response measures at all levels, from plants level to Republic level;
- Development of information and management system on territory of the Republic of Serbia in case of chemicals accident as part of national integrated system for protection and rescue in cases of natural disasters and other larger accidents;
- Institutional, organizational and personnel strengthen of authorities, organizations and institutions regarding enforcement of legislation in this area;
- Preparation and enforcement of certain activities in order to integrate national system into regional and international response system in case of accident with transboundary effects.

Regulatory measures refer to ratification of international conventions and adopting of new legislation harmonized with EU legislation. Institutional measures comprise establishment of unique system for chemicals accident management through inter-sectoral approach, strengthen of existing institutions, which are involved in prevention, response and sanitation of accident consequences. Economical and financial measures refer to enforcing of principle "polluter pays", providing budget resources for equipping and strengthening authorities in charge for chemicals accident response as well as for sanitation of accident consequences.

Draft National Environmental Protection Program (2007-2016) is currently in the Assembly adoption procedure. The Program covers as follows:

- description and assessment of environment;
- main objectives and criteria for a comprehensive environmental protection, priority protection measures, broken down by areas and geographic regions;
- conditions concerning application of the most favorable economic, technical, business and other measures aimed at sustainable development and environmental protection management;
- long-term and short-term measures aimed at pollution prevention, mitigation and control;
- implementation actors, methods and timeframe
- implementation resources.

The Program will be implemented through action and remedial plans adopted by the Government for the five-year period. Once every two years, the Government submits to the National Assembly a report on the Program implementation. The ministry in charge of environmental protection in cooperation with the ministry in charge of particular areas prepares individual action plans. The Program is prepared with an objective to develop modern environmental protection policies in Serbia during the following decade. The Program is designed to enable increase in environment quality and improve living quality of citizens of the Republic of Serbia. The Program is used for implementation of the association process of the Republic of Serbia to the European Union.

In the section of the Program that concerns chemicals management it is stated that chemicals are used in numerous industries (chemical, pharmaceutical and food industry, wood-processing industry, metallurgical, leather industry, etc.) and needed in manufacturing of fuel, plastic, paint and lacquers, rubber, insulating materials plant protecting and washing agents, fertilizers, etc. Moreover, it is said that there are no comprehensive data on chemicals management activities. Usage and consumption patterns are collected from interviews and questionnaires and do not provide and overall picture of activities.

The initial register of dangerous substances was prepared in 2000. A National Informational System (including data basis on chemicals on the market and their properties) do not exist linking all bodies involved in various segments of the chemicals management. The legal framework regulating the chemicals is narrower compared to the EU and focused on poisons. The current procedures of toxicological assessment of chemicals cannot be compared with the risk assessment because covering only hazardous assessment. Criteria concerning classification, labeling and packing of chemicals are comparable with EU laws, but still not defined in details. The prior informed consent procedure of chemicals that have impact to human health and the environment (PIC procedure) is defined by the Rotterdam Convention that has not been ratified. Besides, the Stockholm Convention on persistent organic pollutants (POPs) has not been ratified either. The National Implementation Plan for this Convention has not been prepared, which should cover firstly, development of a preliminary inventory of twelve chemicals on the list of that Convention and other chemicals on the POPs protocol list of the Convention on Long Range Transboundary Air Pollution (UNECE Convention), and then the National Program for emission reduction of certain POPs chemicals as well as their withdrawal and disposal. There is lack of inter-sectoral cooperation among ministries in charge of: occupational health and safety, plant protection, health, transport, etc. aimed at control of the overall life-cycle of chemicals from their placing on the market to disposal.

The Program defines the following problem causes:

- non-harmonized regulations concerning chemicals with EU regulations;
- lack of regulations on prohibition of intentional discharge of ozone depleting substances;
- non-ratified conventions concerning chemicals management;
- lack of professional and institutional capacities for chemicals management;
- lack of database and systematic monitoring of chemicals in trade in Serbia as well as of informational system.

The Program states that irregular chemicals management influences the environment causing pollution of soil and water by disposal of unused chemicals, etc.; air, water and soil pollution through uncontrolled and inadequate use of dangerous chemicals.

In the section dealing with chemical accidents, it is stated that accidents with dangerous substances in production, use, storing, transport and disposal represent a source of the environment pollution and risk to human health with a possible consequence of discharge of dangerous substances such as fuel, lubricants, cleaning agents, dilutant, PCB, etc. Annually there are up to ten such accidents on average. It is to conclude that chemical and petrochemical plants cause the biggest risks of accidents.
According to the Program, causes of the problems are as follows:

- lack of enforcement of the laws and regulations concerning accident risk management;
- lack of risk management plans;
- insufficient coordination among stakeholders in the risk management system (industry, competent bodies and institutions, etc.);
- irregular storage of chemicals and dangerous waste;
- obsolete industrial technologies;
- insufficient training and technological discipline;
- weak organization and implementation of preventive measures, as well as negligence and irregular handling with chemicals and dangerous waste;
- poor state of transport infrastructure and resources.

Impact to the environment is shown as contamination of soil and water by discharge of hydrocarbon, dilutant, PCB and other chemicals as well as polluted air caused by discharge of toxic agents.

The Program objectives regarding chemicals management and protection from accidents are as follows**:**
Short-term objectives 2006-2010

- Harmonization of national legislation concerning chemicals management and protection from accidents with the EU regulations;
- Review of national regulations on accidents in industry and transport;
- Ratification of important international conventions concerning chemicals and accidents;
- Setting and development of an informational system for chemicals management and protection from accidents.

Permanent objectives 2006-2015

- Building of professional and institutional capacities concerning chemicals management;
- Setting and development of a risk management and chemical accident response system in industry and transport.

In the section concerning proposed reforms of the monitoring and informational system concerning chemicals management, the following is listed:

- Establishment of register of chemicals;
- Establishment of the informational system concerning chemicals management;
- Establishment of systematic monitoring of trade and use of chemicals as well as their metabolites and path of chemicals into the environment aimed at implementation of measures to reduce risks;

The Program states that the public sector investment needed for creation and operations of the chemical management system amounts to 4 million EUR annually, and 4,5 million EUR annually would be needed from the private sector.

In its intention to improve the current food safety system and therefore cause reduction of diseases caused or transmitted by food, the Ministry of Health and Ministry of Agriculture, Forestry and Water Management formed an Inter-ministerial working group to draft **Food Safety Strategy**. The Draft food safety strategy is prepared and indicating that protection, preservation and improvement of human health is one of the key commitments of the Government of the Republic of Serbia.

Adoption of the Food Safety Strategy and the **Law on Food Safety** represents on of the key priorities in the process of realization of priorities from the European partnership at association of the Republic of Serbia to the European Union. The Strategy states that aimed at ensuring human health, the food should be not only of certain nutritive value, but also safe from biological, chemical and radiological aspect i.e. it shall not contain hazardous substances in quantities dangerous to the health, caused by environmental pollution, agrotechnical and vet measures in primary agricultural production and/or cattle breathing and non-hygienic preparation, production and processing of food (improper use of additives as well as substances generated in process of production that may present risks to the human health). One of the main conclusions of the Strategy is that in efforts to improve the current food safety system and therefore reduce diseases caused or transferred by food, competent bodies of the Republic of Serbia should adopt and implement regulations and other measures. Improvement of the current system will ensure division of responsibilities of all stakeholders in the food safety chain (producers, processors, distributors, consumers and bodies in charge of inspection), respecting the sustainable development policy.

The key changes introduced by the Strategy are as follows:

- development of a strategy for functioning of the institutional framework;
- harmonization of regulations based on scientific grounds and internationally-recognized standards and recommendations;
- provision of conditions for implementation of the food safety system;
- building of a monitoring and progress evaluation system.

The Strategy assesses that insufficient number of samples of food products is controlled in terms of certain physical and chemical indicators. The test on pesticide residue covers on average only 4% of samples, micotoxin 2%, lead content 10%, cadmium 9%, mercury 6%, arsenic 18% of samples. Physical and chemical testing is usually used to control organoleptic properties (70%) and quality control (57% of samples).

Moreover, the document states that in the food production process, plants are exposed to both dangerous substances and other factors (loss of nutritional values, exposure to chemical substances, unfavorable cultivation conditions). Therefore, plant protection should be continuous action in order to avoid yield reduction and loss in production, ensure certain raw material for production of safe food and ensure sound and safe food storage. Besides the protection, it is very important to achieve the lowest possible level of nitrate in plants and plant products caused by fertilizers as well as the lowest possible level of heavy metals. Although the modern plant protection is based on integral plant protection principles, application of plant protecting agents is surely one of the most significant protection methods of plants and food products from damaging substances.

The Strategy presents that firstly it should be ensured that only plant protecting agents approved by a competent body are on the market and in use i.e. those that are suitable, registered for certain (specific) purpose. Plant protecting agents are registered, placed on the market and applied adequately labeled with instructions for use, in conformity with the good agricultural practice concerning plant protection, ensuring that after harvesting/gathering and storing agricultural products do not contain pesticide residues above the maximum permitted levels.

Taking into consideration that in the foreseeable future the agricultural production will relay on use of pesticides, it was necessary to initiate in Serbia organization and implementation of programs concerning testing and control of pesticide residues in/on plants used in human diet, which would

list us among countries that, among others, control also primary production and contribute to undisturbed trading of products.

The Strategy confirms that due to various circumstances, our country has started systematic and organized monitoring of pesticide residues with great delays, and some countries in the region have this system for more than three decades. Similar testing is implemented in the EU, but there, since 1996, besides the national programs, there is a coordinated program of monitoring of certain target substances.

The Document also confirms that food safety policy of any country has to be oriented towards the permanent monitoring and improvement of work through long-, medium- and short-term strategic plan with clearly defined objectives. Some of objectives can include, e.g. reduction of occurrence of some diseases caused by specific microorganisms in food, improvement in the area of food declaring and improvement of the food laws enforcement system efficiency. Besides the National Food Safety Strategy and long-term inspection planning, it is also important to mention plans in case of unforeseen developments.

The Strategy presents a necessity to adopt the Law on Food Safety setting objectives, principles, methods and measures to be applied in order to achieve high food safety standards aimed at consumers' protection and free flow of goods at national and international level.

In order to ensure that activities envisaged by the proposed Strategy, as a development of the national food safety program, are undertaken an integral part of this document is evaluation process management. One of the progress monitoring indicators mentioned in the document is share of food samples non-compliant with regulations on pesticide residues.

The Strategy concludes that it is necessary to monitor origin of most of contaminants including pesticides, residues of veterinary medicines and pathogen microorganisms and implement adequate measures starting from the primary production. There is a need to increase awareness at food producers in the primary production that they represent an important link in the food production chain and that are accountable for food safety.

On the basis of Article 63, Para 3 of the Law on Consumers Protection („Official Gazette of the Republic of Serbia“, No. 79/2005) the Government of the Republic of Serbia should develop a **National Consumers Protection Program for the period 2007-2012** at proposal of the Ministry of Trade and Services.

The National Program expresses the intention to translate a clear request for consumers protection, stemming from internal need of our society, and as shown by the EU member states it can be successfully realized through tested and well-known methods, into a clear policy - legal paper that will serve as inspiration and incentive to various governmental bodies, stakeholders as well as private-legal associations of citizens and organizations of consumers (as independent, non-profit, non-governmental and non-political association of citizens as consumers), to coordinate their efforts. Therefore, the Program consists of important elements relevant also to other development policy concepts: objectives, stakeholders, resources and timeframe. The Program's objective is to enable harmonization of various partial and unconnected efforts by the state, consumers organizations, foreign partners, chambers of commerce or companies in order to avoid to the greatest possible extent all traps faced by a poor, under-developed society with inefficient economy and high unemployment rate in the process of development of a comprehensive system that would meet requirements of our country but also of the EU. All the afore-said has resulted in low level of consumer protection caused by lack of regulations and, particularly by lack of coordination among stakeholders.

A part of the Program refers to bodies dealing with consumer protection clearly showing that there is a need to restructure market inspection services in jurisdiction of the government bodies as well

as regulations setting these jurisdictions. There is a need to extend a set of products subject to quality and safety testing considering the fact that properties of great number of products on the market have not been tested and there is no inspection responsibility for prevention. The core change of the labor inspection system is minimizing risks and subsequent reaction of inspection and other services.

The Program states that there are numerous products on the market subject to no market inspection due to the lack of or collision of norms or due to the lack of funds for testing. It is a paradox that inspection services participate insufficiently in international information exchange on dangerous or hazardous products or on companies implementing policy to the disadvantage of consumers. Therefore, one of the priorities inherent in the Program is development of the system concerning receiving comprehensive and detailed information on all products or services on the EU market, subject to particular attention of authorized bodies or other entities responsible for the consumer protection.

The part of the Program called «Relevant acquis EU» that should pointed out referential EU standards that Serbia should gradually adopt according to the agenda in line with the national priorities, provides also the Commission Directive 76/769/EEZ regarding prohibition and restrictions on placing on the market and using of certain chemicals. The new Law on chemicals and pertinent secondary regulations will gradually incorporate EU Directives into the country legislation.

Moreover, the Program states that we still do not have set IT system between the main stakeholders, there is a lack of an efficient and fast action by the government bodies in charge of enforcement of regulations concerning consumers protection and implementation of rules of consumers protection locally. We still do not have a rapid information system (RAPEX) that enables information exchange as a single rapid information system for dangerous products of mass consumption. Besides, we do not have an Inspection Council to coordinate different inspection services, Food Product Council (experts dealing with agriculture, veterinary medicine, consumers protection, health and environment), General Product Safety Commission in conformity with Directive 2001/95/EZ on general product safety (GPSD) to coordinate work of different ministries and inspection services, bodies for standardization and chamber of commerce.

Priorities in terms of consumer protection from the point of view of inspection services are setting of an IT system connecting main stakeholders. Therefore, it is important to stress that inspection services need human resources, better material, and technical conditions for their work.

A precondition for implementation of continuous inspection services in terms of consumers protection is setting of such an organization and operations to enable everyday inspections out of working hours, in evening, on Saturday, Sunday, holidays, because sale of goods and services is done all the time. This requires greater number of inspectors, continuous training and greater mobility as well as additional funds to pay for the overtime.

There is also a need for better IT equipment and connection, vertically from units to Market Inspection Sector and horizontally, with line ministries and consumers organizations. The network of inspection services should be established according to the matrix presented in the Final report on Evaluation of Harmonization of the Regulation Framework concerning consumers' protection of Serbia and Montenegro with EU rules and there is need for financial support from the budget and grants for this purpose.

Serbia is committed through the Program, to build the administrative infrastructure concerning the consumer protection to carry out active consumer protection policy in line with EU member state experiences.

The Program envisages capacity building, both in governmental and non-governmental sector as well as in mixed sector and building of network of stakeholders concerning the consumer protection in conformity with experiences of the countries in the region and EU countries. Recommendations of EU experts provided in the Final report are accepted concerning building of a special unit within the ministry in charge of consumer protection. The Consumer Protection Council has also been established and it could grow into the Consumer Protection Agency as referred to in the Law on Public Agencies ("Official Gazette of RS", No. 18/05) or into the National Consumer Protection Council...

The Program envisages that building of a consumer protection network will ensure personnel, material and technical preconditions for administrative strengthening of capacities and active working in the area of protection of consumers' rights and interests.

In the Environmental Protection part of the Program it is pointed out that the problems of environmental protection are more and more significant and that engagement of local communities, industries and citizens is needed.

Plan of Action for Children of the Government of the Republic of Serbia is a strategic document that defines the general policy of the Republic towards children through the year 2015.

By developing of the Plan, the Government of the Republic of Serbia fulfils the international obligations it accepted by ratifying the UN Convention on the Rights of the Child and the obligations inherent in other UN documents such as the Millennium Development Goals and World Fit for Children (adopted as the Special Session of the UN General Assembly dedicated to children). The Plan has been prepared to fully uphold the four founding principles that underpin all articles of the Convention: non-discrimination, best interest of the child, right to life, survival and development and children participation. Above all the Plan is a strategic document in which the Government of Serbia defines its short-, middle- and long-term policy towards children. This document identifies the basic problems associated with the implementation, protection and promotion of child rights in our country. The Plan will also represent a mechanism through which to monitor the state of child rights and child welfare during this period of economic, social and political transition in Serbia. Therefore, it is a plan of priority measures activities and programs that should be undertaken in the years to come in order to create as favorable as possible conditions for children's development and social integration. The Plan should ensure unity and coherency in Serbian's policy toward children, that is, harmonization of actions and measures across various fields and public services concerned with children.

One of the specific objectives is design of a safe, supportive and non-violent environment for growing children. One of the proposed activities to accomplish this objective is to reduce respiratory diseases among children by decreasing pollution caused by cars, regulating car maintenance and introducing standards for vehicle exhaust fumes to protect children from toxic materials.

Ministry of Labour and Social Policy prepared Draft National Profile on Occupational Safety and Health, adopted on International Labour Organization session (2007). Also, Occupational health and Safety Council (2006) adopted National Policy on Occupational Safety and Health which will contribute to national development of occupational safety and health system, improve education and develop working culture in occupational safety and health field in order to decrease injures at work, occupational and related diseases. Directorate for Occupational Safety and Health within the Ministry prepared **Occupational Safety and Health Strategy in the Republic of Serbia for the period 2008 – 2012.** The strategy defines basic objectives for development of occupational safety and health system in the Republic of Serbia.

Overall objective of the Strategy is improvement and protection of health of employed citizens and improvement of working conditions in order to decrease injures at work, occupational and related diseases, i.e. occupational risks elimination.

At proposal of the Ministry of Agriculture, Forestry and Water Management in August 2005, the Government of the Republic of Serbia adopted the **Serbian Agricultural Development Strategy**. The strategy provides the main directions of development of safe plant protecting and nutrition agents management. The Strategy states that legal standards concerning agriculture are comprehensive and include all necessary standards for the agricultural sector, from plant health and food safety to product labeling and consumer protection.

Moreover, the document states that it is necessary to harmonize the national with the international legislation and implement it aimed at increasing consumer safety, Serbian membership in WTO and EU, and particularly at inclusion of Serbia into international trade flows. Therefore, among various fields in which the Government contributes to the agricultural improvement, the field of food safety, animal health and plant protection is the most complex. According to the Strategy, there is a need to reform a system of food safety, animal health and plant protection and hence improve consumer protection on domestic market and enable free export of our products. The Strategy states that through reform of the Directorate for Plant Protection and Directorate for Veterinary medicine a strict control and supervision of borders throughout Serbia should be ensured. In order for this to happen, there is a need to set information network, ensure an efficient management system, improve technical equipment of services and build a permanent quality control system.

However, the Strategy states also that numerous weaknesses are caused by the inadequate financial arrangements. One of the weaknesses is that producers and traders pay for services directly to laboratories that provide analysis and sometimes even certify their products, creating significant room for inconsistent or even corrupt practice. Another reason is lack of public financing of activities such as monitoring of residues through random sampling, whereas it is important to monitor the overall population. Such activities should be financed (through some ministries) from tax proceeds or funds collected from the industries through registration fees and levies.

The Agricultural Development Strategy proposes as follows:

- creation of veterinary and phytosanitary service in line with international standards and real expectations of the consumers in Serbia;
- health protection from diseases caused by food or animals, hazardous effects of pesticides, veterinary drugs and food additives;
- increase agricultural profitability through control of agricultural inputs, control of effects of damaging organisms important for the agriculture and provision of high health status of goods exchanged in international trade;
- protect the environment from negative effects of plant protecting agents and veterinary drugs.

Ministry of Environment and Spatial Planning and Faculty for Technology and Metallurgy prepared **Draft Strategy for Introducing Cleaner Production in the Republic of Serbia**. The Strategy has been submitted to the Serbian Government for adoption. The Strategy for Cleaner Production elaborates strategic documents, in particular, Strategy for Sustainable Development and Draft National Environmental Protection Program. The Strategy elaborates national concept for sustainable development through cleaner production implementation.

The Government of the Republic of Serbia in January 2006 adopted Strategy on Integrated Border Management. The Strategy defines development directions and reform processes necessary to implement aimed at establishment of the integrated border management system representing one of the main steps in the process of association of Serbia to the European Union.

The Action Plan on implementation of the Strategy on Integrated Border Management is developed in cooperation with all frontier services and other governmental bodies and institutions. The Action Plan on implementation of the Strategy on Integrated Border Management in the Republic of Serbia defines jurisdiction of government bodies, tasks and deadlines for tasks performance in order to achieve objectives defined by the strategy and establish more efficient border management system, in conformity with the European Commission Guideline for Integrated Border Management in the Western Balkans[7]. Taking into consideration the afore-said, there are three main elements: trade facilitation, border control and cooperation among transboundary regions. Since the Strategy does not envisage the inspection at border crossings be performed by the Republic Environmental Protection Inspection, the Action Plan defines that as of December 31, 2007 the inspection will be performed by governmental bodies that remain to perform control at the border (Custom Administration, Phytosanitary Inspection, Ministry of Interior Affairs). Based on an agreement, preliminary control of chemicals import/export has been performed by the Custom Administration since first quarter 2008.

In December 2007 Serbian government adopted the **Strategy of railroad, road, water, air and intermodal transport development in the Republic of Serbia for the period from 2008 to 2015**. This strategy defines the situation in this area, establishes the concept of infrastructure and transport development and defines long-term goals for development of transportation system and action plans for its implementation.

The overall goal of this Strategy that is reduction of adverse effects of transportation on environment is highlighted in accordance with sustainable development principles. The precondition for this is cooperation between competent authorities and institutions and participation of local authorities.

Strategy must be focused on providing better life quality and environmental protection. It is important in areas where public health and environment are at risk. One of its main goals is reducing of the adverse effects of transportation on the environment. Development of Serbian transportation system in accordance with sustainable development principles, reducing of the adverse effects of all aspects of traffic on the environment (reduction of air pollution, noise, green house gases) and motor pool renewal are activities that contribute to this goal. One of transport policies is orientated towards environmentally sound transportation types.

Legislations on transport of dangerous goods must be harmonized with EU regulations (ADR, RID, and AND) in order to improve transportation safety. Due to specific properties of transported goods and risks that it present to human lives, property and environment it is essential to establish a reliable system for quality control of all participants in transportation process, in order to prevent potential risks.

Environmental protection, improvement and stimulation of all types of clean technologies for construction and maintenance of public roads are the basis of national policy.

Use of new technologies and materials for construction and maintenance of public roads may be applied only along with internationally validated arguments that they have no adverse effects on environment and if they are in accordance with EU standards.

The state of motor pool is of great importance for road transport efficiency and safety as well as for environmental protection. Good results are achieved by implementing EURO standards for vehicles. Further, more it is necessary to improve legislation on vehicle testing and inspection control of units for technical testing of vehicles.

[7] Guidelines for Integrated Border Management in the Western Balkan, Updated Version January 2007

Close and efficient cooperation between authorities in charge for traffic and other competent authorities is necessary. The local authorities should be more involved.

4.3 Summary of Key Approaches and Procedures concerning Chemicals Control

4.3.1 Prohibited or Controlled Chemicals and Waste

4.3.1.1 Poisons

In conformity with Article 4, Para 3 of the Law on Production and Trade on Poisons («Official Gazette of FRY», 15/95, 28/96 and 37/2002) a List of Poisons whose production, trade and use are prohibited is prepared and published. Production, trade and use of poisons that can harm human life and health and the environment as well as poisons whose production, trade and use are prohibited in the country of origin, are prohibited.

Table 4.B: List of Poisons whose Production, Import, Import, Trade and Use are Prohibited («Official Gazette of RS», No. 72/2006.)

Generic name	CAS number	Purpose
Aldrin	309-00-2	I (insecticide)
Preparations containing more than 1% benzene (petroleum and petroleum products excluded)	71-43-2	IH (industrial chemicals)
Dieldrin	60-57-1	I (insecticide)
Hexaclor-benzene	118-74-1	F (fungicides)
Hexachlor-cyclohexan	608-73-1	I (insecticide)
Heptachlor	76-44-8	I (insecticide)
Chlordan	57-74-9	I (insecticide)
Chlordimeform	6164-98-3	A (acaricide)
Leptofos	21609-90-5	I (insecticide)
Sodium fluoracetate	62-74-8	R (rodenticide)
Lead arsenate	7784-40-9	I (insecticide)
Cihexantin	13121-70-5	A (acaricide)
PCBs (polychlorinated biphenyls)		IH (industrial chemicals)
Dinoseb	88-85-7	H (herbicide)
Dinoseb - acetate	2813-95-8	H (herbicide)
Dinoterb	1420-07-1	H (herbicide)
Kaptafol	2425-06-1	F (fungicide)
1,2-Dichloretan	107-06-2	IH (industrial chemicals)
1,2-Dibrometan	106-93-4	IH

		(industrial chemicals)

4.3.1.2 Plant Protecting Agents

In order for our country to follow changes in the EU even prior to the adoption of new regulations, the Directorate for the Plant Protection has adopted an enactment No. 321-02-00020-95/2005-11 of March 8, 2005 in conformity with Article 71 of the Law on Plant Protection („Official Gazette of FRY", No. 24/98, 26/98 and 101/2005-second version), informing producers of plant protecting agents, authorized agents of foreign producers and authorized institutions for testing of plant protecting agents that:

- licenses for placing plant protecting agents on the market produced from active substances not included in the Annex to the Decision of the Council 91/414/EEC will be valid until December 31, 2007 only for already registered plant protecting agents, that is, on the market in our country,
- registration of new plant protecting agents produced from active substances not included in the Annex I to Decision of the Council 91/414/EEC will not be done.

Therefore, at proposal of the Pesticide Commission, the Directorate has formed a working group in charge of defining a status of active substances not in trade in EU.

A list of active substances (Annex I to Directive 91/414/EEC) abandoned in EU is compared with a list of active substances in trade in our country. Out of all active substances abandoned in EU, the following 27 are in use in our country: acefat, amitraz, atrazine, benomil, fention, fentin-hydroxide, lindan, metalaxil, simazine, zineb, endosulphan, metidation, metalachlor, monokrotofos, terbufos, prometrin, acifluorofen, ametrin, bensultap, EPTC, imazapir, imazetapir, pirimisulphuron, fomesafen, setoxidim, triadimefon, triforin.

For each active substance there are conclusions proposed, depending on toxicological, eco-toxicological properties, behavior in the environment, level of residues due to registered application, as well as possibility to define necessary applications based on available data. The Directorate accepts proposed conclusions for Plant Protection.

Table 4.C: List of Active Substances of Plant Protecting Agents with Certain Restriction Level

Chemical Name	Restriction level	Restriction details (and restriction reasons)
Acefat	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
Amitraz	Licenses abbreviated and last until December 31, 2007. Usage prohibited after supplies are spent	Further import of this active substance and preparations using this active substance is prohibited
Atrazine	Licenses abbreviated and last until December 31, 2007.	Use for corn and sorghum is allowed (but not for monoculture). A project is launched aimed at analyzing the content of atrazine in water (in selected control places in the areas with intense application of atrazine, in the proximity of big water systems) and financial impact of replacing atrazine in the corn production
Benomil	Use is approved until the registration validity of December 31, 2009. The import is restricted	Reconsider decision on extension of use for roses in closed spaces as necessary application until 31/12/2009.

	only to indispensable purposes and known buyers.	
Fention	Use is approved until the registration validity (30/06/2014). Usage prohibited after supplies are spent.	Use is approved until the registration validity (30/06/2014) for indispensable use for sugar beet and corn. Further import of this active substance and preparations using this active substance is prohibited
Fentin-hydroxide	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
Lindan	Licenses abbreviated and last until December 31, 2007. Usage prohibited after supplies are spent	Further import of this active substance and preparations using this active substance is prohibited. Use is allowed in forestry for timber mass and products.
Metalaxil	Licenses abbreviated and last until December 31, 2007.	
Simazine	Licenses abbreviated and last until December 31, 2007.	
Zineb	Licenses abbreviated and last until December 31, 2007.	Declaration and instruction for use of preparations using this active substance in trade in our country, provides an added restriction: it shall not be used for crops whose production is intended for export. The restriction of the application will be in conformity with EU recommendation for essential use based on metabolite status.
Endosulphan	Licenses abbreviated and last until December 31, 2007. Usage prohibited after supplies are spent	Considering high evaporation of this substance (the presence is found even in regions where it has never been applied), its behaviors in the environment (persistency of known metabolites, for some of which degradation in the environment are unknown), and eco-toxicological properties («long term risk» substance), that some EU countries allow essential use until 30/07/2007 (Greece - cotton, tomato, pepper, pear, potato, alfalfa; Spain – filbert, cotton, tomato; Italy – filbert; Poland – filbert, strawberries, barberton daisy, bulb, ornamentals)
Metidation	Licenses abbreviated and last until December 31, 2007.	
Metolachlor	Licenses abbreviated and last until December 31, 2007.	
Monokrotofos	Licenses abbreviated and last until December 31, 2007. Usage prohibited after supplies are spent	
Terbufos	Use approved until registration expiring date on May 20, 2008. Usage prohibited after supplies are spent.	Use approved until registration expiring date on May 20, 2008) for indispensable use for sugar beet and corn Further import of this active substance and preparations using this active substance is prohibited.
Prometrin	Licenses abbreviated and last until December 31, 2007.	Ongoing procedure of defining necessary applications according to the EU recommendations for essential use based on metabolite status.

Acifluorofen	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent	Further import of this active substance and preparations using this active substance is prohibited
Ametrin	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent	Further import of this active substance and preparations using this active substance is prohibited
Bensultap	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
EPTC	Licenses abbreviated and last until December 31, 2007. Usage prohibited after supplies are spent.	
Imazapir	Licenses abbreviated and last until December 31, 2007. Usage prohibited after supplies are spent.	
Imazetapir	Use approved until registration expiring date on December 28, 2010	Indispensable use in soya bean until the registration expiration (28/12/2010)
Primisulphuron	Licenses abbreviated and last until December 31, 2007. Usage prohibited after supplies are spent.	
Fomesafen	Licenses abbreviated and last until December 31, 2007. Usage prohibited after supplies are spent.	
Setoxidim	Licenses abbreviated and last until December 31, 2007. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
Triadimefon	Licenses abbreviated and last until December 31, 2007. Usage prohibited after supplies are spent.	
Triforin	Licenses abbreviated and last until December 31, 2007. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited

Table 4.D: List of Active Substances of Plant Protecting Agents whose Licenses are Revoked before 2004, in conformity with Decisions on non-inclusion of active substances in the Annex I of Directive 91/414/EEC.

Chemical Name	Restriction Level[1]	Restriction details (restriction reasons)
Permetrin	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
Profam	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
DNOC	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
Fenvalerat	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent..	Further import of this active substance and preparations using this active substance is prohibited
Mercury compounds	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
Fentine acetate	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
Ophuras	Licenses for placing it on the market revoked. Usage prohibited	Further import of this active substance and preparations using this active

	after supplies are spent.	substance is prohibited
Azametifos	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
Paration	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
Haloxifop	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent..	Further import of this active substance and preparations using this active substance is prohibited
Dichlorprop	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
Forat	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
Bensultap	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
Cikloat	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
Demeton-S-methyl	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited
Fenpropatrin	Licenses for placing it on the market revoked. Usage prohibited after supplies are spent.	Further import of this active substance and preparations using this active substance is prohibited

4.3.1.3 Waste

Table 4.E: Restriction level for some types of waste

Name of Chemical	Restriction Level
Dangerous substances (in accordance with the Law on Transportation of Dangerous Goods, „Official Gazette of SFRY“, No. 27/90, 45/90 and „Official Gazette of FRY“, No. 24/94, 28/96, 21/99 and 44/99)	Prohibited import of scrap of dangerous substances of foreign origin aimed at temporary or permanent disposal on the territory of our country
Dangerous waste (in accordance with the Law on Environmental Protection, (“Official Gazette of RS”, No. 135/04”))	Prohibited import of dangerous waste
Waste (in accordance with the Law on Environmental Protection, (“Official Gazette of RS”, No. 135/04”))	Waste can be imported if cannot be procured in Serbia, and necessary in production of secondary raw material

4.3.2 Import and Export - PIC Procedure

Decisions on import of chemicals requiring prior informed consent procedure (PIC procedure) are made based on regulations defining prohibition and restrictions of use of chemicals for certain types of usage. Republic of Serbia has not ratified the Rotterdam Convention yet, so it does not apply the PIC procedure in export to other countries. Decisions on import and export of chemicals from the

List of Rotterdam Convention will be submitted to the Secretariat of this Convention upon its ratification. The Draft Law on Ratification of the Rotterdam Convention has been submitted for adoption to the Parliament of the Republic of Serbia. Provisions that are needed for the implementation of the Convention are incorporated in the Draft Law on Chemicals while detailed implementation of the PIC procedure will be governed by by-law regulations.

4.4 Comments and Recommendations

Serbia aspires to accession into the EU and its decision is shown in the Resolution on Association to the EU, adopted at the National Assembly of October 13, 2004. Harmonization with the EU regulations is a comprehensive and urgent task for the country whose commitment is accession to the EU. Obligation to harmonize the legislation of the Republic of Serbia with EU legislation is mentioned for the first time in the Resolution on Association to the European Union and therein it is stated that harmonization of regulations will be a priority for the Serbian Assembly together with introduction of procedures aimed at increasing efficiency of that process.

Since the July 2003, the Government of the Republic of Serbia has started to plan harmonization of draft laws with the EU regulations in its annual plans. These plans also include explanation concerning necessity to adopt certain laws, institution in charge for enforcement of these laws, as well as other elements important for the harmonization of the national legal system with the EU legislation issue.

The current Law in force regulating chemicals as products is the Law on Production and Trade of Poisons («Official Gazette of FRY», 15/95, 28/96 and 37/2002). It does not regulate all chemicals, but only poisons. However, definition of poisons does not refer only to poisonousness (toxicity, i.e. impact of chemicals to the human health), but it is to conclude that the Law regulates dangerous chemicals. This terminological problem causes many problems concerning the Law enforcement. A difficulty in the Law enforcement is caused also by the obligation of a governmental body to classify all poisons placed on the market. In EU, obligation of governmental body to classify chemicals relates to plant protection products and biocides as well as some specific chemical substances that present great danger (e.g. carcinogenic, mutagen, toxic for reproduction, etc.). According to the Serbian regulation in force, the competent governmental body is obliged to classify all poisons (substances and mixture), i.e. all dangerous chemicals, based on poison definition. Considering high number of dangerous chemicals on the market, such an approach in domestic legislation is not sustainable and it happens that decisions on which dangerous chemicals will be classified by a competent governmental body is done arbitrary, without legally defined criteria. Moreover, criteria for classification of chemicals are not defined as it is prescribed by the EU regulations. Domestic regulations do not define enough technical details needed for chemicals classification. It causes problems in classification of chemicals and further to this their proper labeling However, lot of chemicals on the Serbian market are labeled as it is regulated in the EU, because they are imported from EU or owners of companies producing certain chemicals are from EU.

There is substantial difference between our and European legislation concerning assessment of chemical impact to human health and the environment. It is done through the toxicological assessment, a process significantly different from risk assessment procedure defined by the EU regulation. The toxicological assessment gives information on dangerousness of a certain chemical, but not its risk which depends on its use, i.e. exposure to certain chemical (risk is presented by its dangerousness and exposure). The domestic legislation does not clearly define the toxicological assessment procedure i.e. content and volume of document providing the toxicological assessment The procedure is the same for all types and quantities of poisons.

EU regulations on chemicals management are mainly address safety of chemical products, but not conditions which should be met by legal persons producing and trading chemicals. According to the

Law on Production and Trade of Poisons («Official Gazette of FRY», 15/95, 28/96 and 37/2002) and Decision on Conditions which must be fulfilled by Legal Persons and Entrepreneurs which Produce, Trade and Control Poisons ("Official Gazette of FRY", No. 30/1996) some of conditions that need to be checked are in the domain of the sanitary control, some of them relates to occupational safety and health control while some concern environmental protection issues. This area will be harmonized with the EU regulations with adoption of the new Law on Chemicals.

In the EU there is a List of chemicals whose all ways of use are prohibited and of chemicals for which some ways of use are allowed, while Law on Production and Trade of Poisons («Official Gazette of FRY», 15/95, 28/96 and 37/2002) prescribes only the prohibition of usage of chemicals. The published List of prohibited chemicals in Serbia (List of Poisons whose Production, Import, Import, Trade and Use are Prohibited («Official Gazette of RS», No. 72/2006.)) is much shorter compared to the EU list (although it is stated in the Law that all chemicals banned in country of origin are prohibited in Serbia as well). In order to ban certain substance or restrict its use, socio-economic analysis is developed in EU in terms of estimation of expenses of the industry and social aspect caused by such a decision. Development of a socio-economic analysis is not required by our legislation.

A huge burden to Serbian economy and administration is caused by the obligation to issue licenses for import, export and transit of poisons, which do not provide an adequate control over these substances. Such way of chemicals management is not common in EU countries. It is necessary to implement other measures to reduce risks from chemicals and the new Law on Chemicals will regulate it.

The last stage in the life-cycle of chemicals, disposal of chemical waste and disposal of waste packing of chemicals, has not been properly regulated yet, but it is expected that the new regulations concerning waste management will do so.

It can also be concluded that that numerous weaknesses of the existing system are caused by the inadequate financial arrangements. One of the weaknesses is that manufacturers and traders pay for services directly to authorized legal persons that provide toxicological assessment, creating significant room for inconsistent or even corrupt practice. The fee amount for toxicological assessment paid to legal persons is not defined, it is calculated arbitrary. Such direct payment to authorized legal persons causes lack of proper finance sources for work of government authorities and inspection concerning the chemicals management area. These fees should include activities that the government authorities implement in order to ensure sound chemicals management. Part of collected fees should be allocated, in the amount defined by the law, to authorized legal persons for their toxicological assessment. Regarding financing, it is a paradox that the government authorities do not withdraw from the fees for issuing of licenses for trade of poisons, although such a control does not contribute to sound chemicals management. It makes flow of goods more difficult at the border crossings and reduces efficiency of the domestic economy.

The field of biocides management has not been fully regulated. Conditions for placing biocides on the market are not adequately prescribed, for some biocides these conditions are defined within different laws, so that the control of these biocides on the market is inadequate.

The Ministry of Environment and Spatial Planning has prepared draft Law on Chemicals and draft Law on Biocides harmonized with the EU regulations. Draft Law on Chemicals is partly harmonized with Regulation 1907/2006 on Registration, Evaluation and Authorization of Chemicals – REACH while Directive 2004/42/EC on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products, Regulation (EC) No 304/2003 concerning the export and import of dangerous chemicals and Directive 648/2004 on Detergents are fully transposed in the draft Law. There is also an authorization to develop regulations that will implement new EU legislation on classification, labeling and packing of chemicals by which the EU will implement the UN Globally Harmonized

System of Classification and Labeling of Chemicals (GHS). Until the adoption of that regulation, this issue will be regulated by the by-law on classification, labeling and packing in accordance with Directive 67/ 548/EEC and Directive 1999/45/EC. This draft law does not contain REACH provisions, which regulate implementation of centralized procedures within the European Chemicals Agency (ECHA), i.e. registration, evaluation and authorization. The Draft Law on Biocides is partly harmonized with Directive 98/8/EC on Biocides, but it fully implements Regulation (EC) 1896/2000, Regulation (EC) 1687/2002, Regulation (EC) 2032/2003, and Regulation (EC) 1048/2005. The Draft law takes over authorization from Directive 98/8/EC and establishes permits for placing biocides on the market. Besides, positive list of active substances from this regulation is also taken over having in mind that this procedure is centralized in EU and managed by EU Commission body.

The Law on Transportation of Dangerous Goods is being prepared and it will harmonize competence of Ministry of Internal Affairs with the same one in EU.

The Law on Plant Protection („Official Gazette of FRY“, No. 24/98, 26/98 and „Official Gazette of RS“, No. 101/05) covers plant protection products (pesticides) and plant nutrition products (fertilizers). The Law regulates conditions for registration (authorization) aimed at placing on the market, production, import and large-scale trade and retail.

In late 80s and early 90s of last century, jurisdictions concerning pesticides were at federal level and divided between two ministries, Ministry of Agriculture and Ministry of Health.

The Ministry of Health was in charge of classification and labeling of chemicals (among other, pesticides – based on recommendations of the Commission for poisons) and defining of maximum residue levels (MRLs) (based on recommendations of the Commission for MRL).

Ministry of Agriculture was in charge of issuing rulings for placing pesticides on the market, according to the tests on efficacy and physico-chemical properties (based on recommendations of the Commission for Pesticides) as well as on classification and labeling and MRL defined by the Ministry of Health.

Cooperation and coordination between these two ministries was efficient and resulted in issuing of the last official Regulations on maximum permitted levels of pesticides, metals and semimetals and other toxic substances, chemotherapeutic, anabolic and other substances that can be in food products (“Official Gazette of FRY”, No. 5/1992). Currently, the field of pesticides is under the jurisdiction of three ministries: Ministry of Environment and Spatial Planning (classification and labeling), Ministry of Health (defining MRL) and Ministry of Agriculture, Forestry and Water Management (efficiency and physico-chemical properties), with lack of coordination and cooperation.

Problems identified by representatives of the Ministry of Agriculture, Forestry and Water Management (Directorate for Plant Protection) are as follows: Ministry of Environment and Spatial Planning does not have the access and documentation according to which authorized scientific institutions provide toxicological assessment reviewed by the Commission for Poisons (problem: usage of documentation for other applicants without knowledge of the owner of the documentation – no intellectual property rights protection as well as lack of evidence that necessary documentation is actually submitted – no control over authorized institutions).

The Ministry of Environment and Spatial Planning and Ministry of Agriculture, Forestry and Water Management adopt temporary MRLs for pesticides. It has no official values because it is not included as an Annex to the Regulations on Maximum Permitted Quantities of Pesticides metals, and semimetals and other toxic substances, chemotherapeutic, anabolic and other substances that can be in food products (“Official Gazette of FRY”, No. 5/1992). Official MRL are not adjusted to the Serbian Good Agricultural Practice i.e. a lot of pesticides are no longer in use in the agriculture.

A proper system of education and licensing concerning use of plant protection products does not exist – the institution of „professionally qualified person in charge of application of plant protection products“has not been established. Adequate system for control of equipment and devices for the application of plant protection products has not been established.

Moreover, disposal of pesticides and packing used for pesticides is a problem. There is no inventory on obsolete pesticides. There is no system for disposal of prohibited or restricted pesticides or obsolete pesticides (inadequate cooperation between line ministries as well as inadequate capacities for sound disposal or controlled destruction).

These are the main reasons for adoption of new regulations concerning pesticides that will, together with the new Law on Chemicals, among others, formulate a clear national policy concerning pesticides - one authority responsible for pesticides (plant protection products), assessment and authorization (registration) of plant protection products and auxiliary plant protection products (products with no pesticide effects, such as surfactants, etc.) according to the EU principles It means to separate risk assessment from the risk management, keep the national registration system (to use available human resources - capacities), post-registration control of plant protection products in conformity with Article 17 of Directive 91/414/EEC (planning of control annually; preparation of a methodology for control and control coordination; collection of data concerning control) and more effective exchange of information among government authorities, particularly those concerning obsolete pesticides, prohibited substances, pesticides with restricted usage and packing.

The main problem concerning enforcement of the Law on Transportation of Dangerous Goods („Official Gazette of SFRY“, No. 27/90, 45/90 and „Official Gazette of FRY“, No. 24/94, 28/96, 21/99 and 44/99) is insufficient enforcement of the international regulations, European Agreement on International Transport of Dangerous Goods by Road (ADR), International Agreement of Transport of Dangerous Goods by Rail (RID) and European Agreement Concerning International Carriage of Dangerous Goods in Inland Waterways (ADN), which still has not been ratified as well as regulations concerning the air transport and maritime transport. On the one hand, they are directly incorporated into our legal system by called to the Law on Transportation of Dangerous Goods („Official Gazette of SFRY“, No. 27/90, 45/90 and „Official Gazette of FRY“, No. 24/94, 28/96, 21/99 and 44/99), and on the other hand, they have never been published in the official gazette as by-law regulations and they are not updated regularly. Therefore, companies dealing with dangerous substances transportation and inspection in charge of supervision of the law enforcement and therefore implementation of ADR and RID are insufficiently familiar with their contents. Even the ministries, which were earlier responsible for the enforcement of this Law, did not dedicate enough attention to these international regulations. Therefore, and also due to prescribed obligatory license for the transport of certain dangerous substances over the state border (e.g. poisons) and due to the soft penalty policy, adoption of a new law is needed.

The Advisor for safe transport of dangerous goods (introduced by modified RID/ADR regulations of 2001) has not been implemented as the main instrument for safe transport of dangerous goods due to the lack of regulation governing conditions for legal persons and procedures for training of the advisor defined by RID/ADR (testing, appointment, etc.). The consequence of this is lack of the records on all relevant information concerning quantities and transport flows of dangerous goods, companies, trained personnel, types of transported dangerous goods, safety risks implemented in conformity with the RID/ADR, etc. Regulations concerning training and skill improvement have not been harmonized with current ADR and RID provisions and the regulation governing this issue has not been adopted. Regulations concerning licensing of companies, which test packaging, containers and tanks, and regulations governing licensing of experts responsible for procedures of RID/ADR are not developed. There is no regulation on packaging cleaning and washing, especially large packaging, containers and tanks as well as no regulation on handling areas. Considering that the afore-mentioned regulations do not exist, there is no control instrument to provide information on status of harmonization with RID/ADR requirements.

Reasons for the adoption of the new law and by-laws concerning transport of dangerous goods as well as establishment of proper inspection system are obvious. The Ministry of Infrastructure is currently preparing new Law on Transportation of Dangerous Goods.

The Law on Occupational Safety and Health ("Official Gazette of the Republic of Serbia", No. 101/05) is a new law harmonized with EU regulations. One of the very important by-laws that should be prepared by the Directorate of Occupational Safety and Health is Regulations on workers safety and health and protection from risks of chemical agents in working environment. The Regulations will replace regulations in this field, some of which are over fifty years old. Representatives of the Ministry of Environment and Spatial Planning - Department for Chemicals should participate in drafting of the Regulations and Guidance on handling dangerous chemicals in the working environment.

It can be concluded that regulations governing chemicals classified as dangerous based on physical and chemical properties (explosives, flammable liquids and gases) and implemented by the Ministry of Interior Affairs are old in terms of technical and technological innovations. The Law solutions are not in line with new organization in the society and economy and there are numerous reasons for adoption of new regulations. Ministry of Interior Affairs started activities on implementation new regulations harmonized with EU.

Likewise all European countries and EU, our country needs to ratify two conventions concerning chemicals management: Rotterdam convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and Stockholm Convention on Persistent Organic Pollutants. Provisions of the new Law on Chemicals and by-laws will comprehensively enable implementation of the Rotterdam Convention. Aimed at preparation of Serbia for ratification and implementation of the Stockholm Convention, Serbia has received funds from UNEP/GEF to develop the National Implementation Plan, an ongoing process that should be completed by the end of 2008. One of designed objectives within POPs project is to analyze current national regulations and to recommend their amendments in order to enable implementation/enforcement of the Convention.

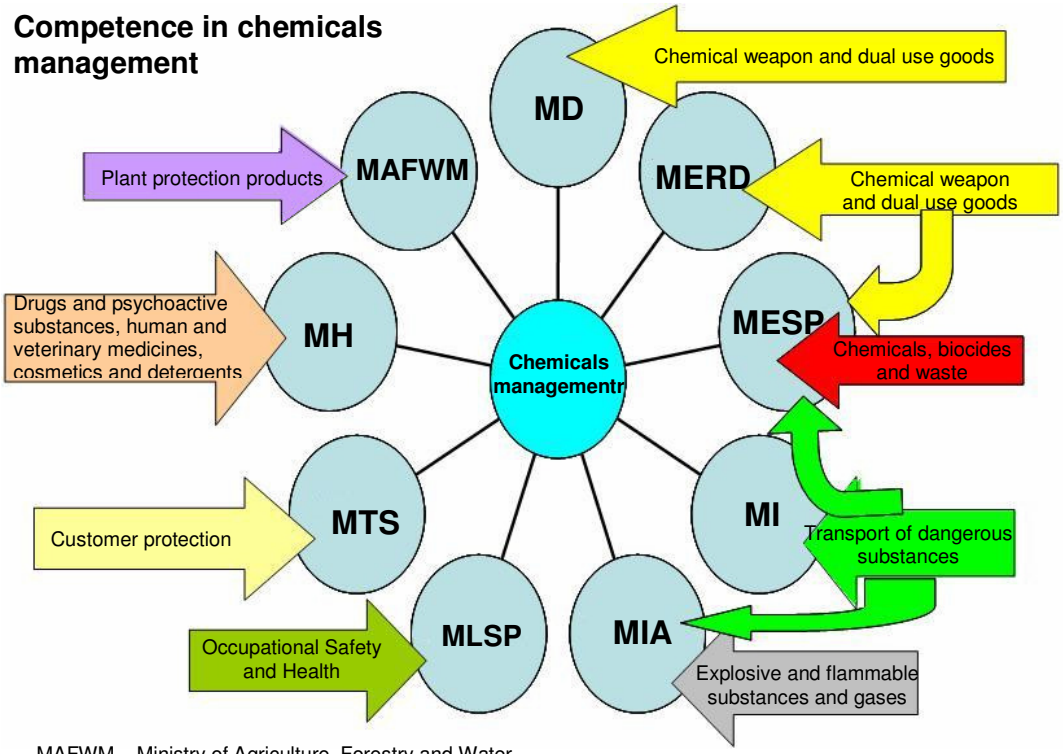
It is necessary to conclude that, due to complexity of chemicals management issues and necessity of sound chemicals management through the whole life-cycle, from production to disposal, it is necessary to develop a strategic document for sound chemicals management. When developing the document, it should be taken into consideration existing strategies and programs that are mentioned in the previous Section, dealing with chemicals management as well as the future Action Plan for Chemical Management being prepared based on the Draft National Environmental Protection Program. The strategic document should help national legislation to be mutually harmonized when harmonizing it with EU regulations. In the preparation of this paper, it is needed also to consider the Strategic Approach to International Chemicals Management, which support the achievement of the 2020 goal agreed at the Johannesburg World Summit on Sustainable Development for sound chemicals management. This document as well as future strategic document should be connected to the National Sustainable Development Strategy.

V CHAPTER: MINISTRIES, AGENCIES AND OTHER INSTIOTUTIONS MANAGING CHEMICALS

5.1. Description of Jurisdictions and Mandates of Government Bodies
5.2 Comments and Recommendations

5.1 Description of Jurisdictions and Mandates of Government Bodies

5.1.1 Government Administration Bodies



The Law on Ministries («Official Gazette of RS», No. 43/07) forms ministries and special organizations and defines their responsibilities. The Law on Ministries («Official Gazette of RS», No. 43/07) prescribes that Ministry of Environment and Spatial Planning is responsible for chemicals management. Certain issues concerning chemicals management are in jurisdiction of other ministries; Ministry of Agriculture, Forestry and Water Management - Directorate for Plant Protection is responsible for plant protecting and nutrition agents (pesticides and fertilizers); Ministry of Health is responsible for enforcement of the Law on Health Control of Food and Goods for General Use („Official Gazette of SRS“ No. 48/77,29/88,44/91 and „Official Gazette of RS“ No. 48/94) (cleaning agents and cosmetic products) and Law on substances used in prohibited production of narcotic drugs and psychotropic substances („Official Gazette of RS“ No. 107/05)**;** Ministry of Interior Affairs is in charge of enforcement of the Law on explosive substances**,** flammable liquids and gases („Official Gazette of SRS“, No. 44/77, 45/85, 18/89, 53/93, 67/93, 48/94), Law on trade of explosive substances ("Official Gazette of SFRY", No. 30/85, 6/89, 53/91, "Official Gazette of FRY", No. 24/94, 28/96, 68/2002) and part of the Law on Transportation of dangerous goods („Official Gazette of SFRY“, No. 27/90, 45/90 and „Official Gazette of FRY“, No. 24/94, 28/96, 21/99 and 44/99); Ministry of Labor and Social Policy - Directorate for Occupational Safety and Health is responsible for enforcement of the Law on Occupational Safety and Health ("Official Gazette of the Republic of Serbia", No. 101/05), and therefore of

implementation of measures concerning chemicals management at work. There are three ministries responsible for enforcement of the Law on Transportation of Dangerous Goods („Official Gazette of SFRY", No. 27/90, 45/90 and „Official Gazette of FRY", No. 24/94, 28/96, 21/99 and 44/99): Ministry of Infrastructure, Ministry of Interior Affairs and Ministry of Environment and Spatial Planning.

In conformity with the Law on Ministries («Official Gazette of RS», No. 43/07), the area of chemicals management and environmental and health protection is organized as follows:

Ministry of Environment and Spatial Planning, performs government administrative and professional and technical activities concerning the system of protection and sustainable use of natural resources (air, water, soil, mineral resources, forests, spices of wild fauna and flora), environmental protection and improvement system; ozone layer protection; transboundary air and water pollution; setting environmental protection conditions concerning spatial planning and building of facilities; early warning of accidents; production, trade of poisons and other dangerous goods, excluding narcotic drugs and precursors; chemicals management; waste management, excluding radioactive waste; approval of transboundary trade in waste; inspection control concerning natural resources sustainable use and environmental protection as well as in other areas; ecological inspection at border crossings. Control over enforcement of Law on Production and Trade of Poisons («Official Gazette of FRY», 15/95, 28/96 and 37/2002) is performed by the environmental protection inspection. In conformity with the Law, the inspection refers mainly to verification of fulfillment of conditions by legal entities to produce and trade poisons. Although stated in the Law, the inspection does not verify whether certain poison is classified or labeled correctly. Control over import and export of poisons, according to the Law on Transportation of Dangerous Goods („Official Gazette of SFRY", No. 27/90, 45/90 and „Official Gazette of FRY", No. 24/94, 28/96, 21/99 and 44/99), has been performed by the Custom Administration since 2008.

Directorate for Plant Protection, as a government administration body within the Ministry of Agriculture, Forestry and Water Management, performs government administrative and professional and technical activities concerning: plant protection from infectious diseases and pests; control of plant protecting agents and fertilizers in production, domestic and foreign trade; control of application of plant protecting agents; production and registration of plant protecting and nutrition agents; phytosanitary inspection and inspection concerning domestic and foreign trade in plant, seeds and planting material as well as other activities defined by the Law on Plant Protection („Official Gazette of FRY", No. 24/98, 26/98 and „Official Gazette of RS", 101/05 – second version). Border phytosanitary inspection, at defined border crossings, inspects, besides plants, import of plant protecting and nutrition agents i.e. determines they are registered for trade in our country and whether the quality satisfies set requirements. Internal phytosanitary inspection, besides over production and simple plant processing and warehousing, supervises quality plant protecting and nutrition agents and whether application is in accordance with the good agriculture practice and good plant protecting practice. Moreover, the phytosanitary inspectors supervise also plant producers in terms of whether they use plant protecting agents in areas where their usage is prohibited or restricted and in terms of correct use of machineries, equipment and instruments for their application. The phytosanitary inspectors supervise entities dealing with production, trade and import of pesticides and fertilizers.

Ministry of Health performs government administrative activities concerning health care system; production and trade of drugs, medical supplies and curative agents and inspection service in these fields; production and trade in narcotic drugs and precursors of illegal drugs; sanitary inspection of health safety of food and consumption goods in production and trade, public supply of the population with hygienically safe drinking water; control of sanitary and hygienic state of facilities subject to inspection; setting sanitary, hygienic and health conditions for facilities subject to sanitary inspection during building or rehabilitation and routine inspection over those facilities; sanitary inspection at border-crossings.

Ministry of Labor and Social Policy performs government administrative activities concerning occupational safety and health. The Directorate for Occupational Safety and Health within the Ministry of Labor and Social Policy was established on the grounds of the Law on Occupational Safety and Health ("Official Gazette of the Republic of Serbia", No. 101/05) and this Directorate performs government administrative activities aimed at improvement and development of occupational safety and health, reduction of number of accidents at work, occupational diseases and illnesses. Besides the afore-said responsibilities, the Ministry prepares regulations concerning occupational safety and health, prepares professional basis for development of national occupational safety and health development program and monitors its implementation, monitors and evaluates the state of occupational safety and health and prepares its opinions for unified setting of occupational safety and health measures subject to this law and other regulations, prepares methodologies needed for monitoring and analysis in the area of occupational safety and health, studies causes and circumstances causing injuries at work professional diseases and illnesses, organizes examination of vocational ability and keeps records thereof, supervises regularity of work of legal entities and entrepreneurs as well as responsible persons provided with licenses and prepares proposal of decisions for issuing or revoking of licenses and keeps records thereof, collects and analysis data on injuries at work, occupational diseases and illnesses and circumstances effecting the workers' health, performs information and documentation activities concerning safety and health of workers, organizes counseling, provides training to workers, employers, persons in charge of occupational safety and health, inspectors, etc., publishes various materials and inform public on the state concerning occupational safety and health; takes care of implementation of international agreements concerning occupational safety and health and encourages education and culture development concerning occupational safety and health.

Inspection service performs inspection concerning occupational safety and health in all chemical industries and all activities where chemicals are used. The Inspection performs routine and random inspections, investigations regarding injuries at work, makes decisions, lodges claims to the to the police court judge as well as performs other activities related to the inspection.

Ministry of Interior Affairs performs government administrative activities concerning regulations and control of transport on roads, trade and transport of explosive and other dangerous substances and fire protection. According to the Law on Foreign Trade in Weapons, Military Equipment and Dual-Use Goods, (Official Gazette of Serbia and Montenegro“, No. 7/2005) - Ministry of Interior Affairs is responsible for transport and transit of weapons and military equipment by road and waterways.

Ministry of Infrastructure performs government administrative activities concerning rail, road, river and air transport.

Ministry of Trade and Services performs government administrative activities concerning consumers’ protection as well as advisory and consultation affairs within Minister Council for Consumer Protection, which includes representatives of government authorities, organizations and experts in the field of consumer protection.

Ministry of Defense performs government administrative activities concerning incidents sanitation with department for extremely situation in which competency are Centre for enquiry (Service 985) which are on duty 24 hours to provincial and republic areas.

Environmental Protection Agency, as a body within the Ministry of Environment and Spatial Planning, performs professional and technical activities concerning the following: development, harmonization and keeping national environmental protection informational system (monitoring the state of environmental factors, polluters cadastre, etc.); collection and unification of environmental data, their processing and reporting on the state of the environment and implementation of environmental protection policy; development of environmental data processing procedure and their evaluation; keeping data on the best available techniques and practices and their application in the

field of the environmental protection; cooperation with the European Environmental Protection Agency (EEA) and European Environment Information and Observation Network (EIONET).

Republic Water Directorate, as a body within the Ministry of Agriculture, Forestry and Water Management, performs government administrative and professional and technical activities concerning water protection measures implementation.

Ministry of Science and Technology Development performs government administrative activities concerning: system, development and improvement of scientific and research activities with a purpose of scientific, technological and economic development, training of personnel for scientific and research activities, setting and implementation of innovation policy, setting policies and strategies needed for establishment of the informational society, coordination in drafting strategic and development documents at the level of the Republic of Serbia.

Veterinary Directorate, as a body within the Ministry of Agriculture, Forestry and Water Management, performs government administrative and professional and technical activities concerning animal feed and components for animal feed, control over production and internal and foreign trade in drugs and biological agents for veterinary use.

Ministry of Economy and Regional Development performs government administrative activities concerning the following: foreign trade policy and regime, monitoring and implementation of cooperation between the republic bodies and international economic organizations and UN agencies. According to the Law on Foreign Trade of Weapons, Military Equipment and Dual-Use Goods, ("Official Gazette of SM", No. 7/2005), Ministry of Economy and Regional Development is responsible for issuing licenses for foreign trade in controlled goods as well as transport and transit of weapons and military equipment in waterways.

Ministry of Education performs government administrative activities concerning research activities, planning and development of pre-school, elementary, secondary, college and university education.

Business Registers Agency was established by the Law on business registers agency ("Official Gazette of RS", No. 55/2004). The Business Registers Agency runs three registers: Business Register; Register of Pledges over Movable Property and Rights; Register of Financial Leasing, Both Business Register and Register of Financial Leasing stat being operations on January 4, 2005.
By introduction of a new registration system, the Business Registers Agency takes responsibilities of registration of legal entities from commercial courts and local self-government bodies. The Agency was established with the aim of increasing rentability, data availability and creation of a single centralized database – records on registered businesses, contracts on financial leasing and pledges.
The new system of business registration enables to interested parties to start-up business through a quick and simple procedure available and updated data to potential business partners

5.1.2 Institutions Performing Environmental Protection Monitoring

Republic Hydrometeorological Service is a Republic organization for provision of hydrometeorological services on the territory of the Republic of Serbia, including also environmental quality control. The Hydrometerological Service plans, sets, maintains and develops meteorological and hydrological stations network; systematically monitors quantitative and qualitative atmosphere parameters, underground and surface waters; plans, sets, maintains and develops system for collection, processing, filing and distribution of meteorological and hydrological data and information and data on water and air quality; maintains and develops meteorological and hydrological forecasting system, prepares weather and water forecasts, issues severe weather warnings and informs about accident contamination of air and water; develops

meteorological and hydrological master plans, analysis and studies needed for planning, designing of objects and systems and fulfillment of international obligations concerning meteorology and hydrology.

Public Health Institutes cover ambient air quality monitoring in local urban agglomeration network and surface water quality monitoring concerning flows through urban areas, monitor hygienic safety of drinking water, baths, waste water, food and general use goods as well as noise. These institutions measure air quality in 28 towns (60 control points). The environmental protection inspection performs supervision over enforcement of regulations and monitoring of emissions, but these issues have not received necessary attention. There is no internal monitoring performed by the industry and other polluters.

Recycling Agency, deals with management of waste material as secondary raw material - particularly for recycling and reuse of waste. The Agency monitors the use of secondary raw materials and performs waste classification.

At the level of Autonomous Province (AP), the responsibility is with the ***Province Secretariat for Environmental Protection and Sustainable Development.*** Certain jurisdictions in terms of environmental protection were transferred in 2002 to the AP of Vojvodina by the Law on setting jurisdictions of the autonomous province of Vojvodina ("Official Gazette of RS", No. 6/02). AP of Vojvodina, through Province Secretariat for Environmental Protection and Sustainable Development, ensures carrying out of activities concerning the following: development of programs on environmental protection and sustainable development on the territory of the province and providing measures for their implementation, monitoring of the state and informational sub-system, issuing of approval to the environmental impact assessment relevant to its territory, approval to programs concerning flora and fauna, forest and water, building and agricultural land protection and improvement, as well as approvals to urban development plans for the territory of the national park on the territory of the autonomous province; inspection in all areas concerning environmental protection except in the areas of dangerous substances and biodiversity preservation, and performing of other issues of the interest for the province, in conformity with the Law. The province is responsible also for strategic plans and programs evaluation and issuing of integrated licenses for plants and activities on its territory.

Municipalities/Towns have responsibility concerning urban planning, environmental protection and improvement and utility services. At the local level, environmental protection secretariats have limited responsibility concerning environmental issues including air, noise, waste management, urban planning, building permits for small facilities as well as strategic assessment of plans and programs, environmental impact assessment of projects and issuing of integrated licenses from its jurisdiction.

5.2 Comments and Recommendations

In the Draft National Environmental Protection Program, it is stated that there is lack of inter-sectoral cooperation of competent bodies concerning chemicals management, competent for certain aspects of chemicals management (from production/import to disposal).

Such a state is illustrated by the following examples: overlapping of jurisdictions concerning pesticide residues between Ministry of Health and Ministry of Agriculture, Forestry and Water Management: Article 5 of the Law on Plant Protection Products ("Official Gazette of FRY", No. 24/96, 26/96 and 101/05-second version) regulates that the unit for plant protection performs forecasting and reporting activities, including, among others, systematic control of degrees and scope of contamination of food products, soil and water by pesticides. Article 4 and 5 of the Law on Health Control of Food and Goods for General Use („Official Gazette of SRS"No. 48/77, 29/88, 44/91 and „Official Gazette of RS"No. 48/94) regulates what is understood as health safety of food

(hygienic safety and contents safety). In accordance with these Articles, hygienically unsafe food is food-containing pesticides in quantities that can harm the human health.

However, the following actually happens: although both ministries have defined jurisdictions by the Laws, none of them performs activities properly. The Ministry of Health contests jurisdiction of the Ministry of Agriculture, Forestry and Water Management regarding this issue, does not provide data concerning the national monitoring of food nor consult any ministry (Ministry of Environment and Spatial Planning or Ministry of Agriculture, Forestry and Water Management) concerning this issue (in terms of new pesticides used in agricultural practice and their temporarily adopted MRLs), while laboratories authorized for this type of testing by the Ministry of Health have limited capacities in terms of capacities to test active substance residues and training for this type of testing. Therefore, there is neither adequate national monitoring of pesticide residues nor monitoring of specific foodstuff or certain food producers that has bee previously noted having problems with pesticide residues (enforcement- follow up monitoring).

The Directorate for Plant Protection within Ministry of Agriculture, Forestry and Water Management is of the opinion that according to the regulation, the problem should not exist, but in practice, there is the problem concerning jurisdictions over pesticide residues, prohibited substances, pesticides with restricted use and packaging, and especially over end users (those applying pesticides).

As regards transport of dangerous goods, there is overlapping in issuing of approvals, inspection and control of transport of certain classes of dangerous goods depending on types of transport (international, internal). For example, for the same class, license for import, export, transit is issued by one ministry, while another ministry issues approval for internal transport. Considering the fact that the jurisdiction is not clearly defined, according to the Ministry of Infrastructure, there is encroaching of the environmental protection inspectors on implementation of RID/ADR i.e. inspection that according to the Law on Transportation of dangerous goods („Official Gazette of SFRY“, No. 27/90, 45/90 and „Official Gazette of FRY“, No. 24/94, 28/96, 21/99 and 44/99) is in the jurisdiction of the Ministry of Infrastructure during the transport of dangerous goods. The problem is interpretation of the Law on production and trade of poisons («Official Gazette of FRY», 15/95, 28/96 and 37/2002), since there is a misinterpretation that trade in poisons includes transport of dangerous substances. Trade in poisons should be understood as supply (making available) of chemicals to third parties for a compensation or free of charge.

As concerns transport and responsibilities in transport, including transportation disturbances and smaller leakages, not presenting risks to the environment, it is considered that those should be in jurisdiction of one of the people participating in transportation or his safety advisor (legal entity). According to the Ministry of Infrastructure, in situations that are considered disturbances in transport of dangerous substances when there are no leakages, it is unnecessary to involve inspections of the Ministry of Interior Affairs and Ministry of Environment and Spatial Planning, through regional warning centers. It contributes to additional overlapping of jurisdictions with the Ministry of Infrastructure.

However, considering that currently couple of laws concerning chemicals e.g. plant protecting agents, food safety, placing chemicals and biocides on the market, transport of dangerous goods as well as other laws are being drafted, this is the right moment to plan well and divide well jurisdictions. It should be done by using to the greatest possible extent existing resources of some ministries, and particularly of various inspection services, by use of good practice from EU countries in this area.

There is a need to set an informational system aimed at efficient data exchange, to connect it vertically and horizontally with line ministries and institutions responsible for supervision over certain stage of the chemical life-cycle. Moreover, the future institutional organization should consider a possibility to establish a centralized agency dealing with safety aspects of chemicals

being placed on the market, and used for different purposes (chemicals for general use and professional use, biocides, plant protection agents, cosmetic products and detergents), while the inspection of some chemicals is organized by different inspections (environmental protection agency, sanitary inspection, market inspection, etc.). Establishment of such an agency will solve issues within one institution. This agency should not deal with handling chemicals and processes, such as e.g. transport of dangerous chemicals, occupational safety and health, environmental protection. Such agencies already exist in Slovenia (Directorate for Chemicals Management), Environmental Protection Agency of Denmark, Swedish Agency for Chemicals, etc. Even the new EU regulation REACH establishes the EU Agency for Chemicals in Helsinki. Institutional arrangement should be considered closely in a study, in development of which government bodies in charge of subject -matters of work of the future agency should take part.

Draft Law on Chemicals envisages development of informational system for chemicals management.

According to the Law of Ministries («Official Gazette of RS», No. 43/07) Serbian Environmental Protection Agency is responsible for the managing of informational system on environmental protection (monitoring, keeping of various cadastres and registers, etc). This also includes data from informational system for chemicals management.

Considering that by now the Ministry of Economy and Regional Development has not been involved in chemicals management issues, it is extremely important especially for the industry that this Ministry be involved in the occasion of adoption of certain decisions concerning reducing risks from chemicals that should be implemented by chemicals producers. For example, there is a practice in EU that in decision making process concerning prohibition of use of certain chemicals (for all or some usages) socio-economic analysis is to be firstly developed, indicating to what extent and in which ways such a decision will affect the chemical industry or the industry using that particular chemical (how much will such a decision cost to the industry), an especially small and medium enterprises. In that process, Ministry of Economy and Regional Development should play a key role. A competent EU body for the industry (business) has had an important role in adoption of the new EU Law on Chemicals –REACH, in order to ensure balance between the economic development and protection of health and the environment.

Based on the Regulations of the Government, governmental bodies are obliged to cooperate when adopting new laws so that all ministries (that can be effected by the draft law), should submit opinion on the draft law prior to submitting the draft law to the Government. However, considering the number of laws currently being drafted and adopted, it often happens that advisors in the ministries that should provide an opinion are not timely involved in the drafting process, so that they are not familiar with the new law regulations proposed, which could have a consequence of "returning to the very beginning" by giving a negative opinion and loss of precious time or giving a positive opinion, based on superficial understanding of the matter. In order to utilize rationally the current staff working on chemicals management in different ministries, it is needed that the future inter-ministerial body in charge of coordination of chemicals management consisting of representatives of various governmental bodies coordinates drafting of laws and strategic documentation concerning chemicals management aimed at timely informing all stakeholders in ministries dealing with chemicals management and when necessary involve them in drafting process. Such an approach would significantly improve drafting efficiency and hence enforcement efficiency.

VI CHAPTER: RELEVANT ACTIVITIES OF THE INDUSTRY, ACADEMIA AND NGO SECTOR

6.1 Description of Organizations/Programs
6.2 Review of Expertise in the Industrial, Academic and NGO Sectors
6.3 Comments and Recommendations

6.1 Description of Organizations/Programs

6.1.1 Industrial sector

The chapter II provides review of the chemical industry in Serbia.

6.1.2 Serbian Chamber of Commerce

Serbian Chamber of Commerce is an independent, non-governmental, professional and expert and interest association of legal entities and physical persons performing registered business activities. Members of the Chamber of Commerce are companies from all industries, with different ownership structure, banks and other financial organizations, insurance companies, agricultural cooperatives - as collective members through their associations as well as crafts and other shops - as collective members through their associations. One of the main activities of the Chamber is provision of information and professional assistance and services in terms of the legal regulations concerning business, provision of business information on Serbian economy, as well as support in the process of introduction of quality systems. The Chamber of Commerce represents companies at national and international trade fairs, provides assistance when companies start international exchange of goods and services that will simplify access to the international market. One of very important role of the Chamber is provision of information, education and training to the staff in companies through various seminars, specialized courses, lectures organized by the technical and professional services of the Chamber.

The Chamber of Commerce has 16 associations, among which is the Association of Chemical, Pharmaceutical and Rubber Industry and Mines and Nonmetal Industry. The Chamber has also 5 Boards, one of which deals with environmental protection and sustainable development issues.

6.1.2.1. Association of chemical, pharmaceutical and rubber industry and non-metal industry

Association of producers of the plant protection products is a part of Association of chemical, pharmaceutical and rubber industry and non-metal industry within the Serbian Chamber of Commerce. Association represents its members through Serbian Chamber of Commerce in preparation of legislations as well as for EU and World Trade Organization (WTO) accession. Association also cooperates with scientific institutes in policy and strategy preparation.

Following producers of plant protection products are members of Association: GALENIKA-FITOFARMACIJA a.d., Belgrade, DELTA AGRAR – DELTA AGROHEMIJA, Belgrade, HEMOVET, Novi Sad, CHEMICAL AGROSAVA d.o.o, Belgrade, ZORKA ZAŠTITA BILjA, Šabac, ZORKA MINERALNA ĐUBRIVA, Šabac, AGROVOJVODINA KOMERCSERVIS d.o.o., Subotica, VETERINARSKI ZAVOD „SUBOTICA" a.d., Subotica as member of VIKTORIJA GROUP, Belgrade, JUGO-HEM, Leskovac, ŽUPA, Kruševac and FARMAKOM, Šabac. CHEMICAL AGROSAVA, HEMOVET i DELTA AGROHEMIJA (plants allocated from their headquarters in Šimanovci, Bački Petrovac and Zrenjanin).

6.1.3 Professional Associations

6.1.3.1 Serbian Chemical Society

The Serbian Chemical Society is one of the oldest scientific association in Europe and tenth oldest in the world, founded in Belgrade in 1897. There are over 1000 chemists, technologists and metallurgists within this Society who are employed in the industry, scientific-research institutes, universities, schools, quality control and biochemistry laboratories. The Association mainly deal with scientific and research work, organization of scientific gatherings and publishing internationally-recognized magazine «Journal of the Serbian Chemical Society», as well as «Chemical Review». The Serbian Chemical Society is member of European Association for Chemical and Molecular Sciences (EuCheMS) and International Union of Pure and Applied Chemistry (IUPAC) so it participates in development of chemical disciplines in EU.

6.1.3.2 Serbian Association of Chemists and Chemical Engineers (SHTS)

The SHTS was established in 1963 as the professional society of chemists and chemical engineers. SHTS is one of professional associations incorporated into the non-governmental and non-profit Society of Engineers and Technicians of Serbia (SITS). SHTS was initially created to:

- enhance the development of the chemical industry in Serbia and the application of chemical technologies in allied industries through the exchange of experiences between professionals;
- promote the progress of chemistry, chemical technology and chemical engineering in Serbia through the organizing of national and international symposia, conferences, seminars, courses and workshops;
- develop regular publishing activity having a task to popularize the achievements in the area;
- take care of the professional knowledge of its members in all spheres of chemistry, chemical technology and chemical engineering and also to verify chemical process and equipment design by issuance of certain certificates;
- establish connection with international expert and professional institutions and associations, which are active in the field of chemistry and chemical engineering;

Nowadays, SHTS deals with a larger variety of tasks and duties, including:

- initiation and/or coordination of research and development projects of wider national interest;
- professional assistance in dealing with the quality management, as well as environmental protection and occupational safety issues;
- professional services concerning visual modeling of management systems;
- preparation and maintaining of presentations of national chemical, oil and rubber industry on the Internet;
- preparation of national production and trade analysis for chemical, oil and rubber industry;
- active participation in different national and international events concerning issues relevant to the chemical and allied industries.

Professional work within SHTS is carried out through following Boards and groups: Board for Scientific and Professional Events Organization, Board for Publishing Activities, Board for Research and Development Activities, Group for Consulting Services concerning Quality System introduction in Labs – AcroLab; Group for Consulting Services concerning Quality System Introduction in accordance with requirements of ISO 9000 - QLab, Group for Environmental Protection System Development – EMC, including Responsible Care; Group for visual modeling of management systems in the process industry – VizMod.

At the beginning of 2000, SHTS established the Association of Accredited Laboratories as an independent and professional association of laboratories accredited in conformity with the quality system.

Responsible Care is chemical industry voluntary action program formed in aim:

1. to improve chemical industry performances in the health, safety and environmental protection sectors at the global level through a responsible behavior going beyond just meeting the regulation;
2. to communicate this improvement and respond public concerns, resulting in a better public perception of the industry and a better capacity to influence future regulations.

Responsible Care is worldwide voluntary chemical industry's commitment to continual improvement in all aspects of health, safety and environment performance as well as increased safeness of workers in the chemical industry and of the public, in general.

National chemical industry programs are responsible for the detailed implementation of Responsible Care in each country. Each national Responsible Care program includes 8 basic features. The existing RC structure has been developed systematically. The last feature – verification – was introduced in 1996 by Decision of the International Council of Chemical Associations-ICCA, which supervises the Responsible Care. Individual countries' programs are in different stages of development and have different priorities.

Regional «Responsible Care» programs, as European Federation of the Chemical Industries – CEFIC, assist in the cross-fertilization of ideas and best practice.

The mandatory implementation of basic principles of «Responsible Care» programs represents a condition for membership in national and international program, representing a strong program towards the sustainable development. In the long term, the credibility of RC ethic will depend on the actual performance of the chemical industry and the visibility of the progress achieved. Performance indicators are an important element to track and communicate such progress. Responsible Care is a broad commitment and verification has the goal to confirm individual rules in practice, management systems and other activities and to use, for those purposes, internationally recognized schemes and standards, which are consistent with the Responsible Care mission: EMAC and ISO 14000.

6.1.3.3 Serbian Medical Society - Section for toxicology

Serbian Medical Society is public organization consisting of doctors of medicine and doctors of dental medicine (Physician) with an aim to improve human health protection, to provide implementation of new medical achievements, to work on scientific research development as well as to propose measures for improvement of health protection system and medical services in the Republic of Serbia. Members of the Society are Vojvodina Medical Society, Kosovo and Metohija Medical Society and Academy of Medical Science. In order to achieve goals of the Society, there are specific sections within it, in the medicine and dental medicine field.

Toxicology section of the Serbian Medical Society consists of specialists who deal with chemicals influence on human health. Meetings of the section have been organized several times a year, while every fourth year Congress of toxicologist is organized.

6.1.3.4 Serbian Pharmaceutical Society - Section for toxicological chemistry

Section for toxicology of Serbian Pharmaceutical Society was established as association of experts in toxicological chemistry. Basics activity is improvement of this area, organization of scientific workshops, courses, etc. Serbian Pharmaceutical Society publishes scientific-technical journals and books in this area.

6.1.3.5 Sekopak

Sekopak is a not-for-profit organization funded in 2006 by Serbian industry. It is dealing with packaging waste management. Sekopak is supporting practical solutions to be implemented in the sphere of minimizing influence packaging and packaging waste has on the environment. Sekopak is supporting implementation of new legislation, which regulates packaging waste in accordance with EU Directives.

Goals of Sekopak are as follows:

- Cooperation and partnership between the industry and government authorties.
- Adoption and implementation of legislations on packaging and packaging waste according to European Parliament and Council Directive 94/62/EC on packaging and packaging waste of 20 December 1994.
- Establishing efficient and economical integrated system for packaging and packaging waste management (for all kinds of packaging waste: glass, paper, metal, plastics) from all industrial sectors, therefore chemicals industry.
- Use of current municipal capacities through including the local self-government units.
- Use of experience and knowledge from other European countries on best environmental practice.

6.1.4 Workers Associations

The Ministry of Labor and Social Policy performs registration of unions. The register is kept electronically, and may be accessed at request. Serbia has great number of professional trade unions among which there is the association of workers of the chemical industry. In the Trade Union Confederation «Nezavisnost», there is a chemical, non-metals, energy and mining workers union. In the Association of Free and Independent Trade Unions (ASNS), there is a chemical and nonmetal industry branch trade union. There is an independent union of workers of the power and petrochemical industry in Serbia. The union performs actions aimed at improvement of financial status of workers, but also those activities concerning improvement of occupational safety and health, i.e. working condition improvement.

6.1.5 Non-Governmental Environmental Organizations

The overview of non-governmental environmental organizations is in the Chapter 11.

6.1.6 Consumer Protection Association

(Source: National Program for Consumer Protection in Serbia for the period 2007-2012)

Development of independent non-governmental organizations of consumers in Serbia has long tradition, but still there is no necessary infrastructure to protect rights and interests of consumers. In Serbia currently there are 57 registered non-governmental consumer organizations, based on the register in the line Ministry (Ministry of Trade and Services). Relatively numerous organizations and insufficient coordination of their activities, lack of joint actions of all non-governmental consumer organizations in Serbia, result in their weak overall local influence while already insufficient funds are not used in a rational way. There is lack of clarity in terms of identification of a single national representative association of consumers in Serbia that would have full legitimacy to act as national representative in international organization and negotiator when there is a possibility to access international special-purpose funds is extremely visible. National Organization for Consumer Protection is established in 2005 as an umbrella organization consisting of 32 national consumer associations. There is also Serbian Associations of Consumers with 6 members and Union of Serbian Consumer Associations registered but there are no data on its members.

Considering the fact that the main criterion is that consumer associations exclusively promote and protect interests of consumers, they should be separated from other non-governmental organizations

and other citizens' associations. Associations of consumers are facing the issue of lack of funds, especially from the budget, allocated for projects and activities of the consumer associations, so in majority of organizations members are volunteering. However, in order to fulfill consumers' right on health environment and to rise awareness with regard to environment as a principle of prevention and precaution, it is necessary to engage the public and consumer organizations because they represent very important target group which can have influence on life quality improvement and furthermore, on environmental protection and sustainable development.

Product safety, including also safety of chemical products on the market, represents an area requiring permanent involvement of various organizations and institutions responsible for consumer protection. A safe product is any product that, under regular conditions of use or the use that can be envisaged, including duration and, as appropriate, putting into operation, installation and maintenance requirement, does not present risks or presents just minimum risk corresponding to the product use and risks considered to be acceptable and in conformity with high-level of safety and protection of health taking into consideration particularly the following: product characteristics, impact to other products, product presentation and risk consumer categories. The Draft National Program for Consumer Protection in Serbia recommends formation of the Commission for general safety of products in conformity with guidance on general product safety. The Commission should consist of staff from various ministries and inspections, standardization body, representatives of the Chamber of Commerce and consumer protection associations. Adopting of the Law on Products Safety will contribute to the better quality of products on the market.

Environmental protection problems are more and more highlighted and local government authorities, industry and the community engagement is needed. In order to protect environment in accordance with adopted resolution on global level, it is necessary to engage consumers because they represent very important target group which can have influence on life quality improvement and furthermore, on environmental protection and sustainable development. Rising awareness with regard to environment as well as principle on prevention and precaution are very important from the consumer protection aspect, so the role of consumer organizations in the process of environmental protection is irreplaceable.

6.1.7 Cleaner Production Centre

Cleaner Production Centre is established on the Faculty of Technology and Metallurgy in Belgrade, within tree years project "Establishment and operation of a national Cleaner Production Centre in Serbia" financed by UNIDO and with Slovenia and Austria donation. Cleaner Production Centre has an aim not only to promote and introduce cleaner production system in plants, but also to become actual Government policy.

Cleaner production represents application of the comprehensive preventive environmental protection strategy on production processes, products and services in order to increase total efficacy and reduce risks to human health and the environment.

For production processes, cleaner production includes more efficient use of raw materials and energy, removal of toxic and dangerous substances as well as reduction of all toxic emissions and wastes at the source.

For products, cleaner production tends to minimize impacts to environment and human health through life cycle of the product, starting from exploitation of raw materials, processing, consumption to its final disposal.

Ministry of Environment and Spatial Planning and Faculty for Technology and Metallurgy prepared Draft Strategy for Introducing Cleaner Production in the Republic of Serbia. The Strategy for Cleaner Production elaborates strategic documents, in particular, Strategy for Sustainable

Development and Draft National Environmental Protection Program. The Strategy elaborates national concept for sustainable development through cleaner production implementation.

One of the activities of the Cleaner Production Centre is introducing of business model of Chemical leasing into the companies in Serbia. One of the possible ways to achieve SAICM goals in practice, as it was promoted in the International Conference on Chemicals Management (Dubai, 2006), is introduction of this business model.

The concept of Chemical Leasing is based on the preventive idea of Cleaner Production. Chemical Leasing is a service-oriented business model that shifts the focus from increasing sales volume of chemicals towards a value-added approach. The producer mainly sells the functions performed by the chemical and functional units are the main basis for payment. It aims at increasing the efficient use of chemicals while reducing the risks of chemicals and protecting human health. This project is in the initial phase. Capacity building in Serbia is also planned through this project.

6.2 Review of Expertise in the Industrial, Academic and NGO Sectors

Table 6.A: Review of Expertise in the Industrial, Academic and NGO Sectors

Field of Expertise	Industry	Universities	Scientific and Research Institutes	Environmental NGOs / Consumer Associations	Workers Associations	Professional Organizations
Data Collection	++	++	++	+	-	+
Testing of Chemicals	++	++	+++	-	-	-
Risk Assessment	-	+	+	-	-	-
Risk Reduction	+	+	++	+	+	-
Involvement in Drafting Strategic and Legal Document	++	+	++	+	+	+
Training and Education	+	+++	++	+	+	++
Research on Alternatives	+	++	+++	-	-	+
Monitoring of Chemicals in Environmental Media	+	++	++	-	-	-
Enforcement of Regulation	+	-	-	+	+	+
Information to Workers	++	-	-	+	++	+
Information to Public	+	+	+	++	+	+

6.3 Comments and Recommendations

The policy of the Government of the Republic of Serbia on involvement of representatives of the industry in the decision-making process concerning chemicals management is because representatives of the industry are partners on the process. This Government policy is based on the Serbian orientation to establish accession with EU and harmonize local regulations with EU

Regulations. Therefore, according to the Rulebook of the Government of the Republic of Serbia governmental bodies are obliged to organize public discussion when adopting regulations that significantly affect some areas. Moreover, in process of making some decisions concerning chemicals management (decision on prohibition or restriction of use of chemicals, Environmental Impact Analysis for some plants, etc.), it is obligatory to involve representatives of the industry. However, often happens that the industry is not interested in providing comments when some strategic documents and laws are drafted, not recognizing its role or importance of adoption of those documents Sometimes, the industry is involved in the drafting process from the very start so reactions of the industry are more appropriate. Aimed at maximum utilization of human resource capacities within the industry, there is need to provide training concerning their new obligations inherent in new regulations. The training should be organized in such a way to ensure its continuity. Methods of implementation of trainings of the industry representatives should be defined. Considering numerous new regulations currently being drafted, limited capacities of the industry and number of trainers delivering trainings, firstly an adequate training plan is needed (considering multi-sectoral approach to chemicals management) that will prepare the industry for the enforcement of new regulations efficiently.

When planning and implementing trainings, capacities of small- and medium-sized enterprises needing a different approach should be considered.

Since voluntary initiatives launched by the industry has been proved as extremely successful in achieving safe chemicals management, there is need to initiate inclusion of the chemical industry into the global program «Responsible Care». One of the very first activities would be for one of the professional chemical associations in Serbia to launch procedure for Serbian membership into the International Council of Chemical Associations (ICCA) supervising «Responsible Care» Program.

NGO sector training and development represents a step forward necessary to implement in order to achieve sustainable support system in implementation of the national policy concerning health and environmental protection from dangerous effects of chemicals. The training and development should be considered not as a unilateral orientation to creation of a parallel system and continuous pressure by NGOs to competent governmental bodies, but as establishment of partnership between two parties aimed at chemicals management enhancing. Work of the governmental bodies and NGO sector in the field of health and environmental protection need to be harmonized and coordinated everyday work.

Usually NGOs implement periodic and detached activities, due to unstable finance sources. Therefore, NGOs capacities, and particularly capacities of consumer protection associations should be strengthened to be able to implement activities aimed at informing the public on risks from chemicals to the human health and the environment. The objective of NGOs activities would be to encourage citizens to have more responsible behavior toward the use of dangerous chemicals and dangerous waste management in sustainable manner.

The Law on Environmental Protection from 2004 regulates the obligation of the Environmental Protection Agency to produce an integral polluter cadastre. The Agency shall make some data contained in the cadastre available (in accordance with the Protocol on Pollutant Release and Transfer Registers) to a broad public, ensuring in the first place that the records are accessible through the Internet free of charge. In this manner, information will be more accessible to the public so that the public will be able to react more adequately.

Since journalists from all media have an important role in public informing, they need to be involved in training programs.

VII CHAPTER: INTER-MINISTERIAL COMMISSIONS AND COORDINATING MECHANISMS

7.1 Inter-Ministerial Commissions and Coordinating Mechanisms
7.2 Comments and Recommendations

7.1 Inter-Ministerial Commissions and Coordinating Mechanisms

Table 7.A provides an overview of any relevant mechanisms for co-coordinating activities among relevant institutions.

Table 7.A: Overview of Inter-Ministerial Commissions and Co-coordinating Mechanisms

Name of Mechanism	Commission of the Republic of Serbia for implementation of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and their Destruction					
Responsibilities / Legislative Mandate / Objective	Commission of the Republic of Serbia for the implementation of the Convention monitors and coordinates activities concerning enforcement of international obligations of Serbia and member states. In conformity with the Law on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction («Official Gazette of SM», No. 44/2005), the Government of the Republic of Serbia establishes this Commission. The Commission submits reports to Government of the RS on implementation of this Law at least semi-annually.					
Secretariat	Ministry of Foreign Affairs					
Members						
The Council of Ministers appoints members of the Commission at proposal of the competent bodies dealing with foreign affairs and defense and bodies in charge of chemicals management, health, interiors and custom affairs.						
Name and Surname	**Name of Institution**	**Address**	**Position**	**Telephone**	**Fax**	
Bratislav Djordjevic	Ministry of Foreign Affairs	24, Kneza Milosa Street Belgrade	a.d. in charge of NATO and defense issues	3068594	3612534	Chairperson
Predrag Manojlovic	Organization for Prohibition of Chemical Weapons (OPCW)	Hague	Advisor in the Serbian Embassy in Hague, deputy of a permanent representative of the Republic of Serbia to the Organization for the Prohibition of Chemical Weapons (OPCW)	+31703636800	+31703602421	Deputy Chairperson
Colonel Zdravko Samardzic	Human Resource Training Center for the Serbian Army	Krusevac	Center Commander	037 416060	037 41631	member
Captain Stevica Prcic	Ministry of Defense - Department for Defense Policy, Verification Center			3201553	3006332	deputy member
Stevo Tubic	Ministry of Environment and Spatial Planning - Department for accident	91, Ivana Ribara Street	Chief	3132571	3132574	member

	management					
Valentina Radjenovic	Ministry of Environment and Spatial Planning - Department for Chemicals	91, Ivana Ribara Street	Advisor	2158759	2158793	deputy member
Dusanka Vukovic	Ministry of Finance - Custom Administration - Department for Custom Tariffs	155a, Boulevard Avnoja	Chief of the Sector for Analysis and Classification of Products for reproduction and general consumption	2699846	2699011	member
Vesna Vracar	Ministry of Finance - Custom Administration - Department for Custom Tariffs	155a, Boulevard Avnoja	Advisor at the Sector for Analysis and Classification of Products for reproduction and general consumption	3117430	2699011	deputy member
Predrag Maric	Ministry of Interior Affairs – Sector for Protection and Rescuing	104, Boulevard Avnoja	Assistant Minister, chief of department for fire protection and rescuing	361 43 04 361 65 69	3008179 3008180	member
Dragan Stojanovic	Ministry of Interior Affairs – Sector for Protection and Rescuing	104, Boulevard Avnoja	Deputy chief of department for fire protection and rescuing	361 43 04 361 65 69	3008179 3008180	deputy member
Ana Blagojevic	Ministry of Economy and regional development	10, Vlajkoviceva Street	Deputy Minister	334 60 67 324 49 08	333 41 82	member
Ivan Arandjelovic	Ministry of Economy and regional development	10, Vlajkoviceva	Chief	333 41 28	333 41 82	deputy member
Vasilije Antic, PhD	Ministry of Health	22-26, Nemanjina Street	Assistant minister	3616257	2656548	member
Dragana Kosic	Ministry of Health	22-26, Nemanjina Street	Advisor, inspector	3112381	3117550	deputy member
Name of Mechanism		Commission on Poisons - Expert body of the Ministry of Environmental Protection				
Responsibilities / Legislative Mandate / Objective		In conformity with Article 23 of the Law on the Governmental Administration («Official Gazette of RS», No. 79/2005); Article 14 of the Law on Ministries («Official Gazette of RS», No. 19/2004 and 84/2004), with reference to Articles 4, 7 and Article 11 of the Law on Production and Trade of Poisons («Official Gazette of RS», No. 15/95, 28/96 and 37/2002), the Minister of Environmental Protection makes a Decision on establishment of the Commission on Poisons. A Commission task is to provide expert's opinion and evaluation in terms of determining poisons that can endanger human life and health and the environment aimed at placing of those poisons on the List of Poisons whose Production, Trading and Use are Prohibited. The Commission provides also expert's opinion and evaluation on classification of poisons into groups and toxicological assessment and efficiency estimation in order to place those poisons in the List on Poisons Classified into Groups. At a request of the Minister, it provides expert's opinions and evaluation concerning implementation of the Law on Production and Trade of Poisons.				
Secretariat		Ministry of Environment and Spatial Planning				
Members						
Ministry of Health suggested that it would be needed to designate dr Zoran Segrt for the member of the Commission of Poisons on behalf of the National Poison Control Centre having in mind importance of this institution						
Name and	**Name of**	**Address**	**Position**	**Telephone**	**Fax**	

Surname	Institution					
Prof Slavoljub Vitorovic, PhD	University of Agriculture	6, Nemanjina Street Zemun		3161496	193659	chairperson
Prof Vesna Matovic, PhD	University of Pharmacy - Institute for Toxicological Chemistry	450, Vojvode Stepe Street		3951251	3972840	deputy chairperson
Prof. Biljana Antonijevic, PhD	University of Pharmacy - Institute for Toxicological Chemistry	450, Vojvode Stepe Street		3951250	3972840	member
Marina Nevescanin	Security Information Agency - Institute of Security	Kraljica Ane Street				member
Prof Dragan Joksovic, PhD	Military Medical Academy	17, Crnotravska Street		3672187	3672187	member
Snezana Savcic - Petric	Ministry of Agriculture, Forestry and Water Management	1, Omladinskih Brigada Street		2600081	2604576	member
Prof. Milanka Jezdimirovic, PhD	University of Veterinary Medicine, Belgrade	18, Boulevard oslobodjenja		3615436 685052		member
Ljiljana Raus	Ministry of Interior Affairs	101, Kneza Milosa		3062500 ext. 2026	3617179	member
Ass. Prof. Suren Husinec, PhD	Institute for Chemistry, Technology and Metallurgy - Center for Chemistry	12, Njegoseva Street		3236293	3235255	member
Milena Jovasevic - Stojanovic, PhD	Institute of Nuclear Sciences - Vinca	12-14 Mike Alasa Street		2458222	3442420	member
Dragan Knezevic	Institute for disinfection, desensitization and deracination	16, Trebevicka Street		3557034	3554499	member
Prof. Mario Andjelkovic, PhD	Biological Research Institute «Dr Sinisa Stankovic»	142, 29th November Street		764847	761433	member
Nesko Neskovic	Serbia Agricultural Research Institute - Center for Pesticides	2, Zeleni Venac Street		180509		member
Olivera Pavicevic	Ministry of Environment and Spatial Planning	91, Ivana Ribara Street		2158759	2158793	secretary
Name of Mechanism		Serbian Commission for Pesticides				

Responsibilities / Legislative Mandate / Objective	The Commission reviews applications submitted by producers of pesticides and authorized agents of foreign manufacturers and their applications for testing pesticides and reports of authorized institutions for pesticides testing on performed testing of chemical and physical properties and biological effectiveness (in order to get a permanent or temporary license for pesticide trading) and expertise compliancy in trading in pesticides in terms of resistance and recent data on effect to the human health, useful organisms and the environment for applications defined in the previous permanent license for trading in pesticides (renewal of permits for pesticides trading). The Commission proposes to the Ministry of Agriculture, Forestry and Water Management issuing of permanent or temporary licenses for pesticides trading. The Commission proposes to the Ministry of Agriculture, Forestry and Water Management to determine MRLs for pesticide in plants and food of plant origin, animal feed of plant origin and food of animal origin as consequence of application of pesticides for plant protection. The Commission performs also other activities and tasks inherent in the Law on Plant Protection ("Official Gazette of FRY", No. 24/96, 26/96 and 101/05-second version) adopted on the ground of this Law. The Commission performs also other activities entrusted by the Ministry of the Agriculture, Forestry and Water Management.
Secretariat	Ministry of the Agriculture, Forestry and Water Management

Members

	Name and Surname	Name of Institution	Address	Position	Telephone	fax	
GROUP FOR EVALUATION OF CHEMICAL AND PHYSICAL PROPERTIES OF PESTICIDES AND SETTING PROPOSALS FOR MRLs for PESTICIDES IN PLANTS AND PRODUCTS OF PLANT ORIGIN, LIVESTOCK FEED AND IN PRODUCTS AS CONSEQUENCE OF APPLICATIONOF PESTICIDES IN PLANT PROTECTION	Slavoljub Vitorovic, PhD	University of Agriculture; Institute for Plant Protection and Food Products	Zemun	Professor teaching agriculture toxicology			member
	Milica Mojasevic, PhD	University of Agriculture	Zemun	Professor teaching specific phytopharmacy			member
	Sanja Lazic, PhD	University of Agriculture, Department for Plant Protection and Environment „Dr Pavle Vukasovic"	Novi Sad	Professor teaching general phytopharmacy, phytopharmacist - analyst			member
	Mira Pucarevic, PhD	Institute of Field and Vegetable Crops	Novi Sad	Research associate, analyst			member
GROUP FOR EVALUATION OF PESTICIDES EFFECTIVENESS IN AGRICULTURE AND FORESTRY	Dusanka Indjic, PhD	University of Agriculture; Department for Plant Protection and Environment „Dr Pavle Vukasovic"	Novi Sad	Professor teaching specific phytopharmacy, phytopharmacist - zoocides			Chairperson of the Commission for zoocides evaluation
	Sobodan Krnjajic, M.Sc	Institute for Plant Protection and Environment		Research associate, phytopharmacist - zoocides			member, for zoocides evaluation
	Radivoje Jevtic, PhD	Institute of Field and Vegetable Crops	Novi Sad	Research associate, phytopatologist			member in charge of fungicide evaluation
	Petar Vuksa, PhD	University of Agriculture; Department for Plant Protection and Food Products	Zemun	Professor teaching plant protection technology			member in charge of fungicide evaluation

	Jelica Balez, PhD	University of Agriculture; Department for Plant Protection and Environment „Dr Pavle Vukasovic“	Novi Sad	Professor teaching disease forecast in plant protection, bacterial blight of plants and mycosis in fruit culture and wine grape, phytopatologist and bacteriologist			member, in charge of bactericide evaluation
	Ljiljana Radivojevic, M.Sc	Center for Pesticides and the Environmental Protection		Research associate, phytopharmacist - herbicides			member, in charge of evaluation of herbicide and growth regulator
	Ibrahim Elezovic, PhD	University of Agriculture; Department for Plant Protection and Food Products	Zemun	Professor teaching specific phytopharmacy, phytopharmacist - herbicides			member, in charge of evaluation of herbicide and growth regulator
	Milka Glavendekic, PhD	University of Forestry	Belgrade	Professor teaching forest entomology, entomologist			member, in charge of evaluation of pesticides applied in forestry
GROUP FOR CONTROL OF GUIDELINE PROPOSLS FOR APPLICATION COCENNRING SMPTHOMS AND SIGNS OF POISONING, FIRST AID AND TREATMENT	Gordana Babic, PhD	Military Medical Academy, Toxicological clinic	Belgrade	Clinical toxicologist			member
	Snezana Jelicic	Ministry of Agriculture, Forestry and Water Management	Belgrade				secretary
	Mario Injac, PhD	Chemical Agrosava Ltd.	Belgrade	Chief of department for development of insecticide and fungicide			Representative of the business association of pesticide producers „Plant Protection“
	Dusica Bojovic	BASF – Yugoslavia Ltd.	Belgrade	Pesticide registration			Representative of the business association of authorized agents of foreign companies producers of pesticides SECPA
Name of Mechanism	Serbian Commission for Evaluation of Programs concerning Plant Protection						
Responsibilities / Legislative Mandate / Objective	The Commission selects and evaluates registered programs concerning the plant protection in conformity with the following: Proposed aspects (from 1 to 6) and thematic framework from the Public Competition for program application; Program application elements – defined in general and specific conditions; Criteria for evaluation of planned financial resources; The Commission approves amendments to existing projects (from 2004 and 2005) concerning plant protection within the contracted and by-the-program envisaged funds; The Commission approves to increase funds to existing - active projects, but in line with						

	criteria for 2006 projects; The Commission monitors project implementation (of 2004 and 2005 projects) and 2006 projects until the project completion professionally as well as financially so entitled to ask for accounts and reports; The Commission provides opinion to the Minister concerning submitted reports (professional and financial), so it decides with approval or suggestions made by the Minister whether the report is approved or not.
Secretariat	Ministry of Agriculture, Forestry and Water Management

Members

Name and Surname	Name of Institution	Address	Position	Telephone	Fax	
Stevan Masirevic, PhD	Directorate for Plant Protection		Director			permanent member
Mirjana Koprivica, M.Sc	Directorate for Plant Protection – Department for plant health and plant quarantine		Chief of Department			permanent member
Snezana Savcic - Petric	Directorate for Plant Protection – Department for Pesticides and Fertilizers		Chief of Department			permanent member
Jelena Levic	Maize Research Institute	Zemun Polje				member, crop mycosis
Radivoje Jevtic, PhD	Institute of Field and Vegetable Crops	Novi Sad				member, crop mycosis
Dragica Ivanovic, PhD	Maize Research Institute	Zemun Polje				member, in charge of seed breeding
Milan Radivojevic, PhD	University of Agriculture	Zemun				member, in charge of nematology
Goran Malica, M.Sc	Institute of Field and Vegetable Crops	Novi Sad				member, in charge of herbology and herbicides
Snezana Tanaskovic, M.Sc	University of Agronomy	Cacak				member, in charge of entomology in fruit culture
Olivera Petrovic, PhD	University of Agriculture	Zemun				member, in charge of entomology
Miroslav Ivanovic, PhD						member, in charge of mycosis in vegetable culture
Aleksa Obradovic, PhD	University of Agriculture	Zemun				member, in charge of procaryotes in vegetable culture, crop production and fruit culture
Tatjana Knezevic., M.Sc	University of Agriculture	Novi Sad				member, in charge of procaryotes in vegetable culture, crop

						production and fruit culture
Ruza Petrina	Agronomist	Tavankut				member, in charge of pest control
Marija Milenkovic	Farming Chemicals Shop „Glorija“	Brestovik				member, in charge of pest control
Branka Krstic, PhD	University of Agriculture	Zemun				member, in charge of virusology
Aleksandra Bulajic, M.Sc	University of Agriculture	Zemun				member, in charge of mycosis in fruit culture and ornamental plants
Verko Kacarevic	Arboretum „Kacarevic“	Vinca				member, in charge of pest control
Gorica Vukovic, M.Sc	Public Health Institute of the City of Belgrade	Belgrade				member, in charge of residues and physical and chemical properties of pesticides
Mihajlo Ristic, PhD	Institute for Medicinal Plant research „Dr Josif Pancic“	Belgrade				member, in charge of residues and physical and chemical properties of pesticides

Name of Mechanism	Coordination Committee of the Republic of Serbia for POPs Project Implementation
Responsibilities / Legislative Mandate / Objective	A task of the Coordination Committee is to manage the implementation of the POPs Project through coordination of realization of projects tasks / components, supervision over the POPs Project implementation and approving reports on work of the Project unit. Members of the Coordination Committee are assigned with individual tasks such as to get information and data from competent bodies and institutions, or institutions they represent, to ensure harmonization of the Stockholm Convention National Implementation Plan on persistent organic pollutants with strategic documents and regulations of those bodies as well as to ensure fulfillment of the obligations as referred to in the Stockholm Convention on Persistent Organic Pollutants by those institutions.
Secretariat	POPs project office

Members

Ministry of Environment and Spatial Planning aimed at implementation of UNEP/GEF Project «Enabling activities for the development of the National Plan for Implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs)» No. GF/4030-03-15 (hereinafter: «POPs Project») makes Decision on formation of the Coordination committee.

Name and Surname	Name of Institution	Address	Position	Telephone	Fax	
Aleksandar Vesic	Ministry of Environment and Spatial Planning	1, Omladinskih Brigada Street Belgrade	Assistant Minister	3131357	3131394	Chairperson
Valentina Radjenovic	Ministry of Environment and Spatial Planning	1, Omladinskih Brigada Street Belgrade	Advisor	2160956	2158793	Deputy Chairperson
Jelena Simovic	Ministry of Mining and Energy			3346755		member
Milica Mojasevic,	Serbian Chemical			2196131 2615315	3168260	member

PhD	Society			ext. 398		
Ljiljana Tanasijevic	Serbian Chamber of Commerce			3235423		member
Nebojsa Redzic, M.Sc	Environmental Protection Agency			2160956		member
Snezana Savcic - Petric	Ministry of Agriculture, Forestry and Water Management, Directorate for Plant Protection			2600081	2604576	member
Chief Physician Snezana Matic - Besarabic	Ministry of Health			2078627	3235080	member
Radovan Medic	Ministry of Finance			3614838	3614838	member

7.2 Comments and Recommendations

Although there are various commissions performing specific activities envisaged by various regulations, the main conclusion is that there is a need to form an inter-ministerial body to coordinate development of strategies and plans concerning chemicals management as well as of laws and by-law regulations needed for implementation of the afore-said papers. Representatives of all governmental bodies in charge of different aspects of chemicals management, representatives of scientific and research sector, NGOs and representative of professional association should participate in work of this body. There is also a need to form a coordination commission, as a sub-group, to coordinate work of different inspections aimed at information exchange. All relevant inspectors of the republic, autonomous region and local level should be engaged.

Ministry of Environment and Spatial Planning should initiate formation of this inter-ministerial body and secretariat. In order to be able to perform this function, the Ministry of Environment and Spatial Planning needs to ensure human resource and financial resources. Outcomes should be as follows: setting of detailed administrative procedures and electronic network for information exchange among various competent bodies that will be an integral part of the chemicals management information system.

Besides representatives of the governmental bodies (environmental protection, health, agriculture and interiors) in the work of the Commission on Poisons participate also representatives of scientific and research sector. Some of the Commission members are representatives of authorized legal entities in charge of providing toxicological evaluation, which indicates the fact that the administrative procedure concerning decision-making process on poison classification into groups is not separated from toxicological evaluation. The Ministry of Environment and Spatial Planning is a secretariat to this Commission and it should provide for work performed by the commission members, which is currently not the case.

It should be also stressed that although there is a need to have a commission in charge of setting maximum limits for pesticide residue in food, such a commission within the Ministry of Health does not exist.

Representative of the Ministry of Infrastructure, who is responsible for the risk management in the area of transport of dangerous goods, is not member of the Commissions listed in the Chapter 7.1.

The new Law on Biocides envisages an example of establishment of a commission with an adequate separation of administrative decision-making procedure and expert part concerning development of the study on risk assessment. Due to the lack of adequate professional staff within the governmental bodies, concerning administrative decision-making process there is a need to outsource experts in the area of toxicology, eco-toxicology, pharmacy, veterinary medicine, chemistry, medicine and other natural sciences to work in the Commission to make decisions on placing biocides on the market. According to the Draft Law on Biocides, entities producing or placing biocides on the market, persons engaged in development and evaluation of technical dossiers on biocides cannot be members of the Commission (each member of the Commission shall sign a statement on conflict of interest, as it is the practice in EU countries). Outsourcing of experts to work in the commission is to be paid from fees for issuing permits for placement of biocides on the market. However, it should be stressed that the employees in the government administration should gradually take over activities entrusted to the Commission, which require training for civil servant to perform these activities.

One of the specific recommendations relates to the regulations for import and export of asbestos. External trade of asbestos is regulated only by the Law on External Trade („Official Gazette of RS“, No. 101/2005 and Decision on defining goods whose export, import i.e. trading is subject to special conditions („Official Gazette of RS“, No. 126/07). It needs to be defined how to regulate this issue, as well as an authorization for licenses issuing for import/export of asbestos in order to protect the environment.

It is necessary to define a mechanism for identification of chemicals as dual use goods and to establish intersectoral cooperation regarding this issue. Further to this, administrative capacities should be strengthen in this area.

VIII CHAPTER: DATA ACCESS AND USE

8.1 National Data Location
8.2 Procedure for Collecting and Disseminating National / Local Data
8.3 Availability of International Literature
8.4 Availability of International and Local Data Base
8.5 National Information Data Exchange Systems
8.6 Comments and Recommendations

8.1 National Data Location

Table 8.A: National Data Location

Type of Data	Location	Data Source	Who Has Access?	How to Gain Access	Format
Production Statistics	Serbian Statistical Authority (SSA)	Filled questionnaires by manufacturers submitted by the SSA based on the Statistical Research Plan and Program	public	At request or at the web-site: webrzs.statserb.sr.gov.yu	hard copy, soft copy, Document «Serbian Statistical Yearbook»
Export Statistics	MoF - Custom Administration and Serbian Statistical Authority	custom declarations, border inspection reports, export permits	public	at request, web-site www.fcs.yu webrzs.statserb.sr.gov.yu	hard copy, soft copy
Import Statistics	MoF - Custom Administration and Serbian Statistical Authority	custom declarations, border inspection reports, export permits	public	At request, web-site www.fcs.yu webrzs.statserb.sr.gov.yu	hard copy, soft copy
Chemical Use Statistics	No systematic monitoring of chemical use	-	-	-	-
Industrial Accidents Reports	Ministry of Labor and Social Policy/Department for Occupational Safety and Health/Occupational Safety Unit; Serbian Public Health Institute «Batut»; Ministry of Interior Affairs; Ministry of Environment and Spatial Planning; Mobile Eco-toxicological unit of the Public Health Institute of the City of Belgrade	Reports upon performed surveys	Restricted	at request	hard copy
Transport Accident Reports	Ministry of Infrastructure, Ministry of Interior Affairs, Ministry of Environment	Reports upon performed survey	Restricted	at request	hard copy

	and Spatial Planning				
Consignee of dangerous good consignment	Authorized persons from the Ministry of Infrastructure and PC Serbian Railways	permits, transporters' statistical data	Restricted	defined procedure	hard copy, soft copy
Consignor of dangerous good consignment	Authorized persons from the Ministry of Infrastructure and PC Serbian Railways	permits, transporters' statistical data	Restricted	defined procedure	hard copy, soft copy
Occupational Health Data (agricultural)	Ministry of Labor and Social Policy / Department for Occupational Safety and Health / Occupational Safety Unit; Serbian Public Health Institute «Batut»	Labor Inspection Report	Restricted	at request	hard copy
Occupational Health Data (industrial)	Ministry of Labor and Social Policy/Department for Occupational Safety and Health/Occupational Safety Unit; Serbian Public Health Institute «Batut»	Labor Inspection Report	Restricted	at request	hard copy
Poisoning Statistics	National Poison Control Center - Military Medical Academy (VMA)	Data on acute poisoning are based on data on patients at the Poison Control Center and on registered calls mainly by physicians and some citizens addressing the Center aimed at getting advices to help to poisoned person	Currently it is restricted, but there is a plan to publish number and structure of acute poisoning in 2007 in the Statistical Yearbook	at request	hard copy, soft copy
Pollutant Release and Transfer Register	Register at the Serbian Environmental Protection Agency/MESP is finished	-	-	-	-
Hazardous substances and Hazardous Waste Data	Ministry of Environment and Spatial Planning, Serbian Environmental Protection Agency, Serbian Recycling Agency, Custom Administration	Filled questionnaires by industries are submitted to the Ministry of Environment and Spatial Planning according to the Regulation on methodology for assessment of risks of chemical accidents and environmental	public	At request or at the web-site of the Ministry of Environment and Spatial Planning www.ekoserb.sr.gov.yu, Serbian Environmental Protection Agency www.sepa.sr.gov.yu and Recycling Agency www.reciklaza.sr.gov.yu	hard copy, some information can be released also in soft copy

		pollution through preparedness and measures regarding elimination of consequences,. Import/export permits, custom declaration			
Register of Pesticides	Directorate for Plant Protection/MAFWM	inventory	public	At request, web-site www.minpolj.sr.gov.yu	hard copy, soft copy
Register of Toxic Chemicals	Ministry of Environment and Spatial Planning	-	-	-	-
Inventory of Existing Chemicals	does not exist	-	-	-	-
Register of Imports/Exports	For poisons - Ministry of Environmental Protection For pesticides – MAFWM/ Directorate for Plant Protection	Export permits		At request and web-site www.minpolj.sr.gov.yu	hard copy, soft copy
Register of Producers	For poisons - Ministry of Environmental Protection For pesticides - MAFWM/ Directorate for Plant Protection For explosives - Ministry of Interior Affairs	List of registered manufacturers	Restricted	At request and web-site www.ekoserb.sr.gov.yu www.minpolj.sr.gov.yu	hard copy, soft copy
PIC Decisions	No PIC Decision for export, since the Rotterdam Convention has not been ratified yet, but there is PIC Decision for import - Ministry of Environmental Protection	List of PIC Decisions for import	Restricted	At request	hard copy, soft copy
Others					

8.2 Procedure for Collecting and Disseminating National / Local Data

Serbian Statistical Authority (SSA) prepares «Statistical Survey» annually and the Government of the Republic of Serbia adopts it. This document closely defines types of surveys to be performed in the next year and implementation methods. As of 1974, at the end of each year the SSA publishes the «Serbian Statistical Yearbook» containing data for the previous year. The Yearbook represents a comprehensive publication and contains basic social and economic data. The SSA publishes detailed results of all statistical analysis broken down by fields in its regular edition of ”Newsletter” as well as in other publication. Besides the data collected and processed by the Serbian Statistical Authority, the yearbook provides statistical data of other authorized bodies and organizations: National Bank of Serbia - Directorate for Clearing and Payment Operations, Ministry of Finance of the Republic of Serbia, Republic Hydrometeorology Service, Seismological service of the Republic of Serbia, Republic Geodetic Authority, Ministry of Justice, Ministry of Interior Affairs, National Employment Service, Pension and Disability Insurance Fund, Geographic Institute in Belgrade, Military Geographic Institute, Serbian Nature Protection Institute, etc. Serbian Statistical Yearbooks are published on the web-site of the Serbian Statistical Authority and as of 2004 the web-site is also in English (webrzs.statserb.sr.gov.yu).

Custom Administration within the Ministry of Finance publishes statistical newsletter on commodity exchange and transit annually and data are available on the web-site of the Custom Administration (www.fcs.yu). The IT Sector within the Custom Administration provides statistical data for competent governmental bodies, submitted upon request.

Establishment of the Informational System and Integral Cadastre of Polluters is defined in the Law on Environmental Protection ("Official Gazette of the Republic of Serbia", No. 135/04). In conformity with Article 74 of the Law, in order to have efficient identification, classification, processing, monitoring and recording of natural values and environmental management in Serbia, the environmental protection informational system is established and managed by the Serbian Environmental Protection Agency.
The informational system includes developing, classification, maintenance, presentation and distribution of numerical, descriptive and spatial databases on the following:

- environmental media quality;
- environmental monitoring;
- legislative, administrative and organizational strategic measures;
- scientific and technical information on planned prevention measures; and
- information exchange with other information systems, etc.

Its establishment ensures access also to other informational system and harmonization of all relevant information and data at the national and international level.

In conformity with Article 75 of the Law, the Serbian Environmental Protection Agency keeps an Integrated cadastre of polluters aimed at monitoring qualitative and quantitative changes in the environment and undertaking environmental protection measures. The cadastre is available on the Internet free of charge.

One of the elements of the environmental protection informational system is monitoring. All stakeholders dealing with the environmental protection system shall ensure continuous supervision and monitoring of the environmental protection status within their jurisdictions set by the Law. Monitoring is performed through systematic measurement, reviewing and evaluating indicators, state and environmental pollution including monitoring of natural factors, changes of the state and characteristics of the environment, covering also transborder monitoring as follows: monitoring of air, water, soil, forest, biodiversity, flora and fauna, climate elements, ozone layer, ionizating and non-ionizating radiation, noise, waste, early warning in case of accidents along with monitoring and evaluation of environmental pollution as well as obligations inherent in the international agreements. Governmental bodies, organization, bodies of the autonomous province and local self-government units, authorized institutions and polluters shall submit monitoring data to the Serbian Environmental Protection Agency in the proper manner.

8.3 Availability of International Literature

Table 8.B: Availability of International Literature

Literature	Location	Who Has Access?	How to Gain Access
Environmental Health Criteria Documents (WHO)	internet	unlimited	http://www.who.int/ipcs/publications/ehc/en/index.html
Health and Safety Guides (WHO)	internet	unlimited	http://www.inchem.org/pages/hsg.html
International Chemicals Safety Data Cards (IPCS/EC)	internet	unlimited	http://www.cdc.gov/niosh/ipcs/ipcscard.html
Decision Guidance Documents for PIC Chemicals (FAO/UNEP)	internet	unlimited	http://www.pic.int/en/ViewPage.asp?id=239

FAO/WHO Pesticides Safety Data Sheets	internet	unlimited	http://www.who.int/ipcs/publications/jmpr/pesticide_2005.pdf
Documents from the FAO /WHO Joint Meeting on Pesticide Residues	internet	unlimited	http://www.inchem.org/pages/jmpr.html
Material Safety Data Sheets (industry)	internet	unlimited	http://www.ilpi.com/msds/
Environmental Protection Agency (EPA), IRIS	internet	unlimited	http://www.epa.gov/iris/
International Agency for Research on Cancer (IARC)	internet	unlimited	http://www.iarc.fr/
Evaluation of certain food additives and contaminants (WHO/TRS)	internet	unlimited	http://www.inchem.org/documents/jecfa/jecmono/v45je07.htm
OECD Guidance for the Testing of Chemicals	internet	unlimited	http://www.oecd.org/document/22/0,2340,en_2649_34377_1916054_1_1_1_1,00.html
Good Laboratory Practice Principles	internet	unlimited	http://www.oecd.org/document/63/0,2340,en_2649_34381_2346175_1_1_1_1,00.html
Good Manufacturing Practice Principles	internet	unlimited	http://www.emea.eu.int/Inspections/GMPhome.html
Kobson (Consortium of Serbian Libraries for Integrated Procurement)	internet	unlimited	http://www.nbs.bg.ac.yu/kobson

Through the computer center of the Belgrade University all interested parties at faculties and university have direct access to the system Jobson (www.nbs.bg.ac.yu/kobson), Consortium of Serbian Libraries for Integrated Procurement, a new way of Serbian library organization created in 2001. The main objectives are joint procurement of international scientific information and shifting from hard to soft copies. Through the Jobson it is possible to access to electronic magazines (such as American Chemical Society, Cambridge University Press, HINARI, ScienceDirect, Springer-Link, Free Medical Journals, Blackwell, EBSCO), electronic books (such as PubMed, Springer-Link, HeinOnline), index basis (such as Medline, SciFinder, Web of Science). However, it is important to stress that the access is not restricted only to academic university network servers, but a user connect to the internet through commercial providers (such as eunet, sezam, ptt, etc.) if registered (registration is free-of-charge). The overall subscription system is financed entirely through the Ministry of Environment and Spatial Planning.

Within the Military Medical Academy there is the Institute for Medical Information and Documentation regularly receiving numerous magazines and has professional national and international literature in the areas of medicine, chemistry, toxicology, and other fields concerning chemicals management. Any legal entity or physical person can access the literature through prescribed procedure.

The Library at the University of Chemistry has great number of primary and secondary professional literature, Chemical Abstract, numerous magazines concerning chemistry, great collection of books and manuals.

Literature on pesticides submitted by the Directorate for Plant Protection of the Ministry of Agriculture, Forestry and Water Management, represents only part of the literature on pesticides available to the employees. Besides, the Directorate has great number of other publications (various aspects concerning pesticides, scientific and professional literature, international and national magazines concerning pesticides, etc.).

Table 8.B1: Literature on Pesticides
(Directorate for Plant Protection within the Ministry of Agriculture, Forestry and Water Management)

Literature	Location	Who Has Access?	How to Gain Access
Directives and Regulations by the Council and Commission, Decisions by the Commission, Guidance	EU	Employees at the Directorate for Plant Protection copies are delivered at request	at request
The Pesticide Manual	BCPC	Employees at the Directorate for Plant Protection	at request
The Biopesticide Manual	BCPC	Employees at the Directorate for Plant Protection	at request
EPPO		public	http://www.eppo.org
EPPO Standards - Guidance for the efficacy evaluation of plant protection products	EPPO	Employees at the Directorate for Plant Protection	at request
Pesticide specification - Manual on the development and use of FAO specifications for plant protection products	FAO	Employees at the Directorate for Plant Protection	at request
MSDS/Labels	USA	public	http://www.meisterpro.com
EPA	USA	public	http://www.epa.gov
Pesticide Safety Directorate	UK	public	http://www.pesticides.gov.uk
ECPA		public	http://www.ecpa.org
Electronic Code of Federal Regulation	USA	public	http:// www ecfr.gpoaccess.gov
FAO/WHO		public	http:// www fao.org
Crop Protection Handbook	USA	Employees at the Directorate for Plant Protection	at request
Recognition and Management of Pesticide Poisonings	EPA	Employees at the Directorate for Plant Protection	at request
Private Pesticide Applicator Study Guide	Iowa State University	Employees at the Directorate for Plant Protection	at request
A study Guide for Commercial Pesticide Applicators and Handlers	Iowa State University	Employees at the Directorate for Plant Protection	at request
Demonstration and Research, Iowa Commercial Pesticide Applicator Manual	Iowa State University	Employees at the Directorate for Plant Protection	at request
Agricultural Crop Disease Management, Iowa Commercial Pesticide Applicator Manual	Iowa State University	Employees at the Directorate for Plant Protection	at request
Agricultural Weed Management, Iowa Commercial Pesticide Applicator Manual	Iowa State University	Employees at the Directorate for Plant Protection	at request
Fruit and Vegetable Pest Control, Iowa Commercial Pesticide Applicator Manual	Iowa State University	Employees at the Directorate for Plant Protection	at request
Aerial Application, Iowa Commercial Pesticide Applicator	Iowa State University	Employees at the Directorate for Plant	at request

Manual		Protection	
Community Insect management, Iowa Commercial Pesticide Applicator Manual	Iowa State University	Employees at the Directorate for Plant Protection	at request
Fumigation, Iowa Commercial Pesticide Applicator Manual	Iowa State University	Employees at the Directorate for Plant Protection	at request
Termite Control, Iowa Commercial Pesticide Applicator Manual	Iowa State University	Employees at the Directorate for Plant Protection	at request
General and Household Pest Management, Iowa Commercial Pesticide Applicator Manual	Iowa State University	Employees at the Directorate for Plant Protection	at request
Right of Way, Iowa Commercial Pesticide Applicator Manual	Iowa State University	Employees at the Directorate for Plant Protection	at request
Aquatic Pest Control, Iowa Commercial Pesticide Applicator Manual	Iowa State University	Employees at the Directorate for Plant Protection	at request
Seed treatment, Iowa Commercial Pesticide Applicator Manual	Iowa State University	Employees at the Directorate for Plant Protection	at request
Forest Pest Management, Iowa Commercial Pesticide Applicator Manual	Iowa State University	Employees at the Directorate for Plant Protection	at request
Animal Pest Control, Iowa Commercial Pesticide Applicator Manual	Iowa State University	Employees at the Directorate for Plant Protection	at request
Agricultural Insect Control, Iowa Commercial Pesticide Applicator Manual	Iowa State University	Employees at the Directorate for Plant Protection	at request
Regulatory Pest Control, Iowa Commercial Pesticide Applicator Manual	Iowa State University	Employees at the Directorate for Plant Protection	at request
Public Health Pest Control, Iowa Commercial Pesticide Applicator ManualClean Sweep Report 2001	EPA	Employees at the Directorate for Plant Protection	at request
Protect Your self from Pesticides – Guide for Agricultural Workers	EPA	Employees at the Directorate for Plant Protection	at request
Protect Your self from Pesticides – Guide for Pesticide Handlers	EPA	Employees at the Directorate for Plant Protection	at request
Assessing Your Hazardous Materials - Storage and management	Iowa Farm Bureau	Employees at the Directorate for Plant Protection	at request
Novenyvedo Syerek Termesnovelo Anyagok	Hungarian Register for Plant Protecting Agents and Plant Nutrition	Employees at the Directorate for Plant Protection	at request
Codexul	Romanian Register for Plant Protecting Agents and Plant Nutrition	Employees at the Directorate for Plant Protection	at request
Seynam registrovanych pripravku na ochranu rostlin	Czech Register for Plant Protecting Agents	Employees at the Directorate for Plant Protection	at request
Produits phytosanitaires	Swiss Register	Employees at the	at request

	for Plant Protecting Agents	Directorate for Plant Protection	
Index des Produits phytosanitaires	French Register for Plant Protecting Agents	Employees at the Directorate for Plant Protection	at request
The UK Pesticide Guide	UK Register for Plant Protecting Agents	Employees at the Directorate for Plant Protection	at request
Препарати за растителна зашита, минерали торове и растежни регулатори	Bulgarian Register for Plant Protecting Agents	Employees at the Directorate for Plant Protection	at request
Manuali i Fitofarmacise	Albanian Register for Plant Protecting Agents	Employees at the Directorate for Plant Protection	at request
Japanese Pesticides Guide	Japanese Register for Plant Protecting Agents	Employees at the Directorate for Plant Protection	at request
Pesticides in agriculture and forestry	Serbian Register for Plant Protecting Agents	Employees at the Directorate for Plant Protection	at request

8.4 Availability of International and Local Data Base

Table 8.C: Availability of International and Local Data Base

Data Base	Location	Who Has Access	How to Gain Access
IRPTC (International Register of Potentially Toxic Chemicals)	internet	unlimited	http://www.chem.unep.ch/irptc/irptc/databank.html
ILO CIS (International Labor Organization-International Occupational Safety and Health Information System)	internet	unlimited	http://www.ilo.org/public/english/protection/safework/cis/products/dbs.htm
IPCS INTOX (International Program on Chemical Safety-Poisoning Prevention and Management)	internet	unlimited	http://www.intox.org/databank/pages/about.html
Chemical Abstract Service Database	internet	unlimited	http://www.cas.org/EO/regsys.html
GINC (Global Information Network on Chemicals-Japan)	internet	unlimited	http://wwwdb.mhlw.go.jp/ginc/index.html
STN Database (Scientific and Technical Information Network), US Chemical Abstract Service)	internet	unlimited	http://www.cas.org/ONLINE/DBSS/dbsslist.html
HINARI (Health InterNetwork Access to Research Initiative)	internet	Academic University Network	http://www.who.int/hinari/en/
Sciencedirect	internet	Academic University Network	http://www.sciencedirect.com/

Data base of the Poisoning Control Center at the Military Medical Academy	Poison Control Center	restricted	at request
ISDAKON (data base of the Ministry Finance on international development projects)	Internet	unlimited	www.evropa.sr.gov.yu

8.5 National Data Exchange System

8.5.1 Availability of Data basis as Registers Kept by Line Ministries inherent in Law Regulations

Ministry of Environment and Spatial Planning

As referred to in Article 38 of the Law on Production and Trade of Poisons («Official Gazette of RS», No. 15/95, 28/96 and 37/2002), the Register on Poisons is kept at the Ministry of Environment and Spatial Planning. Data source for the Register on Poisons is documentation submitted along with applications, information collected from legal entities dealing with production, trade control and testing of poisons and information from data basis of other countries and international organizations. Data from the Register can be used based on the approval of the line body. According to Article 40 of the Law, legal entities and entrepreneurs producing or trading of poisons shall within eight days from the day of starting, terminating of production or trade of poisons inform a body in charge of poisons they produce or terminating to produce or trade. The information contain preparation name, generic and chemical name of the active substance, empirical formula, percentage of active substances in the preparation, CAS number and data on types and contents of auxiliary substances in preparations. Data from the register are in hard copy, since the Register is not in electronic form. Data on legal entities meeting criteria for production and trade of poisons are in electronic form.

The Poisoning Control Center has a database on chemicals containing data on chemicals/preparation name, contents, packing shape and type, basic information on companies dealing with import/production/transport. Data are entered for all products that are registered through the commission for poisons and for which the company submitted an adequate application. According to Article 25 of the Law on production and trade of poisons ("Official Gazette of RS", No. 15/95, 28/96 and 37/2002), all those taking part in production, trade or use of chemicals shall submit data on all chemicals and chemical products to the Poison Control Center, which is not done in practice. According to provisions of Article 92 of the Law on Health Protection ("Official Gazette of RS", No. 107/05) there is an obligation to report all cases of poisoning by chemicals to the Poison Control Center, that, among others, is in charge of keeping records on incidents concerning poisoning from chemicals, provide information and advices regarding acute poisoning and submit data on poisoning from chemicals to the Ministry of Health and the ministry responsible for chemicals management. The Poison Control Center has not received an official decision regarding performing of activities in conformity with the Law on Health Protection ("Official Gazette of RS", No. 107/05) and therefore the Center is still not provided with data on poisoning cases. Data on acute poisoning from chemicals are from patients recovered at the Poison Control Center and registered calls (mainly from doctors and some citizens) calling the center to get advices to help the poisoned people.

The Regulations on methodologies for assessing risk from chemical accidents and environmental pollution, preparedness and response measures ("Official Gazette of RS", No. 60/94, 63/94) defines in Articles 7 and 8 an obligation to keep records by companies on dangerous substances and an obligation to submit data by January 31 for the previous year. According to this Article, an electronic database is established, kept at the Department for Risk Management - Accident Response Unit at the Ministry of Environment and Spatial Planning. In 2005, the environmental

protection inspection unified 2005 data submitted in conformity with the Regulations into the Report on types and quantities of dangerous substances including dangerous waste.

In conformity with the Law on Environmental Protection ("Official Gazette of RS", No. 135/04"), the ministry responsible for environmental protection keeps records on import, export and use of ozone depleting substances and products. This electronic database is kept at the Ministry of Environment and Spatial Planning. Based on data from this database data on import, export and use of these substances are submitted to the Ozone Secretarial within United Nations Environment Pregramme.

Ministry of Agriculture, Forestry and Water Management - Directorate for Plant Protection

In the area of plant protection and nutrition products, which is in the jurisdiction of the Directorate for Plant Protection, there are only lists of decisions on issuing licenses for trading, list of producers, authorized agents and importers, list of plant protecting agents broken down by purpose by plant species, i.e. objects they are applied to. Development of a database concerning the overall scope of work of the Directorate for Plant Protection is in preparation. The Directorate for Plant Protection keeps records on import of active substances and commercial preparations and as of January 1, 2006 publishes it quarterly on the web page of the Ministry of Agriculture, Forestry and Water Management.

Ministry of Infrastructure

Department for Traffic Safety keeps a list on transporters provided with licenses for transport of dangerous goods of class 6.1 (poisons) and other substances with poison properties in in-land transport.

Ministry of Labor and Social Policy - Directorate for Occupational Safety and Health

In the Directorate for Occupational Safety and Health databases inherent in the Law on Occupational Safety and Health ("Official Gazette of the Republic of Serbia", No. 101/05) are currently being prepared, so for the time being, they do not exist.

Ministry of Interior Affairs

In conformity with the Law on Fire Protection („Official Gazette of SRS", No. 37/88, 48/94, 101/05), in the Ministry of Interior Affairs, Department for Protection and Rescuing, there is an internal database of issued approvals concerning applied and implemented fire protection measures. Moreover, there is an internal database on production, trade and transport of explosive substances, flammable liquids and gases (e.g. list of licenses concerning locations approval, investment and technical documentation, list of licenses for trade in explosives, licenses for transport, etc.).

Ministry of Economy and Regional Development

In conformity with the Law on foreign trade in weapons, military equipment and dual-use goods („Official Gazette of Serbia and Montenegro", No. 7/2005), the enforcement of which is responsibility of the Sector for foreign trade policy and regime, there is an obligation prescribed to form a data base containing data on issued and denied licenses for foreign trade in controlled goods.

Ministry of Finance

The Sector for Programming and Management of EU funds and Development Assistance of the Ministry of Finance has formed ISDAKON informational system, a unique official date base of the Governmental of the Republic of Serbia concerning international development assistance to Serbia. From the technical viewpoint, the informational system represents a unique database, web-designed,

as a tool of the Serbian Government to provide timely information on grants, projects, donors' procedures, existing and possible available donors' funds as well as priority projects eligible for donors' financing. Besides, in the section regarding documents, news and links, it is possible to find other useful information on principles of donors' assistance to the Republic of Serbia and worldwide. The database is sector-oriented, which means that entering of data/projects is responsibility of each line ministries. Thus, all Projects relevant to the international assistance to the Republic of Serbia as of 2000, including assistance to the environmental protection sector, are registered in the database at: www.evropa.sr.gov.yu.

Business Registers Agency

The Business Registers Agency was established with the aim of increasing rentability, data availability and creation of a single centralized database – records on registered businesses, contracts on financial leasing and pledges
The Business Registers Agency runs three registers:

- Business Register(companies and entrepreneurs);
- Register of Pledges over Movable Property and Rights;
- Register of Financial Leasing

As of January 1, 2006, registration of entrepreneurs is responsibility exclusively of the Business Registers Agency. Entrepreneurs that used to be registered until January 1, 2006 at municipal bodies shall re-register at the Business Registers.

8.6 Comments and Recommendations

The Draft National Environmental Protection Program states that at the time being there is no comprehensive database concerning chemicals on the Serbian market and their properties including dangerous chemicals, which represents one of the main shortages for sound chemicals management. Therefore, one of priority actions is to establish and develop information system concerning chemicals management, that will enable creation and updating of a database on chemicals on the market and their properties as well as a study on chemical impact to human health and the environment.

Prior to setting of the informational system, there is a need to prepare a study that will analyze responsibilities to submit data inherent in the laws, needs of various bodies to have data on chemicals on the market analysis of existing data basis in Serbia, analysis of databases in EU countries. Upon completion of the analysis, the study should provide recommendations concerning an adequate informational system for Serbia. An efficient data base setting and maintaining requires adoption of by-law regulations defining it in details in conformity with the Law on Chemicals as well as to define a role of the Serbian Environmental Protection Agency concerning setting and updating of the data base. The database concerning chemicals on the market and their properties should be available through creation of an electronic network among governmental bodies responsible for certain aspects of the chemical life-cycle, ensuring protection of confidential information. The database should be compatible with EU data basis concerning chemicals.

A central and integrated database should be established concerning all environmental factors and cadastre of polluters in the Republic of Serbia and ensure availability of data on the environment to public. This database should be linked with the network of European Environmental Information and Observation Network (EIONET). Aimed at development of the information system it is needed to define the contents and methods of keeping the informational system, methodology, structure, common basis, categories and collection data levels as well as contents of information that are regularly and obligatory disseminated to the public.

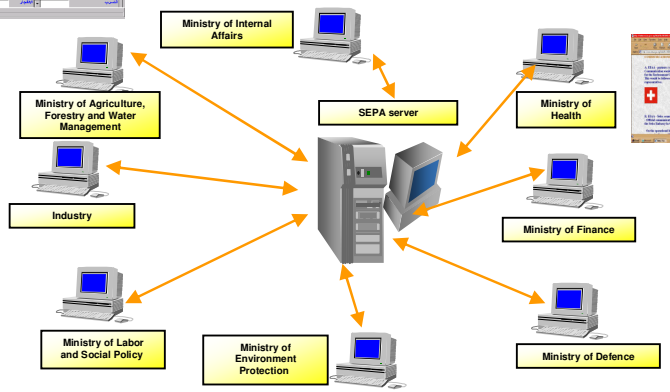
A form for license acquiring

CD

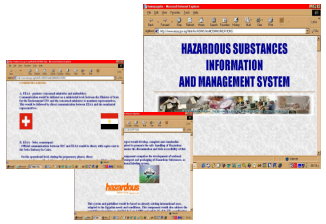
User Manual

Web Site

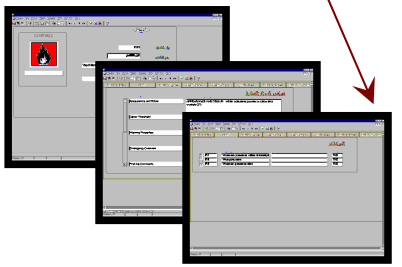
Chemical Accident Response

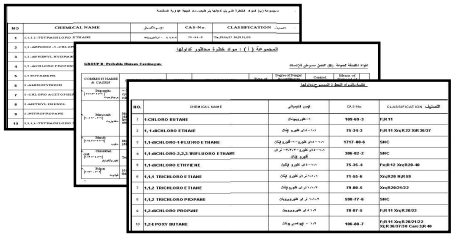


Information Network

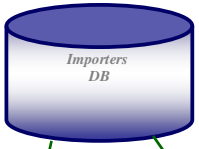


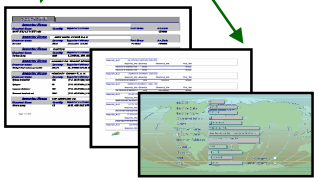
Data Base



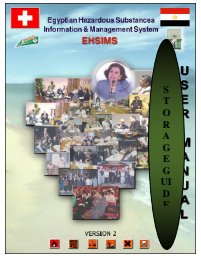


Lists of Substances





Importers Data Base



Warehousing Manual

Classification of Dangerous Substances

Label Contents

IX CHAPTER: TECHNICAL INFRASTRUCTURE

9.1 Review of Laboratory Infrastructure for Chemical Testing

The Serbian Accreditation Body is a non-profit organization defining competences of organizations in performing assessments in terms of compliancy of testing; inspection; certification of products and procedures; management system certification; certification of professionals. The accreditation determines also competences of organization to perform the activities concerning calibration. The afore-said activities of compliancy assessment determine the type of accreditation (accreditation scheme).

The accreditation system is realized through mechanisms of initial assessments, supervisory visits and reassessment in conformity with the international requirements for work of the accreditation body, defined by the standards ISO/IEC 17011. The accreditation, based on international standards and guidance, represents an objective and independent defining of technical competencies of organizations / bodies evaluating compliance of products and services.

The Serbian Accreditation Body passes and implements regulations that closely define criteria, rules and procedures in terms of accreditation and evaluation of compliancy based on national and international standards and technical regulations, i.e. general requirements of harmonized standards EN 45000 of the European Committee for Standardization (CEN) and International Organization for Standardization (ISO).

The Serbian Accreditation Body has international cooperation and represents Serbian interests concerning accreditation aimed at joining regional and international accreditation systems requiring signing and implementation of reciprocal recognition agreements.

In the period 2000 – 2006, the following laboratories were accredited:

- Testing laboratories 147+22
- Calibration laboratories 108
- Certification bodies for certification of products 12+1
- Control bodies 14+2
- Certification bodies for QMS 5
- Certification bodies for EMS 3

The accreditation is valid for 4-year period.

In conformity with the law and accreditation regulations, the Serbian Accreditation Body keeps the register on accredited organizations along with data thereof. A list of accredited organizations by the Serbian Accreditation Body and basic data thereof are placed on the following web-site www.juat.gov.yu.

Table 9.A: Overview of Laboratory Infrastructure for Regulatory Chemical Analysis*
(Data source: Serbian Accreditation Body - JUAT)

Name of Laboratory	Address/Contact Person/Tel./Fax/E-mail	Accredited Testing								Technical equipment***					
		Pesticides	**Fertilizers**	**Petroleum products**	**Residue**	**General Chemicals**	**Air**	**Soil**	**Waste water**	**SF**	**AAS**	**HPLC**	**GC**	**GCMS**	**OTHER**
Food Quality Inspection Center, Belgrade	11, Zmaja od Nocaja Street 11000 Belgrade Zeljko Huljev Tel.: 011-185-567 Fax: 011-625-720				**F**					**+**	**+**	**+**	**+**		
Public Health Institute, Cacak	25, Dr Dragisa Misovic Street 32000 Cacak Dr Vesna Sumanov Tel.: 032-310-345; Fax: 032-325-019				**F W**		**+**		**+**	**+**	**+**	**	**+**		
Public Health Institute, Zrenjanin	15, Dr Emila Gavrila Street 23000 Zrenjanin Ljiljana Lukic Tel.: 023-66-345; Fax: 023-560-156				**F**		**+**			**+**	**+**	**+**	**+**		**IR**
Public Health Institute, Krusevac	2, Vojvode Putnika Street 37000 Krusevac Nenad Kostic Tel.: 037-27-241; Fax: 037-22-951				**F**		**+**			**+**	**+**	**+**	**+**	**+**	**IR**

Name of Laboratory	Address/Contact Person/Tel./Fax/E-mail	Accredited Testing								Technical equipment***					
		Pesticides	**Fertilizers**	**Petroleum products**	**Residue**	**General Chemicals**	**Air**	**Soil**	**Waste water**	**SF**	**AAS**	**HPLC**	**GC**	**GCMS**	**OTHER**
Serbian Public Health Institute «Dr Milan Jovanovic - Batut» Belgrade	5, Dr Subotica Street 11000 Belgrade Milica Gojkovic Tel.: 011-685-053; Fax: 011-685-735				**F W**		**+**		**+**	**+**	**+**	**+**	**+**	**+**	**IR, ICP, JC**
Public Health Institute, Novi Sad	121, Futoska 21000 Novi Sad Biserka Mihailovic Tel.: 021/616-570; Fax: 021/613-989 e-mail:izzz@eunet.yu				**FW**		**+**		**+**	**+**	**+**	**+**	**+**	**+**	**IR**
Knjaz Milos, Arandjelovac	Industrial zone 34300 Arandjelovac Zorica Vukcevic Kljaic Tel.: 034/700-256, Fax: 034/700-788 e-mail: ris@knjaz.co.yu				**FW**					**+**	**+**	**+**	**+**	**+**	**IR JC**
Scientific Veterinary Institute	6, Rumenacki Road 21000 Novi Sad Dr Mira Kovacevic Tel.: 021/4776 000; Fax: 021/317 544				**F**					**+**	**+**	**+**	**+**		
Jugoinspekt, Novi Sad, Laboratory testing petroleum and chemical products	23/I, Dunavska Street 21000 Novi Sad Mirjana Djogo Tel.: 021-422-733; Fax: 021-611-822		**+**	**+**		**+**				**+**			**+**		

Name of Laboratory	Address/Contact Person/Tel./Fax/E-mail	Accredited Testing								Technical equipment***					
		Pesticides	**Fertilizers**	**Petroleum products**	**Residue**	**General Chemicals**	**Air**	**Soil**	**Waste water**	**SF**	**AAS**	**HPLC**	**GC**	**GCMS**	**OTHER**
Jugopetrol, Belgrade Laboratory testing petroleum and petroleum products	3, Radnicka Street 11000 Belgrade Slobodan Djuric Tel.: 011-3549-723; Fax: 011-3549-716			+						+	+	+	+		**IR XRF**
Oil Refinery, Belgrade	83, Pancevo Road 83 11000 Belgrade Dusan Ilic Tel.: 011-2711-311; Fax: 011-2711-257			+						+	+				**IR XRF**
Public Health Institute, Kosovska Mitrovica	Anra Danina Street Kosovska Mitrovica Dr Predrag Manojlovic Tel.: 028/423-960; Fax: 028/425-280 e-mail:zzzzkm@yahoo.com								+	+	+				**IR**
Institute for Chemistry, Technology and Metallurgy, Belgrade	12, Njegoseva Street 11000 Belgrade Vlatka Vajs, PhD Tel.: 011-630 474; Fax: 011-636 061			+	**W A**	+	+	+	+	+	+	+	+		**IR**
University of Chemical Engineering, Novi Sad	1, Bulevard Cara Lazara 21000 Novi Sad Dr Jasna Mastilovic Tel.: 021/58 221 Fax: 021/450 413 laboratorija@tehnol.ns.ac.yu				**FW**				+	+	+	+	+		

Name of Laboratory	Address/Contact Person/Tel./Fax/E-mail	Accredited Testing								Technical equipment***					
		Pesticides	**Fertilizers**	**Petroleum products**	**Residue**	**General Chemicals**	**Air**	**Soil**	**Waste water**	**SF**	**AAS**	**HPLC**	**GC**	**GCMS**	**OTHER**
Oil Refinery Pancevo	Spoljnostarcevacka Street 26000 Pancevo Dragana Cvetkov Rudez Tel.: 013/347 568 Fax: 013/347-568 E-mail: dragana.cvetkov.rudez@panet.co.yu			+						+	+	+	+	+	**ICP JC IR XR**
Vinca, Laboratory for Chemical Dynamic	P.O.B. 522 11000 Belgrade Dr Antonije Onjia Tel.: 011/4445 472, e-mail: onjia@vin.bg.ac.yu			+	**F**		+	+	+	+	+	+	+		**ICP** XRF
NIS Naftagas, Central laboratory	12, Narodnog Fronta Street 21000 Novi Sad Dragan Oprijan Tel.: 021/624 427, Fax: 021/621 463			+				+		+	+		+	+	**XRF**
Zorka, Sabac, Institute for Analytical Chemistry	1, Narodnih Heroja Street 15000 Sabac Branka Damjanovic Tel.: 015/324 634, Fax: 015/324 621	+				+				+	+		+		

Name of Laboratory	Address/Contact Person/Tel./Fax/E-mail	Accredited Testing								Technical equipment***					
		Pesticides	**Fertilizers**	**Petroleum products**	**Residue**	**General Chemicals**	**Air**	**Soil**	**Waste water**	**SF**	**AAS**	**HPLC**	**GC**	**GCMS**	**OTHER**
NIS Naftagas trade, Novi Sad	12, Narodnog Fronta Street 21000 Novi Sad Tel.: 021-481-2082 Fax: 021-481-4345 E-mail: naftagas@eunet.yu www.nis-naftagas.co.yu			+						+	+	+			
Eko Lab, Padinska Skela	Industrial Zone 11000 Belgrade – Padinska Skela Dragana Zugic Tel.: 011-8871-401 Fax: 011-8871-534		+		**F**			+	+	+	+	+			
FAM, Krusevac	14, Jastrebacka Street 37000 Krusevac Nenad Pavlovic Tel.: 037-422-078 037-38-992			+						+			+		XRF
Institute for Hygiene and Meat Technology	13, Kacanskog Street 11000 Belgrade Ljubomir Nedeljkovic Tel.: 011-2650-722; Fax: 011-2650-655; E-mail:meatinst@beotel.yu				**F**					+	+	+	+		

Name of Laboratory	Address/Contact Person/Tel./Fax/E-mail	Accredited Testing								Technical equipment***					
		Pesticides	**Fertilizers**	**Petroleum products**	**Residue**	**General Chemicals**	**Air**	**Soil**	**Waste water**	**SF**	**AAS**	**HPLC**	**GC**	**GCMS**	**OTHER**
Copper Rolling Plant, Sevojno	Prvomajska Street 31000 Sevojno Biljana Majkic Tel.: 031/532 255, Fax: 031/531 798			+		+			+	+			+		OE/ICP, IR, XRF
Public Health Institute, Subotica	30, Zmaj Jovina Street 24000 Subotica Tamara Kalinic Tel.: 024/571 192, Fax: 024/571 333				**F**					+	+	+	+		
Bio-Ecological Center, Zrenjanin	15, Petra Drapsina Street 23000 Zrenjanin Ruzica Vasic Tel.: 023/545-722; Fax: 023/523-158 email:bioekoloski@bioec.co.yu				**F**		+	+	+	+	+	+	+	+	
NIS Oil Refinery, Novi Sad	4, Sajkaskog Odreda Road 21000 Novi Sad Branislava Karolica Tel.: 021-6615 111 Fax: 021-6615-111 e-mail:branislava.karolic@rns-nis.co.yu			+						+	+	+	+		

Name of Laboratory	Address/Contact Person/Tel./Fax/E-mail	Accredited Testing								Technical equipment***					
		Pesticides	**Fertilizers**	**Petroleum products**	**Residue**	**General Chemicals**	**Air**	**Soil**	**Waste water**	**SF**	**AAS**	**HPLC**	**GC**	**GCMS**	**OTHER**
Public Health Institute Vranje	1, J.J. Lunge 17500 Vranje Jasminka Cvetkovic, M.Sc Tel./Fax 017-24-831				+		+		+	+	+		+		
Vital, Vrbas Department for Quality, Laboratory for testing	1, Marsala Tita Street 21460 Vrbas Milenko Nedovic Tel.: 021-705-402 Fax: 021-706-850								+	+					**NMR**
HIP Petrohemija, Pancevo	82, Spoljnostarcevacka Street 26000 Pancevo Dmitar Krivokuca Tel.: 013-344-491; Fax: 013-513-806			+						+			+		**NMR**
Public Health Institute, of the City of Belgrade	54a, Boulevard Despota Stefana 11000 Belgrade Dr Snezana Matic - Besarabic Tel.011-2078-635 Fax.011-20786351				**F W**	+	+	+	+	+	+	+	+	+	**ICP/OES ICP/MS, JC, TOC,N,S,Cl.**
Jugoinspekt, Belgrade	11, Teodora Drajzera Street 11000 Belgrade Zlata Nikcevic Tel.: 011/3672-287 Fax: 011/2626-349				**F**						+		+		

Name of Laboratory	Address/Contact Person/Tel./Fax/E-mail	Accredited Testing								Technical equipment***					
		Pesticides	**Fertilizers**	**Petroleum products**	**Residue**	**General Chemicals**	**Air**	**Soil**	**Waste water**	**SF**	**AAS**	**HPLC**	**GC**	**GCMS**	**OTHER**
Tamis Institute, Pancevo	33, Novoseljanski Road 26000 Pancevo Dusanka Brajanoski, M.Sc Tel.: 013-313-092 Fax: 013-520-991							+		+			+		
Zastava car factory, Kragujevac Central laboratory	4, Topolivaca Square 34000 Kragujevac Branislav Nedeljkovic, PhD Tel.: 034-335-636 Fax: 034-335-636			+		+				+	+		+		**ES**
Ecological Station, Vrsac	49, Heroja Pinkija Street 26300 Vrsac Dragoslav Biocanin Tel.: 013-821-601 Fax: 013-821-601				**F**					+	+	+	+		
Soya Protein, soya processing plant - Department for Quality Control	Industrial Zone 21220 Becej Branka Babin Tel.: 021-815-311 Fax: 021-812-545 email:office@soyaprotein.com		+		**F**			+	+	+	+	+	+	+	**JC**

Name of Laboratory	Address/Contact Person/Tel./Fax/E-mail	Accredited Testing								Technical equipment***					
		Pesticides	**Fertilizers**	**Petroleum products**	**Residue**	**General Chemicals**	**Air**	**Soil**	**Waste water**	**SF**	**AAS**	**HPLC**	**GC**	**GCMS**	**OTHER**
Serbian Hidrometeorological Service	66, Kneza Viseslava Street 11 000 Belgrade Tel.: 011-3537-930 Fax: 011-3537-821 email: laboratorija@hidmet.sr.gov.yu www.hidmet.sr.gov.yu						+		+	+	+	+	+	+	**IR, ICP**
Institute for Agricultural Improvement, Backa Topola	103, Rade Koncar Street 24300 Backa Topola Zivojin Vukosavljevic Tel.: 024-714-121 Fax: 024-711-100 email: zupbt@eunet.yu		+					+		+					**Flaming photometer**
Institute for Agricultural Research - Center for Pesticides, Belgrade	2/III, Zeleni Venac 11000 Belgrade Tel.: 011 180 509 Fax: 011 628 398	+								+	+	+	+	+	
Public Health Institute, Nis	60, Zorana Djindjica Boulevard 18000 Nis Prof. Dr. Dragana Nikic Tel.: 018 537 247; Fax: 018 225 947				**F**		+		+	+	+		+		**IR**

Name of Laboratory	Address/Contact Person/Tel./Fax/E-mail	Accredited Testing								Technical equipment***					
		Pesticides	**Fertilizers**	**Petroleum products**	**Residue**	**General Chemicals**	**Air**	**Soil**	**Waste water**	**SF**	**AAS**	**HPLC**	**GC**	**GCMS**	**OTHER**
Agricultural Station, Krusevac	41, Colak Antina Street 37000 Krusevac Ljubica Jacimovic Tel.: 037 27 811; Fax: 037 21 912 E-mail: poljstks@ptt.yu							+		+	+				
Public Health Institute, Kragujevac	1, Nikole Pasica Street 34000 Kragujevac				**F**		+		+	+	+		+	+	
Research Institute of Field and Vegetable Crops, Novi Sad	30, Maksima Gorkog Street 21000 Novi Sad Dr Petar Sekulic Tel.: 021-421-717	+	+		+			+		+	+	+	+	**	**ICP**
Maize Institute, Zemun - Belgrade	1, Slobodana Bajica Street Zemin Polje 011/ 3756 704, 3754 994	+													
Copper Institute, Bor	35, Zeleni Boulevard 19210 Bor Suzana Stankovic Tel.: 030-432/299 ext. 690; Fax: 030-435-175					+				+	+				**OES**

NOTE: The overview provides only a general picture of accredited laboratories and their technical equipment available produced thanks to data on accreditation and documentation submitted by the Serbian Accreditation Body, but the following should be taken into consideration:
the list contains the laboratories whose activities include testing of chemicals*; but testing of same chemicals does not mean defining of the same properties or use of the same methodology, technical equipment listed is in conformity with data from the documentation and might not be updated.
* CHEMICALS include as follows:

- pesticides
- fertilizers
- petroleum products
- residues- pesticides, biphenil, heavy metals and/or microtoxins in food products, water, air and/or soil
- (F-food; W-water; A-air)
- general chemicals
- air
- soil
- waste water

** in procurement procedure
*** Technical equipment: SF-spectrophotometer; AAS- atomic absorbtion spectrophotometer; HPLC- liquid chromatography; GC-gas chromatography; GCMS - gas chromatography mass spectrometry; IR - infrared spectrophotometer; ICP OES - inductively coupled plasma; IC - ion chromatograph; IR XRF- X ray - fluorescence spectrometer; ES - emission spectrometer; OES - optical emission spectrometer; NMR - nuclear magnetic resonance spectrometer; TOC - total organic carbon analyzer.

9.1.1 Procedure for Acquiring Licenses for Testing Pesticides and Fertilizers

Testing of pesticides and fertilizers is performed by legal entities that in terms of human resources, equipment and instruments meet criteria for testing of physical and chemical characteristics and biological efficiency of pesticides and fertilizers authorized by a competent body i.e. Ministry of Agriculture, Forestry and Water Management, pursuant to Article 51 of the Law on Plant Protection (Official Gazette of FRY, No. 24/98 and 26/98 and Official Gazette of RS, No. 101/05). The competent body forms a Commission to verify meeting of criteria consisting of experts from competent institutions, phiytosanitary inspectors and a person in charge of this matter in the Directorate for Plant Protection of the Ministry of Agriculture, Forestry and Water Management. Upon reviewing of documentation and visit to the laboratory, it is stated in the minutes the state of affairs and a Decision is made, in conformity with the legal regulation.

Table 9.A1: List of Authorized Institutions for Testing of Pesticides by the Ministry of Agriculture, Forestry and Water Management

Authorized Institutions	Address/Tel./Fax	Contact Person/Position/Contacts (Tel., E-mail, Fax)	Equipment Available (list only major equipment for testing of chemical and physical properties)	Accreditation (if yes, by whom?)
Institute for Plant Protection and Environment	9, Teodora Drajzera Street, Belgrade	Testing of physical and chemical properties - responsible person - Predrag Jovanic, PhD	1. Gas Chromatograph HP 5890 FID/NPD 2. Gas Chromatograph Varian 1400 with EC 3. Liquid Chromatograph HP 1050 with data station	JUS ISO 9001:2001

	011/660-049, 660-079, 669-860	Testing of effectiveness of: - zoocides - responsible person - Slobodan Krnjajuc, M.Sc - herbicides and growth regulators - responsible person - Daniela Pavlovic, M.Sc, - fungicides - responsible person - Goran Aleksic, M.Sc - bactericides - responsible person - Veljko Gavrilovic, PhD	4. Spectrophotometer Shimadzu UV-VIS 2100	
Center for Pesticides and Environmental Protection	31b, Banatska Street Zemun 011/3076 133, 3076 136, 316 1773	Testing of physical and chemical properties - responsible person - Mirjana Markovic, PhD Testing of effectiveness of: - zoocides - responsible person - Ilija Peric, M.Sc - herbicides and growth regulators - responsible person - Vaskrsije Janjic, M.Sc, Ljiljana Radivojevic, M.Sc - fungicides - responsible person - Brankica Tanovic, M.Sc, Emil Rekanovic, M.Sc. - bactericides - responsible person - Biljana Todorovic, M.Sc	Atomic Absorption Spectrometer (flame and hydride generation techniques) (SpectrAA 220., Varian) GC/MS/MS System (Saturn 2200, Varian) Liquid Chromatograph (HPLC-UV detector) (Model CM 4000, Milton Roy) Gas Chromatograph (FID) (Model 3700, Varian) Spectrophotometer (UV-VIS) (Model BP 106, Secomam) Spectrophotometer (VIS) (Biochrom Novospec II, LKB) pH meter (InoLab pH 730, WTW) Cooled Incubator (Model KB 53, Binder) Water Purification Unit (PureLab Option-R7, Elga) Viscosimeter (Hoeppler) (VEB MLW B3) Standard Pensky Martens closed tester for flash point determination	JUS ISO 9001:2001 JUS ISO 17 025
Institute of Field and Vegetable Crops	30, Maksima Gorkog Street Novi Sad 021/ 4898 100, 621 212	Testing of physical and chemical properties - responsible person - Mira Pucarevic, PhD Testing of effectiveness of: - zoocides - responsible person Radosav Sekulic, PhD - herbicides and growth regulators - responsible person - Goran Malidza, M.Sc - fungicides - responsible person - Radivoje Jevtic, PhD	Liquid chromatograph Hewlett Packard 1090 with DAD and fluorescence detector Gas chromatograph Hewlett Packard 5890 with FID Liquid chromatograph Hewlett Packard 1100 with DAD Gas chromatograph Hewlett Packard 5890 series II with ECD - NPD Supercritical fluid extractor Hewlett Packard SFE Module 7680A02.01. ICP-OES Vista Pro Atomic emission Varian Axial Atomic absorption Varian SpectrAA-600	ISO 9001:2001 (national and British Standard Institution) ISO 17 025 (national and British Standard Institution)

			S, H, N, S, O analyzer Elemetar Vario EL III	
Zorka - Research Center Ltd., in restructuring process	1, Hajduk Veljkova Street Sabac	Testing of physical and chemical properties -responsible person Milanka Miladinovic, M.Sc	Gas chromatography 8700 PERKIN-ELMER with FID and ECD detectors Atomic-absorption spectroscopy 420 Perkin-Elmer with flame technique and MHS-20 (mercury hydride system) UV-VIS spectrophotometry PERKIN-ELMER, HИTACHI 200 IR, spectrophotometry, PERKIN-ELMER Flame-photometry, EVANS Potentiometer titrator, RADIOMETER	JUS ISO 9001:2001 JUS ISO 17 025
University of Agriculture – Department for Plant Protection and Environment «Dr Pavle Vukasovic»,	8, Dositeja Obradovica Square Novi Sad 021/350 366, 450 616	Testing of physical and chemical properties - responsible person Sanja Lazic, PhD Testing of effectiveness of: - zoocides - responsible person Dusanka Indjic - fungicides - responsible person - Vera Stojsin, PhD - bactericides - responsible person - Jelica Balez, PhD	Gas Chromatograph Hewlett Packard 5890 ser. II with ECD Integrator HP 3396 A Integrator HP 3396 Ser. II Liquid Chromatograph: Agilent Technologies 1100, with DAD and Fluorescence detectors UV/VIS Spectrophotometers, Pye Unicam and K.Z.Jena	-
University of Agriculture – Institute for Plant Protection and Food Products Protection	6, Nemanjina Street Zemun	Testing of physical and chemical properties responsible person - Milica Mojasevic, PhD Testing of effectiveness of: - herbicides and growth regulators - responsible person Ibrahim Elezovic, PhD, Sava Vrbnicanin, PhD and Katarina Jovanovic - Radovanov, M.Sc	Gas Chromatograph Varian 140 with AFID Gas Chromatograph Varian 140 with ECD Gas Chromatograph Varian 140 with FID Gas Chromatograph Shimadzu with NPD Integrator Spectra Physics SP 4270 Integrator Varian 4290 UV/VIS Spectrophotometers, Waters	-

		- fungicides - responsible person Petar Vuksa, PhD, Novica Miletic, PhD, Mirko Ivanovic, PhD - bactericides - responsible person - Aleksa Obradovic, PhD		
Maize Research Institute	1, Slobodana Bajica Street Zemun Polje 011/ 3756 704, 3754 994	Testing of effectiveness of: - zoocides - responsible person Franja Baca, PhD and Snezana Gosic - Dondo, M.Sc - herbicides and growth regulators - responsible person Lidija Stefanovic, PhD and Milena Simic, PhD - fungicides - responsible person Jelena Levic, PhD and Slavica Stankovic, PhD	-	JUS ISO 9001:2001 JUS ISO 17 025
University of Forestry	1, Kneza Viseslava Street Belgrade 011/ 553 122, 545 458	Testing of effectiveness of : - zoocides - responsible person Ljubodrag Mihajlovic, PhD, Milka Glavendekic, PhD and Cedomir Markovic, Phd - herbicides and growth regulators - responsible person Milan Milenkovic, M.Sc - fungicides - responsible person Dragana Karadzic, PhD and Tanja Milijasevic, PhD	-	
Institute of Forestry	3, Kneza Viseslava Street Belgrade 011/ 553 454, 545 969, 355 33 55	Testing of effectiveness of: - zoocides - responsible person Mara Tabakovic - Tosic, PhD - herbicide and growth regulator - responsible person Ljubinko Rakonjac, M.Sc - fungicides - responsible person Vlada Lazarev, PhD	-	

Table 9.A2: List of Authorized Institutions for Testing of Pesticides by the Ministry of Agriculture, Forestry and Water Management

Name of Laboratory	Address/Contact Person/Tel./Fax/E-mail	Type of testing	Accreditation
Institute of Field and Vegetable Crops	30, Maksima Gorskog Street Novi Sad 021/ 4898 100, 621 212	Chemical and physical properties of fertilizers; nutritive value of fertilizers; microbiological fertilizers	ISO 17 025 JUAT and international
University of Agriculture, Zemun, Land Improvement Institute	6, Nemanjina Street Zemun - Belgrade	Chemical and physical properties of fertilizers; nutritive value of fertilizers; microbiological fertilizers	
Institute of Soil Science	7, Teodora Drajzera Street Belgrade	Chemical and physical properties of fertilizers; nutritive value of fertilizers; microbiological fertilizers	
Center for Pesticides and Environmental Protection	31b, Banatska Street Zemun, Belgrade 011/3076 133, 3076 136, 316 1773	Chemical and physical properties of fertilizers; nutritive value of fertilizers; microbiological fertilizers	JUS ISO 17 025
Zorka, Research Center	1, Hajduk Veljkova Street Sabac	Chemical and physical properties of fertilizers	JUS ISO 17 025
Institute for the Application of Nuclear Energy - INEP	31, Banatska Street Zemun, Belgrade	Chemical and physical properties of fertilizers	
Bio-ecological Center	15, Petra Drapsina Street Zrenjanin	Chemical and physical properties of fertilizers	
University of Agriculture – Department for Plant Protection and Environment «Dr Pavle Vukasovic»,	8, Dositeja Obradovica Square Novi Sad 021/350 366, 450 616	Nutritive value of fertilizers; microbiological fertilizers	
Center for Vegetable Crops	71, Karadjordjeva Street Smederevska Palanka	Nutritive value of fertilizers;	

9.1.2 Procedure for Acquiring Licenses for Professional Organizations for Emission and Imission Measurements

Professional organizations submit applications to get the authorization from the Ministry of Environment and Spatial Planning. Prior to submitting the application, professional organizations shall be informed on the following:

- Regulation on Detailed Conditions to be Met by Professional Organizations Measuring Emission and Imission ("Official Gazette of RS", No. 5/02)
- Regulation on marginal values, methods of measurement of imission, criteria for setting gauging points and records keeping ("Official Gazette of RS" No. 54/92 and 30/99)
- Regulation on marginal values of emission, methods and timeframe for measurement and records keeping ("Official Gazette of RS" No. 30/97 and 35/97)
- Law on the Environmental Protection ("Official Gazette of RS" No. 66/91, 83/92, 53/93, 67/93, 48/94, 53/95) in the part which relate to the air and natural goods protection as well as protection from noise and the Law on the Environmental Protection ("Official Gazette of RS" No. 135/04).

Once professional institutions meet criteria prescribed by the regulations, they should fill in the form to get the authorization to measure emission and imission. The Commission formed by the Ministry of Environment and Spatial Planning performs determining whether conditions are met. The Commission performs field visits to verify statements of the professional institution submitted along with the application for license for measurement of emission/imission, in terms of human resources, equipment, premises and method of data recording and determines expertise concerning measurement of emission/imission. It is recorded in the minutes the state defined during the field visits to the professional institution. Upon insight into the documentation, field verifications and records defining current state, an appropriate Decision is made in conformity with the legal regulations.

<u>List of Licensed Institutions by the Ministry of Environment and Spatial Planning for Emission/Imission Measurement</u>

1. Institutions provided with the Decision upon entering of the Regulation on Detailed Conditions to be met by Professional Organizations Measuring Emission and Imission into force ("Official Gazette of RS", No. 5/02):

1.1. Prior to the entering of the Law on the Environmental Protection into force ("Official Gazette of RS", No. 135/04), the reconsideration of the following Decisions is planned:

1. ”Copper Rolling Plant”, Sevojno,
   DECISION ON MEASUREMENT OF EMMISSION AND IMISSION as of September 2002;
2. University of Engineering – Center for Rational Energy Use, Kragujevac,
   6, Sestre Janjic Street,
   DECISION ON MEASUREMENT OF EMMISSION as of September 2002;
3. EPS PC TE “Nikola Tesla”, Obrenovac,
   DECISION ON MEASUREMENT OF IMMISSION, as of September 2002;
4. Public Health Institute, Vranje,
   DECISION ON MEASUREMENT OF IMMISSION as of September 2002;
5. Public Health Institute, “Pomoravlje”, Cuprija,
   DECISION ON MEASUREMENT OF IMMISSION as of February 2002 and DECISION ON MEASUREMENT OF EMMISSION as of May 2003;
6. Institute of Nuclear Sciences - "Vinca" – Laboratory for Thermal Engineering and Energy,
   DECISION ON MEASUREMENT OF EMMISSION as of July 2002;
7. Public Health Institute “KRAGUJEVAC”, Kragujevac,
   DECISION ON MEASUREMENT OF IMMISSION as of November 2002 and DECISION ON MEASUREMENT OF EMMISSION as of May 2004;

8. RTB BOR - GROUP, Copper Institute, Bor Ltd., Bor,
   DECISION ON MEASUREMENT OF EMMISSION AND IMISSION as of March 2003;
9. University of Engineering in Belgrade – Center for Process Engineering, DECISION ON MEASUREMENT OF EMMISSION as of March 2003;
10. University of Engineering in Kraljevo – Center for Thermo Energy, DECISION ON MEASUREMENT OF EMMISSION as of May 2003;
11. Public Health Institute, Veljevo,
    DECISION ON MEASUREMENT OF IMMISSION as of August 2003;
12. Institute of Physics, Belgrade, 118, Pregrevica Street,
    DECISION ON MEASUREMENT OF IMMISSION as of February 2004;
13. University of Engineering in Belgrade, Laboratory for Fuels and Combustion,
    80, March 27 Street,
    DECISION ON MEASUREMENT OF EMMISSION as of February 2004;
14. IHTM – Center for Chemistry, Belgrade,
    12, Njegoseva Street,
    DECISION ON MEASUREMENT OF EMMISSION AND IMISSION as of August 2004;
15. Public Health Institute, Cacak
    DECISION ON MEASUREMENT OF IMMISSION No. 353-01-273/2003-02 of December 28, 2004.
16. Public Utility Company "Belgrade Power Plant"
    DECISION ON MEASUREMENT OF EMMISSION No. 353-01-281/2004-02 of December 13, 2004.

1.2. Upon entering of the Law on the Environmental Protection into force (″Official Gazette of the Republic of Serbia″, No. 135/04) - the authorizations is valid by December 31, 2006:

1. Mol, company for chemistry, biotechnology and consulting - 11-15, Knez Mihajlova Street, Belgrade, DECISION ON MEASUREMENT OF IMMISSION No. 353-01-01756/2004-02 of May 23, 2005;
2. Public Health Institute in Nis – 50, Brace Tankosica Boulevard, Nis
   DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00666/2003-02 of May 23, 2005;
3. Serbian Public Health Institute ″Milan Jovanovic Batut″ - 5, Dr. Subotica Street, Belgrade
   DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00725 /2005-02 of July 15, 2005;
4. Republic Hydrometeorological Service - 66, Kneza Viseslava Street, Belgrade
   DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00647/2005-02 of July 29, 2005;
5. Public Health Institute in Krusevac – 2, Vojvode Putnika Street, Krusevac
   DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00496/2005-02 of August 02, 2005;
6. Public Health Institute in Pancevo – 2, Pasterova Street, Pancevo
   DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00642/2005-02 of September 16, 2005;
7. Public Health Institute in Uzice – 4, Veselina Marinkovica Street, Uzice
   DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00446/2005-02 of September 30, 2005;
8. Public Health Institute in Uzice – 4, Veselina Marinkovica Street, Uzice
   DECISION ON MEASUREMENT OF EMMISSION No. 353-01-00445/2005-02 of September 2005;
9. Public Health Institute in Zajecar - 13, Sremska Street, Zajecar
   DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00646/2005-02 of October 31, 2005;
10. Public Health Institute of the City of Belgrade – 54a, Despota Stefana Street, Belgrade

DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00556/2005-02 of November 10, 2005;

11. Public Health Institute in Kraljevo – 16, Slobodana Penezica Street, Kraljevo
    DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00686/2005-02 of November 30, 2005:
12. Industrial Safety and Environmental Protection Company „Belgrade“ – 7, Deskaseva Street, Belgrade
    DECISION ON MEASUREMENT OF EMMISSION No. 353-01-01304/2004-02 of November 30, 2005;
13. Industrial Safety and Environmental Protection Company „Belgrade“ – 7, Deskaseva Street, Belgrade
    DECISION ON MEASUREMENT OF IMMISSION No. 353-01-01305/2004-02 of November 30, 2005;
14. Company for electric maintenance of boilers in power and industrial plants
    „SIMPE“ Ltd. – 60, Dusana Petrovica Saneta Street, Belgrade
    DECISION ON MEASUREMENT OF EMMISSION No. 353-01-00688/2005-02 of December 20, 2005.
15. „MD Design Institute“ Ltd. Nis – 11, Pukovnik Rajevski Street, Nis
    DECISION ON MEASUREMENT OF EMMISSION No. 353-01-01667/2006-02 of September 29, 2006;
16. Public Health Institute „Vera Blagojevic“ Sabac – 1, Jovana Cvijica Street, Sabac
    DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00746/2005-02 of January 27, 2006;
17. Mining Institute, Belgrade, Institute for Termotechnique, Ventilation and Environmental Protection
    2, Batajnicki Road, Belgrade, Zemun
    DECISION ON MEASUREMENT OF EMMISSION No. 353-01-00554/2005-02 of February 06, 2006;
18. Mining Institute, Belgrade, Institute for Termotechnique, Ventilation and Environmental Protection
    2, Batajnicki Road, Belgrade, Zemun
    DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00555/2005-02 of February 06, 2006;
19. Public Health Institute in Leskovac – 11, Maksima Kovacevica Street, Leskovac
    DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00436/2005-02 of February 08, 2006;
20. Public Health Institute in Zrenjanin – 15, Dr Emila Gavrila Street, Zrenjanin
    DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00093/2006-02 of February 10, 2006;
21. SMEEO engineering Ltd. Belgrade – 134, AVNOJ Boulevard, New Belgrade
    DECISION ON MEASUREMENT OF EMMISSION No. 353-01-01256/2005-02 of February 10, 2006;
22. Public Health Institute in Pozarevac – 14, Jovana Serbanovica Street, Pozarevac
    DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00541/2005-02 of February 23, 2006;
23. Public Health Institute – 30, Zmaj Jovina Street, Subotica
    DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00159/2006-02 of March 21, 2006;
24. «BIO-ECOLOGICAL CENTER» Zrenjanin – 15, Petra Drapsina Street, Zrenjanin
    DECISION ON MEASUREMENT OF EMMISSION No. 353-01-00157/2006-02 of March 21, 2006;
25. « BIO-ECOLOGICAL CENTER» Zrenjanin – 15, Petra Drapsina Street, Zrenjanin
    DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00158/2006-02 of March 21, 2006;
26. Belgrade Institute for Technology of Nuclear and Other Raw Materials

86, Fransa Deperea, Belgrade
DECISION ON MEASUREMENT OF EMMISSION No. 353-01-00557/2005-02 of March, 27, 2006;

27. Belgrade Institute for Technology of Nuclear and Other Raw Materials
86, Fransa Deperea Street, Belgrade
DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00558/2005-02 of March 27, 2006;
28. Public Health Institute in Novi Sad – 121, Futoska Street, Novi Sad
DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00422/2005-02 of April 04, 2006;
29. Public Health Institute in Pirot – Kej Street, Pirot
DECISION ON MEASUREMENT OF IMMISSION No. 353-01-02454/2005-02 of April 10, 2006;
30. Institute for Prevention, Industrial Safety, Fire Prevention and Development, Novi Sad, 11, Kraljevica Marka Street, Novi Sad
DECISION ON MEASUREMENT OF EMMISSION No. 353-01-00105/2006-02 of April 12, 2006;
31. Public Health Institute in Kikinda – 70 Kralja Petra I Street, Kikinda
DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00528/2006-02 of May 10, 2006;
32. Institute for Health Protection of Workers Novi Sad – 121, Futoska Street, Novi Sad
DECISION ON MEASUREMENT OF EMMISSION No. 353-01-00732/2006-02 of May 23, 2006;
33. Institute for Occupational Safety and Security, Ltd. Novi Sad – 11, Hajduk Veljkova Street, Novi Sad
DECISION ON MEASUREMENT OF EMMISSION No. 353-01-00554/2006-02 of June 16, 2006;
34. Public Health Institute in Sombor – 47, Vojvodjanska Street, Sombor
DECISION ON MEASUREMENT OF IMMISSION No. 353-01-00208/2006-02 of June 16, 2006;
35. Institute for Safety and Preventive Engineering Ltd. – 119, Temerinska Street, Novi Sad
DECISION ON MEASUREMENT OF EMMISSION No. 353-01-01088/2006-02 of July 07, 2006;
36. SP Laboratory Becej - Industrial Zone, Becej
DECISION ON MEASUREMENT OF EMMISSION No. 353-01-01025/2006-02 of July 25, 2006;
37. SP Laboratory Becej - Industrial Zone, Becej
DECISION ON MEASUREMENT OF IMMISSION No. 353-01-01043/2006-02 of July 25, 2006;
38. «Institute for Occupational Safety» Novi Sad – 3, Skolska Street, Novi Sad
DECISION ON MEASUREMENT OF EMMISSION No. 353-01-01026/2006-02 of July 26, 2006;
39. « Institute for Occupational Safety » Novi Sad – 3, Skolska Street, Novi Sad
DECISION ON MEASUREMENT OF IMMISSION No. 353-01-01044/2006-02 of July 26, 2006;
40. Institute Fireman Novi Sad – 19A, Lozionicka Street, Novi Sad
DECISION ON MEASUREMENT OF EMMISSION No. 353-01-01322/2006-02 of September, 15 2006;
41. Holcim (Serbia) Popovac
DECISION ON MEASUREMENT OF EMMISSION No. 353-01-00772/2006-02 of October 05, 2006.

2. Institution, whose Decisions ("Official Gazette of SRS", No.27/73,14/74,47/74,24/78, 52/80) are in the revision process, but still valid (completed documentation, organized Commission field visits) are:
   1. Geoinstitute, Belgrade;
   2. Chemical Industry "Zorka", Sabac
   3. „1st May" Institute for Working and Living Environment Quality, Nis
   4. Mol, for chemistry, biotechnology and consulting.

9.1.3 Procedure for Acquiring Licenses for Professional Organizations for Waste Testing

Professional institutions submit applications to get the license to the Ministry of Environment and Spatial Planning on the pre-stamped form along with the Guideline containing conditions to be met by the professional institutions and other legal entities testing waste as its integral part. Commission formed by the Ministry of Environment and Spatial Planning determines whether professional institutions and other legal entities performing testing and/or classification of waste meet conditions.

Upon receiving of the applications, the Commission review the received documentation and then visits the laboratories to verify statements made by the institutions, submitted along with the application in terms of human resources, equipment, premises and data keeping methods and determines competences in waste testing. Upon insight into documentation and visit to the laboratories, it is recorded in the minutes the current state and the Decision is made in conformity with the legal regulation.

<u>List of institutions authorized by the Ministry of Environment and Spatial Planning</u>

- Zastava – car factory – Central Laboratory, Trg Topolivaca 4, Kragujevac
- Institute for Testing Materials – Center for Materials, Laboratory for Testing Materials, 43, Vojvode Misica Boulevard, Belgrade
- Public Health Institute of the City of Belgrade, 54a, Despota Stefana Boulevard, Belgrade

Table 9.A3: List of Laboratories Provided with Technical Capacities and Providing Commercial Services for POPs Analysis

Name of Laboratory	Address/Contact Person/Tel./Fax/E-mail	Equipment for analysis of POPs chemicals	Accreditation
Public Health Institute of the City of Belgrade	54a, Despota Stefana Boulevard 11000 Belgrade Marina Mandic-Miladinovic, PhD Tel.:011 32 35 080 Fax:011 32 35 080 e-mail: marina.mandic@zdravlje.org.yu	capillary column + ECD (Electron capture detection) capillary column + MSD (Mass selective detection)	POPs pesticides in water, air, soil, sediment, food products and biota – JUS ISO 17 025 HCB in water, air, soil, sediment, food products and biota – JUS ISO 17 025 PCB in water, air, soil, sediment, food products and biota – JUS ISO 17 025 PCDD/PCDF in water, air, soil, sediment, food products and biota – JUS ISO 17 025
Institute of Public Health of Serbia «Milan Jovanovic Batut» Laboratory for Eco-toxicological Diagnostics	5, Dr Subotica Street, 11000 Belgrade Svetlana Labus Blagojevic Tel.:011 2684 566 Fax: 011 68 55 93 e-mail: Labuss@batut.org.yu www.batut.org.yu	capillary column + ECD (Electron capture detection) capillary column + MSD (Mass selective detection)	POPs pesticides in food products and water – JUS ISO 9001:2001, JUS ISO/IEC 17025 HCB in food products and water - JUS ISO 9001:2001, JUS ISO/IEC 17025 PCB in food products and water - JUS ISO 9001:2001, JUS ISO/IEC 17025
"Bio-Ecological Center", Zrenjanin	15, Petra Drapsina Street 23000 Zrenjanina Miljkovic Aleksandra Tel.: 023 545-722; 543-712: 523-156 Fax: 023 523-158 e-mail: labbec@bioec.co.yu, bioekoloski@bioec.co.yu www.bioec.co.yu	capillary column + MSD (Mass selective detection)	POPs pesticides in food, water, vegetation – JUS ISO/IEC 17025 HCB in food, water, vegetation – JUS ISO/IEC 17025
Institute for Nuclear Science "Vinca" Laboratory for Chemical Dynamic and Permanent Education	12-14, Mike Alasa Street, 11000 Belgrade Djuro Cokesa Tel.:011 3447 278 Fax: 011 3447 278	capillary column + MSD (Mass selective detection)	-

	e-mail: lab060@vin.bg.ac.yu http://www.vin.bg.ac.yu/060/index_s.htm		
Faculty of Sciences, Novi Sad Department for Chemistry	3, Dositeja Obradovica Square 21 000 Novi Sad Jelena Trickovic, M.Sc Tel.: 021 450 041 Fax: 021 454 065 e-mail: bozo@ih.ns.ac.yu www.ih.ns.ac.yu	capillary column + ECD (Electron capture detection)	-
Anahem, Belgrade	8, Mocartova Street 11 160 Belgrade Antonije Onjia Tel.: 011 3422 800 Fax: 011 3422 800 e-mail: anhem@eunet.yu www.anahem.co.yu	capillary column + MSD (Mass selective detection)	-

Institutions Licensed for Poison Toxicological Assessment

Conditions to be met by legal entities performing poison toxicological evaluation are regulated by Articles 12, 13, 14 and 16 of the Law on Production and Trade of Poisons ("Official Gazette of FRY" No. 15/95, 28/96 and 37/02) and Regulations on the Conditions to be Fulfilled by Organizations that Issue Toxicological Certificates (Assessments) of Poisons and Organizations that Evaluate Poison Efficacy ("Official Gazette of SFRY" No. 22/92).

Table 9.A4: List of Authorized Institutions for Poison Toxicological Evaluation

No.	Name of Institution	Address	Telephone/Fax	Contact Person
1.	University of Agriculture	6, Nemanjina Street, Zemun, Belgrade	Tel.: 011 2615-315/ext.216 011 3161-496 Fax: 011 2193-659	Prof Slavoljub Vitorovic, PhD
2.	Biological Research Institute «Dr Sinisa Stankovic»	12, Despota Stefana Street, Belgrade,	Tel: 011 2764-422	Ranka Popovic, PhD, Prof Marko Andjelkovic, PhD
3.	Agricultural Research Institute «Serbia»	31b, Banatska Street, Zemun, Belgrade	Tel.: 011 3076-133 011 3076-136	Marina Vuksa, PhD, Prof Nesto Neskovic, PhD
4.	Military Medical Academy (VMA)	17, Crnotravska Street, Belgrade	Tel.: 011 3672-187 011 2662-755, 011 26116-824 ext. 26198	Prof Dragan Joksovic, PhD
5.	University of Pharmacy Institute for toxicology academic Danilo Soldatovic	450, Vojvode Stepe Street, Belgrade	Tel: 011 3951 250, 011 3951251	Prof Biljana Antonijevic, PhD Prof Vesna Matovic, PhD
6.	University of Medicine	1, Dr Subotica Street, Belgrade P.O.B. 662	Tel.: 011 684-479 011 686-025 Fax: 011 684-479	Prof Ranka Samardzic, PhD
7.	University of Medicine	3, Hajduk Veljkova Novi Sad	Tel.: 021 22-172 Fax: 021 615-771	Prof Ana Sabo, PhD
8.	University of Agriculture Institute for Plant Protection	8, Dositeja Obradovica Square, Novi Sad	Tel.: 021 6350-366	
9.	Institute for Plant Protection and Environment	9, Teodora Drajzera Street, Belgrade	Tel.: 011 2663-672 Fax: 011 2669-860	
10.	University of Veterinary Medicine	18, Boulevard Oslobodjenja, Belgrade	Tel.: 011 3615-436, ext. 373 Fax: 011 2685-936	Prof Vitomir Cupic, PhD

Institutions Licensed for Poison Effectiveness Evaluation

Table 9.A5: List of Authorized Institutions for Poison Effectiveness Evaluation

No.	Name of Institution	Address	Telephone/Fax	Contact Person
1.	University of Agriculture	6, Nemanjina Street, Zemun, Belgrade	Tel.: 011 2615-315/ext.216 011 3161-496 Fax: 011 2193-659	Prof Slavoljub Vitorovic, PhD
2.	Biological Research Institute «Dr Sinisa Stankovic»	12, Despota Stefana Street, Belgrade,	Tel.: 011 2764-422	Ranka Popovic, PhD, Prof Marko Andjelkovic, PhD
3.	Agricultural Research Institute «Serbia»	31b, Banatska Street, Zemun, Belgrade	Tel.: 011 3076-133 011 3076-136	Ilija Peric, PhD
4.	University of Forestry (authorized to provide poison effectiveness evaluation concerning wood protection)	1, Kneza Viseslava Street, Belgrade	Tel.: 011 35-53-122 Fax: 011 25-45-485	Prof Ljubodrag Mihajlovic, PhD
5.	Institute of Preventive Medicine, VMA	17, Crnotravska Street, Belgrade	Tel.: 011 2661-122	Novica Stajkovic, PhD
6.	University of Veterinary Medicine	18, Boulevard Oslobodjenja, Belgrade	Tel.: 011 3615-436, ext. 373 Fax: 011 2685-936	Prof Vitomir Cupic, PhD
7.	University of Agriculture – Department for Plant Protection and Environment	8, Dositeja Obradovica Square, Novi Sad	021 6350-366	Prof Marija Zgomba, PhD
8.	University of Medicine	3, Hajduk Veljkova Novi Sad	Tel: 021 22-172 Fax: 021 615-771	Prof Ana Sabo, PhD

Authorized institution for poisoning control – Institute for chemistry, technology and metallurgy – Center for chemistry, Belgrade, 12-16, Studentski trg street

9.2 Review of Computer Capabilities of State Bodies and Institutions

The governmental bodies are well provided with basic modern computer equipment. Most of computers are linked within the institution, employees have «on-line» access to the internet and use e-mail. In research institutes and university as well as in institutes of public health and other medical institutes there is insufficient number of computers, so there is a need to improve the current state of affairs.

9.3 Review of University Curricula dealing with Chemicals

An important factor for the successful implementation of objectives in terms of sound chemicals management significant for sustainable development represents qualified scientific and professional human resources, which will be ensured through improvement of curricula in secondary chemical schools, modernization of curricula and teaching methods at the university and setting of a system of

permanent skill improvement. Besides the technical disciplines, an important role in curricula should be given also to other fields, such as environment, economy, project management, quality environmental quality management, jurisprudence. Hence, it will ensure keeping track of modern trends and new technology development that are important for the chemical sector.

In Serbia, there are secondary chemical schools for chemical technicians that usually find employment in the industry or companies dealing with trading in chemicals. In addition, there are medical, pharmaceutical, dental and veterinary secondary/high schools, which educate pupils for sound chemicals management.

At the University level in Serbia, chemistry is taught at five Universities of Chemistry dealing with education and scientific activities located in Belgrade, Novi Sad, Nis, Kragujevac and Pristina. At the University of Chemistry in Belgrade, there are six departments: organic, inorganic and analytic chemistry, biochemistry, department for chemistry teachers and applied chemistry. The University of Chemistry offers four undergraduate degrees: graduate chemist, graduate chemistry teacher; graduate biochemist and graduate environmental chemist. The environmental group is relatively newly established due to the real needs of the society for experts in this field. Besides general main chemical subjects students learn also narrowly professional subjects such as environmental issues (polluters and pollution, preventive measures for pollution of water, air, food and soil, environment quality management and legal framework) as well as toxicology and ecology (more details are available on the www.chem.bg.ac.yu)..

At University of Pharmacy in Belgrade, subjects such as Toxicology with analytics, Toxicological chemistry, Clinical – toxicological analyses, Risk assessment to human health, Ecotoxicology, Genotoxicology, Environment and sustainable development indicators, Sanitary chemistry as well as Control of heath safety of food are studied. However, there is no undergraduate degree of graduate toxicologists. The Belgrade University of Medicine has an undergraduate degree with study in professional toxicology, emergency toxicology and ecotoxicology, but very small number of people, 30-40 of them, acquires this degree. Unfortunately, toxicology is not considered as an important within the basic studies, it has been studied as a part of pharmacology (medicine toxicology), hygiene (ecotoxicology, but with attention to metals, not to substances which are present in environment), forensic medicine and occupational medicine (professional toxicology with focus on metals and pesticides). Within new program for studies, urgent toxicology is planned as a new optional subject who is a big progress comparing to current situation, but still do not correspond to real problems and situations that arise from everyday duties of doctors.

Tuition on Toxicological chemistry started in 1946 on Pharmaceutical faculty in Belgrade. Only on this faculty, students can obtain knowledge from several areas of toxicology (occupational, forensic, clinical toxicology, toxicology of phosgene, pesticides, drugs, ecotoxicology). Toxicology has been studied within pharmacist master studies and pharmacist-medical biochemist master studies, which include obligatory subjects (toxicology with analytics and clinical-toxicology analysis) as well as optional subjects (narcotics with analytics, human health risk assessment, environmental pollution and sustainable development indicators). Within master studies, Institute for toxicology ”Academic Danilo Soldatovic” organize sanitary specialization of Toxicological chemistry which lasts for 36 months and doctor studies in toxicology for which the programme was adopted by university.

The area of plant protection is studied at the undergraduate studies at the University of Agriculture in Belgrade and Novi Sad.

At the University of Technology and Metallurgy in Belgrade, there are departments for chemical engineering, organic chemical technology and polymer engineering, analytic chemistry, general and inorganic chemistry, biochemical engineering and environmental engineering.

It should be noted that there are no specific trainings of government employees dealing with chemicals management from the administrative aspect.

9.4 Comments and Recommendations

The overview of the laboratory infrastructure shows that there are significant shortages in adequate technical capacities of laboratories i.e. licensed institutions for qualitative and quantitative chemicals testing and risk assessment from chemicals to human health and the environment. There is need to develop a detailed study to review requirements imposed by new regulations in terms of the chemicals management on the basis of information on the current state of laboratory capacitates. The study should also cover a possibility for rational use of the existing and new laboratory equipment and existing human resources.

Considering that the national system verifying whether laboratories implement the good laboratory practice is not in place, it is needed that the Ministry of Health through the Ministry of Economy and regional development launches an initiative to establish cooperation with a working group of Organization for Economic Co-operation and Development (OECD) dealing with establishment of good laboratory practice. That is necessary in order to establish in Serbia a national system verifying whether laboratories implement the good laboratory practice, which will be regulated by a new law regulation concerning chemicals harmonized with the EU regulations. Number of laboratories that will be eligible to acquire GLP certificate is small and it is to expect that laboratories will not be testing only one types of chemicals (plant nutrition agents, plant protecting agents, biocides, industrial chemicals) covered by certain laws, so there is no need to regulate chemicals testing by different laws. Considering the limited number of laboratories that will be provided with the GLP certificate and the fact that the testing performed by those laboratories will be required by different laws, there is a need to develop a study proposing the most efficient and rational introduction of the GLP system in our country that will be recognized by the OECD working group for the good laboratory practice.

The current system of authorization of legal entities to perform chemical testing by competent governmental bodies, as stated in the regulations in force, based on verification of equipment, staff and premises should be replaced by a procedure of accreditation of certain analytical methods. The Draft National Environmental Protection Program proposes that laboratories should be accredited in conformity with the international standards ISO/IEC 17025, i.e. certified in line with the good laboratory practice. Moreover, it proposes establishment of a reference laboratory and applying of single analyzing and testing procedure.

Based on information from the Ministry of Agriculture, Forestry and Water Management, there is an ongoing process of establishment of the National Reference Phytosanitary Laboratory in Batajnica. As regards pesticides, the National Reference Laboratory will deal with residues, micotoxins, heavy metals and physical and chemical properties of pesticides in the process of registration and preparation of methodology for pre-registration inspection and coordination of pre-registration inspection. Within the NRPL there will be equipping and education of five regional laboratories for pesticide effectiveness for the plant health, physical and chemical properties in the process of pre-registration inspection (inspection sampling, in conformity with annual planned inspections). However, when establishing and organizing work of these new laboratories, one should take into consideration testing requirements that will be imposed by the new law on biocides.

Since the Ministry of Infrastructure has defined the lack of regulations governing authorization procedures for testing of packaging, containers and tanks for transport of dangerous goods as one of the important issues, there is need to introduce accreditation of methodologies for the afore-said testing.

X CHAPTER: CHEMICAL EMERGENCY PREPAREDNESS, RESPONSE AND FOLLOW-UP

10.1 Chemical Emergency Planning and Response

The Law on the Protection from Natural and other Large-scale Disasters („Official Gazette of SRS", No. 20/1977, 24/1985, 27/1985, 6/1989, 52/1989 and „Official Gazette of RS", No. 53/1992, 67/1993, 48/1994)) outlines provisions for emergency preparedness on national and local level. This Law obliged the competent authorities on national and local level to prepare and implement off-site contingency plans.

At the national level, the country has a National Plan for Emergency Situations, which also covers disasters with transboundary effects. This plan is prepared and implemented by the Ministry of Defense.

The Ministry of Defense and Department for Emergency Situations also comprises a local centre for accident notification. The local communities are obliged to prepare an off-site contingency plan that covers major hazard installations. Enforcement of this obligation is done by the Inspection of the Ministry of Defense.

According to the Law on Local Self-Government („Official Gazette of RS", No. 129/07), the president of the municipality is responsible for response actions during an emergency.

According to the Law on Environmental Protection („Official Gazette of RS", No. 135/04) the operators of major hazard installations have the obligation to prepare and implement an on-site contingency plan and to review it regularly. This plan has to be approved by the Ministry of Environment and Spatial Planning.

Fore better responding in case of accident, many activities are taken such as organizing of workshops and trainings for staff of fire services and members of mobile ecotoxicological units involved in implementation of regulations on major accidents prevention, preparedness and response.

10.2 Overview of Chemicals Accidents

Table 10.A: List of chemical incidents that have occurred in 2007
(Source: Report of Mobile Eco-toxicological unit of the Public Health Institute of the City of Belgrade and Republic Environmental Inspection)

Date of accident	Location	Type of accident	Chemical (chemicals) involved in accident	D: number of deaths I: number of injuries E: number of evacuated	Pollution and damage in environment
01.-05.02.2007	Pancevo Oil Rafinery, Petrohemija	Episode air pollution from industry	Benzene and other volatile aromatic hydrocarbons	D: 0 I: 0 E: 0	Episode air pollution
13.-15.03.2007.	Ljig, Company „Hamilton"	Accident emission of paint in soil and brook Todorevac and river Ljig	According to results of laboratory analysis of samples it can	D: 0 I: 0 E: 0	Pollution of soil, brook and river

			be concluded that paint did not contain hazardous chemicals from group of highly volatile aromatic hydrocarbons and organic solvents.		
29.-30.03.2007.	Batajnica Electronic industry Complex	Fire in chemicals warehouse of „Herman“ company in Batajnici	Hg, KCl, xylene, toluene, methanol, etc.)	D: 0 I: 2 E: 0	Air pollution
10.-12.05.2007.	Edible oil factory „Mladost“ Šid	Accident leakage of hydrochloric acid (34%) from damaged reservoir into surrounding soil	Hydrochloric acid (34%)	D: 0 I: 0 E: 0	Soil pollution
20.05.2007	Train station Mladenovac	Accident gasoline leakage from tank wagon in train composition that was transporting oil derivates on relation Resnik-Nis	Gasoline		No obtained data
04.06.2007.	Ulica Vidska – Petrovaradinska, Belgrade	Discovering of plastic barrel containing thioglycolic acid and other chemicals in city building site	thioglycolic acid and other chemicals	D: 0 I: 0 E: 0	Air pollution
07.06.2007	Cooler «Vocar» Svilajnac	Accident ammonia leakage from cooling installation	Ammonia	D: 0 I: 0 E: 0	Air pollution
21.06.2007.	Customs terminal – Vrsac	Leakage of 1800 liters sodium hydroxide after the accident	sodium hydroxide	D: 0 I: 0 E: 0	soil contamination
15.07.2007.	Veliki Crljani-power plant	Dam braking	Ash with arsenic	D: 0 I: 0 E: 0	river pollution
21.07.2007.	Padinska skela, Belgrade	Three tank wagons containing propane-butane went out off the rails	Propane-butane	D: 0 I: 0 E: 0	Air and soil pollution
29.07.2007	Skrapez river, Pozega	Fish poisoning due to outflow of waste water from industry	waste water from industry which uses boric acid, HCl, NaOH	D: 0 I: 0 E: 0	river pollution
30.07.2007	Train station, GP Kelebija	Leakage from tank wagon containing white spirit	white spirit		no data
31.07.2007.	Road Batocina-Kragujevac	Turnover of track and cistern and leakage of 24 tones of fuel oil	Oil products	D: 0 I: 0 E: 0	soil pollution
21.-25.08.2007.	Kursumlija	Pollution with waste materials from wood industry. ŠIK „Kopaonik“	Waste materials	D: 0 I: 0 E: 0	Contamination of surface water of rivers Toplica and Banjske, riverside soil and river bed as well as

					atmosphere of Kursumlija
25.-30.08.2007.	Surdulica	Air pollution from activities of industrial complexes	Phenol, formaldehyde, PAH, suspended particles	D: 0 I: 0 E: 0	Episodic air pollution
28.08.2007. do 01.10.2007.	"HIP Azotara d.o.o." Pancevo	Air pollution from industry	Ammonia and nitrogen oxides	D: 0 I: 0 E: 0	Episodic air pollution
06. 09. 2007.	Milk industry "Imlek" a.d. in Kraljevo	Accident ammonia leakage from cooling installation in milk factory	Ammonia	D: 0 I: 0 E: 0	Air pollution
13.09.2007.	Company "FRUVELA" DOO Lajkovac	Ammonia leakage from cooling installation	Ammonia	D: 0 I: 6 E: 0	Air pollution of working area
30.09.2007.	Road to Nova Varos	Turnover of cistern containing euro-diesel	Oil products	D: 0 I: 0 E: 0	soil pollution
08.10.2007.	Road to Horgos	Leakage of oil from reservoir of cooler track after its turnover during transport	Nafta	D: 0 I: 0 E: 0	soil pollution
13.-15.10.2007.	Cooler „Fruvela“ – Lajkovac	Accident ammonia leakage from damaged pipeline	Ammonia	D: 0 I: 0 E : 0	Air pollution of work area
02.11.2007.	Zeleznik	Mechanical damage of pipeline for propane-butane	Propane-butane	D: 0 I: 0 E: 0	Presence of odour
18.11.2007.	Sopot, Belgrade	Fire in Foundry DMB due to breakage of foundry furnace and leakage of alloy			no data
25.11.2007.	O.D. oil refinery Pancevo, street Spoljnostarcevacka br. 199	Disruption on reflux line of atmospheric distillation of crude oil in block 6			no data
14.12.2007.	NIS Petrol, Vareska BB, Rakovica, Belgrade	Uncontrolled leakage of 2 tones of dangerous waste obtained during reservoir cleaning	Gasoline and organic solvents	D: 0 I: 0 E: 0	Breach into canalisation and surface water
14.12.2007.	Airport „Nikola Tesla“, Belgrade	Release of kerosene and forced landing of airplane on Belgrade-Vienna line	Kerosene	D: 0 I: 0 E: 0	Pollution of air and soil

[1] For “Location”, give the name of the place, e.g. town and the region/province.

[2] “Type of Incident” could be: industrial accident/fire; transport (road, rail, waterways, air) accident, fire, spill; warehouse/storage site fire; contamination of drinking water, food, medicines, other consumer goods; chemical misuse; natural disaster involving chemicals; terrorist attack; etc.

[3] Chemicals involved could be one individual (e.g. chlorine) or a group of chemicals (e.g. pesticides, PCBs); a natural occurring chemical or toxin (e.g. arsenic in drinking water, aflatoxins, toxic algae in red tide incidents), or a large mixture (e.g. in a fire, when material being burned should be given).

[4] Environmental contamination or damage should be described briefly, e.g. air pollution; drinking/ ground water, river, lake, sea pollution; soil contamination; destruction of plants, woodlands, commercial crops; loss of wild life or commercial animals (cattle, sheep, goats, horses, camels, etc.).

XI CHAPTER: INTERNATIONAL LINKAGES

11.1 Ratified International Agreements concerning Chemicals
11.2 Co-operation and Involvement with International Organizations, Bodies and Agreements
11.3 Participation in Relevant Technical Assistance Project
11.4 Comments and Recommendations

11.1 Ratified International Agreements concerning Chemicals

- **Law on Ratification of Basel Convention on the Control of Transbordary Movements of Hazardous Wastes and their Disposal** ("Official Gazette of FRY - International Agreements", No. 2/99)
- **Law on Ratification of the Montreal Protocol on Substances That Deplete the Ozone Layer** ("Official Gazette of SFRY - International Agreements", No. 16/90 and Amendments to the Montreal Protocol ("Official Gazette of Serbia and Montenegro - International Agreements", No.2/04)
- **Law on Ratification of the Vienna Convention for the Protection of the Ozone Layer, with Annexes I and II** ("Official Gazette of SFRY - International Agreements", No.1/90)
- **Law on Ratification of the Treaty on Pollution Protection of the Tisa River Waters and its Tributaries** ("Official Gazette of SFRY - International Agreements", No.1/90)
- **Law on Ratification of the Convention on Long Range Transboundary Air Pollution** ("Official Gazette of SFRY - International Agreements", No.11/86)
- **Law on Ratification of the Convention on Long Range Transboundary Air Pollution on Financing of the Cooperative Program for Monitoring and Evaluation of the Long-range Transmissions of Air Pollutants in Europe (EMEP)** ("Official Gazette of SFRY - International Agreements", No. 2/87)
- **Decree on Ratification of the Convention Concerning Protection Against Hazards of Poisoning Arising from Benzene**
  ("Official Gazette of SFRY"- International Agreements, No.16/76)
- **Law on Ratification of the Convention Concerning Prevention and Control of Occupational Hazards Caused by Carcinogenic Substances and Agents**
  ("Official Gazette of SFRY"- International Agreements, No. 3/77)
- **Agreement on Ratification of the Convention and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction** ("Official Gazette of SFRY"- International Agreements, No.43/74)
- **Law on Ratification of the Convention Concerning the Protection of Workers Against Occupational Hazards in the Working Environment due to Air Pollution, Noise and Vibration**
  ("Official Gazette of SFRY"- International Agreements, No.14/82)
- **Law on Ratification of the Convention Concerning Occupational Safety and Health and the Working Environment** ("Official Gazette of SFRY"- International Agreements, No.7/87)
- **Law on Ratification of the Convention Concerning Occupational Health Services**
  ("Official Gazette of SFRY"- International Agreements, No. 14/89)
- **Law on Ratification of the Convention Concerning Safety in Use of Asbestos**
  (Official Gazette of SFRY"- International Agreements, No. 4/89)
- **Law on Ratification of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and their Destruction** ("Official Gazette of Serbia and Montenegro - International Agreements", No.2/00).
- **Regulation on Ratification of the European agreement on International Transportation of Dangerous Goods and protocol on signification of European agreement on International Transportation of Dangerous Goods** ("Official Gazette of SFRY"- International Agreements, No.59/72,8/77)

- **Regulation on ratification Convention concerning International Carriage by Rail (COTIF)** ("Official Gazette of SFRY"- International Agreements, No.8/84)

11.2 Co-operation and Involvement with International Organizations, Bodies and Agreements

Table 11.A: Membership in International Organizations, Programs and Bodies

International Organizations/Bodies/Activities	National Focal Points (Ministry/ Agency & Primary Focal Points)	Other Ministries/ Agencies Involved	Related National Activities
International Forum of Chemical Safety (IFCS)	Ministry of Environment and Spatial Planning	/	/
Strategic Approach to International Chemical Management (SAICM)	Ministry of Environment and Spatial Planning Valentina Radjenovic	/	Approved project by the SAICM Quick Start Program «Update National Profiles, Development a National SAICM Capacity Assessment and Hold a National SAICM Priority-Setting Workshop»
UNEP	Ministry of Environment and Spatial Planning	Ministry of Agriculture, Forestry and Water Management	Activities concerning chemicals management, biodiversity, genetically modified organisms, ozone layer, decertification, wastes
European Environment Agency, Working Group for Chemicals	Environmental Protection Agency, Nebojsa Redzic, M.Sc	/	Participation in activities of the working group and preparation of necessary data for reporting
UNECE Working group for implementation of the Protocol on Pollutant Release and Transfer Registers (PRTR) of the Aarhus Convention	Environmental Protection Agency, Nebojsa Redzic, M.Sc	/	Participation in activities of the working group and preparation of necessary data for reporting
World Health Organization is the United Nations (WHO)	Ministry of Health	/	/
WHO-Industrial Medicine Collaborative Center	Ministry of Health	/	/
WHO-CEHAP	Ministry of Environment and Spatial Planning and Ministry of Health; Biljana Filipovic and Srmena Krstev	Environmental Protection Secretariat of the City of Belgrade (Elizabet Paunovic)	Drafting of the Action plan for the environment and children health - one of four objectives is to reduce risks from falling ill and invalidity of children caused by exposure to hazardous chemical substances
Food and Agriculture Organization of the United Nations (FAO)	Ministry of Agriculture, Forestry and Water Management	/	/
United Nations Industrial Development Organization (UNIDO)	Ministry of Economy and Regional Development	Ministry of Labor and Social Policy	/
International Labor Office (ILO)	Ministry of Labor and Social Policy	/	/

World Bank	Ministry of Finance	National Bank of Serbia	/
Organization for Economic Co-operation and Development (OECD)	Ministry of Economy and Regional Development	/	/
Regional Economic Commission (UNECE)	Ministry of Economy and Regional Development	/	/
European and Mediterranean Plant Protection Organization (EPPO)	Ministry of Agriculture, Forestry and Water Management - Directorate for Plant Protection Snezana Savcic - Petric	/	/
MEDICHEM (Occupational and Environmental Health in the Production and Use of Chemicals)	Institute for Occupational Health „Dr Dragomir Karajovic“	/	/
International Commission on Occupational Health (ICOH)	Institute for Occupational Health „Dr Dragomir Karajovic“	/	/
Expert commission concerning RID	Ministry of Infrastructure, Dejan Tomic, Advisor for safety of RID/ADR	Railway Directorate	Translation of international regulations
OTIF/COTIF	Ministry of Infrastructure	Railway Directorate	Translation of international regulations
Organization for the Prohibition of Chemical Weapons (OPCW)	Ministry of Foreign Affairs and Ministry of Interior Affairs – Commission of the Republic of Serbia for implementation of the Convention on Chemical Weapons	/	/

Table 11.B: Participation in International Agreements/Procedures Related to Chemicals Management

International Agreements	Primary Responsible Agency	Relevant National Implementation Activities
Agenda 21 - Commission for Sustainable Development	Ministry of Environmental Protection - Environmental Protection Agency	Monitoring of national indicators concerning sustainable development and development of annual report thereof
Vienna Convention for the Protection of the Ozone Layer Montreal Protocol of ozone depleting substances	Ministry of Environment and Spatial Planning	Implementation of the project funded by the Multilateral Fund concerning pass out of use of ozone depleting substances. Regular reporting to the Ozone Secretariat within United Nations Environment Programme on foreign trading in ozone depleting substances. Issuing of export permits for ozone depleting substances.
ILO Convention 170	Ministry of Labor and Social Policy	/
Basel Convention	Ministry of Environment and Spatial Planning	/
WTO agreement	Ministry of Economy and Regional	There are ongoing negotiations

	development Ministry of Environment and Spatial Planning	between Serbia and WTO on goods and services. A Plan for Serbia is to access WTO in 2008.
Stockholm Convention on Persistent Organic Pollutants (POPs)	Ministry of Environment and Spatial Planning	Development of the Stockholm Convention National Implementation Plan financed by GEF and UNEP is the implementation agency
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade	Ministry of Environment and Spatial Planning	Issuing of prior informed consent for import of hazardous chemicals and pesticides referred to in the Convention;
Chemical Weapon Convention	Commission of the Republic of Serbia for implementation of the Chemical Weapon Convention (Government body – interministerial -A Commission Chairperson is from the Ministry of Foreign Affairs), Government Decision (Official Gazette of the Republic of Serbia, No. 69/06)	Law on Prohibition of Development, Manufacturing, Stockpiling and Use of Chemical Weapons and their Destruction ("Official Gazette of SM" No. 44/05); new Law of the Republic of Serbia in the procedure for adoption. Law on Foreign Trade of Weapons, Military Equipment and Dual-Use Goods, ("Official Gazette of SM", No. 7/20 05; Producing of annual declaration on import and export of dual-use substances referred to in the convention and plants manufacturing discrete organic substances.
ADR-European Agreement on Transport of Dangerous Goods by Road RID-Convention on International Transport of Dangerous Goods by Rail ADN-European Agreement on International Transport of Dangerous Goods by Inland Waterways IMDG-International Maritime Dangerous Goods Code	Ministry of Infrastructure	Monitoring and implementation into the national legislation
International Plant Protection Convention (IPPC)	Ministry of Agriculture, Forestry and Water Management Directorate for Plant Protection	/

11.3 Participation in Relevant Technical Assistance Projects

Table 11.C: Participation in International Technical Assistance Projects

Name of Project	International/Bi-lateral Donor Agency Involved	National Contact Point	Objectives / Relevant Activities
Development of the Stockholm Convention National Implementation Plan on POPs	UNEP-GEF	Ministry of Environment and Spatial Planning (Project Coordinator - Prof. Ivan Grzetic, national contact point - Valentina Radjenovic)	Preparation of the Stockholm Convention National Implementation Plan; Development of a system for reporting on fulfillment of obligations inherent in the convention; Strengthening of administrative and institutional capacities for POPs chemicals management

Implementation of the Protocol on Pollutant Release and Transfer Registers (PRTP Protocol of the Aarhus Convention) in Serbia	REC, office for Serbia	Ministry of Environment and Spatial Planning - Environmental Protection Agency (contact point: Nebojsa Redzic, M.Sc)	Establishment and maintenance of the register of polluters; adoption of by-laws regulating closely establishment of the register such as: Regulation on unified register of polluters, Guidance for reporting needed for unified register of polluters, Guidance for data quality assessment, Guidance for data confidentiality assessment and Guidance for access to data from the register.
Development of a system of chemical accident response	European Agency for Reconstruction	MESP - Department for Risk Management and Chemical Accident Response (coordinator: Stevo Tubic)	Development of a new Regulation on Methodology for Chemical Accident Risk Assessment involving dangerous goods and conditions for accident risk management. The Regulation will be in line with the Law on Environmental Protection of 2004 and Seveso Directive.
Equipping mobile ecotoxicological units (MEJ) and emergency fire services in Serbia to be able for chemical accident response in case of transport of dangerous goods	Donation by the Italian Government 1,500,000.00 EUR	MESP and Serbian Public Health Institute	Equipping mobile ecotoxicological units (MEJ) and emergency fire services in Serbia to be able for chemical accident response in case of transport of dangerous goods
Chemicals risk management in Serbia 2007-2010	Donation by the Swedish International Development Cooperation Agency (SIDA) 760 000 EUR	MESP- Department for chemicals	Establishment adequate institutional capacitates and creation of appropriate administrative tools (organization of helpdesks for industry and development of technical guidance in order to obtain proper enforcement of chemicals legislation harmonized with EU legislation as well as development of inventory of chemicals placed on the market in electronic data base) for achievement of adequate chemicals control
Strengthening of administrative and institutional capacities of laboratories within the food chain	European Agency for Reconstruction, Contract: SR 2005/IB/AG/04	Ministry of Agriculture, Forestry and Water Management	Establishment of the Agency for Laboratories in food chain – development and review of strategic action plans, training of the existing staff and employment of new personnel, development and review of management and quality control procedures, setting of the reporting system, preparation of a strategy for introduction of the information system. Harmonization with EU standards and good practice concerning food safety - development of lab procedures, including implementation of the quality management system and ISO accreditation, training of staff in specific labs, participation in comparative analysis, establishment

			of procedures for lab waste management. Development of capabilities and capacities of laboratories to perform testing in the food chain to meet requirements of the national and EU regulations, through implementation of quality management system, in terms of future strategic business planning, further development and integration of labs dealing with testing of food and beverage into the national laboratory system, increasing knowledge regarding auditing recommendations or modification of EU acquis communitarian in the field of food safety and food testing.
Exposure to polycyclic aromatic hydrocarbons in food and monitoring of DNA damage	European Commission Contract No 505609, City of Belgrade «in kind contribution»	Institute of Nuclear Sciences - Vinca	Development of a study on evaluation of PAHs impact to the DNA damage in Serbia
First harmonization with the Acqui communitaire concerning transport	EU Fund «Twinning project»	Ministry of Infrastructure, Sector for EU integration is responsible for project coordination	Harmonization of local with EU regulations concerning transport
Building capacities to set basis for implementation of the CEHAPE - Children Environment and Health Action Plan for Europe	Financial resources for the implementation of the Action Plan are being searched	Ministry of Health (focal point - Dr Srmena Krstev), Ministry of Environment and Spatial Planning (focal point –Biljana Filipovic) and Secretariat for the Environmental Protection of the City of Belgrade (focal point –Vladana Djuknic)	One of 4 priority regional objectives within the CEHAPE is reduction of diseases and disabilities caused by exposure to hazardous chemical substances (e.g., heavy metals), physical agents (e.g. noise), biological agents and risky working environment during pregnancy, childhood and adolescence.

Besides the international technical assistance projects, at the end of 2006 the Government of the Republic of Serbia adopted the National Investment Plan aimed at financing investment projects from the budget in 2006 and 2007. As regards the environmental protection, 11 projects will be finances for the total amount of 20 million EUR. Projects that directly or indirectly deal with chemicals relate to waste management improvement and air quality improvement in Serbia.

Table 11.D: Participation in Projects from the National Investment Plan

Area	Project Name	Duration (in months)	Project Implementation Plan (in ,000 EUR)		Total Project Value (in ,000 EUR)
			2006	2007	
Waste Management	Development of detailed inventory of PCB and	14	240	1,800	2,040

	replacement of transformers and condensers containing PCB and their export aimed at their treatment				
Air Quality Improvement	Development of an integral air quality monitoring system for Serbia	14	30	2,670	2,700
Air Quality Improvement	Development of Chemical Accident Response Information System in Serbia	24	30	800	830
Air Quality Improvement	Environmental load by depleted uranium	12			100
Air Quality Improvement	System early announce radiation accident	12			60

11.4 Comments and Recommendations

Considering the fact the EU Association and Accession represents a Serbian strategic commitment, Serbia is making an effort in follow-up negotiation procedure for signing of the Stabilization and Association Agreement. Harmonization of the legal provisions with the EU regulations and ratification and implementation of significant number of international conventions, the majority of which concern the environmental protection represent an extremely important segment within that process. By now, 64 international agreements concerning the environmental protection have been ratified.

Likewise all European countries and European Union, Serbia should ratify two conventions concerning the chemicals management: Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and Stockholm Convention on Persistent Organic Pollutants. Provisions of the new Law on Chemicals and by-laws will fully enable implementation of the Rotterdam Convention. Aimed at preparing Serbia for ratification and implementation of the Stockholm Convention, Serbia has received proceeds by UNEP/GEF for implementation of the National Implementation Plan, an ongoing process that is planned to be completed by the end of 2008.

It should be stated that cooperation between the ministries in charge of implementation of some international agreements concerning the chemicals, is not satisfactory. There is a need to form an inter-ministerial body for coordination in terms of chemicals management consisting of representatives of the government bodies in charge of managing certain stages of the chemical life-cycle, including national focal points for international agreements concerning chemicals, which would ensure coordinated implementation of international agreements concerning chemicals. It has been proven as very useful to prepare an implementation plan for agreements prior to their ratification.

There is a need to improve the level of implementation of international agreements in Serbia in a way to fulfill all commitments stemming from international agreements. Monitoring of the

implementation level could be rendered easier by introduction of monitoring system i.e. monitoring of precisely defined indicators.

The Ministry of Environment and Spatial Planning through the Ministry of Economy and regional development should launch an imitative for establishment of cooperation with OECD bodies, dealing with certain aspects of chemicals management, particularly with the OECD working group in charge of setting principles of good laboratory practice, which is necessary in order to establish a national system in Serbia for verifying whether laboratories work in conformity with principles of good laboratory practice, which will be regulated by new legal regulation concerning chemicals harmonized with EU regulations.

SAICM documents recommend that each country should develop a national Action Plan for SAICM implementation, so there is a need for our country to do that, as well. The Ministry of Environment and Spatial Planning should coordinate this process since it is the national focal point for the SAICM.

Sector for Programming and Management of EU funds and Development Assistance of the Ministry of Finance that has formed ISDAKON Informational system, a unique official database of the Republic of Serbia is in charge of coordinating international technical assistance projects implemented in Serbia. From the technical point of view the informational system represents a unique data base , web-designed, used by the Government of the Republic of Serbia to ensure integrated information on donations, projects, donors` procedures, current and possible donors' funds, as well as priority projects eligible for donors' funding. The database is sector-oriented, which means that it is responsibility of each line ministry to enter data/project from its jurisdiction. Hence, all projects concerning international support to the Republic of Serbia since 2000 including support to the sector of the environmental protection are registered in the database (www.evropa.sr.gov.yu). Therefore, we can conclude that a system for coordination of international donor projects is established, but it is important that all line ministries update the database ISDAKON on projects they are implementing on a regular basis.

It is needed that the Ministry of Environment and Spatial Planning, in charge of chemicals management as referred to in the Law on Ministries («Official Gazette of RS», No. 43/07), in its projects proposal concerning strengthening of administrative and other capacities, always plans establishment of inter-ministerial horizontal connection of governmental bodies as one of the project components (connecting work of inspection services, development of electronic network aimed at fast data exchange between bodies in charge of different aspects of chemicals management, etc.)

XII CHAPTER: BUILDING AWARENESS OF WORKERS AND THE PUBLIC

12.1 Provision of Information to Workers Concerning Risks Associated with Chemicals Aimed at Health Protection and Safety
12.2 Provision of Information and Participation of the Public in the Decision-Making Process Concerning Risks Associated with Chemicals to Human Health and the Environment
12.3 Education and Provision of Information to the Public Concerning the Environmental Protection Issues
12.4 Comments and Recommendations

The chapter should present an overview of the mechanisms available to provide information to workers and the public concerning the potential risks associated with chemicals aimed at protecting their health and safety, mechanisms to inform the public and make them take part in decision-making process concerning risks from chemicals to health and the environment as well as mechanisms to educate and inform the public on issues regarding the environmental protection.

12.1 Provision of Information to Workers Concerning Risks Associated with Chemicals Aimed at Health Protection and Safety

In conformity with the Law on Occupational Safety and Health ("Official Gazette of the Republic of Serbia", No. 101/05), Directorate for Occupational Safety and Health is formed within the Ministry of Labor and Social Policy, as a body in charge of implementation of occupational safety measures, among which risks from chemicals.

The Law incorporates the Council Directive 98/24/EC of April 7, 1998 on protection of health and safety of workers from risks concerning chemical substances at work, as well as provisions of the Convention 170 on safe use of chemical substances at work.

Article 7 of the afore-said Law regulates types of preventive measures in realization of safety and health at work (modern technical, ergonomical, health, education, social, organizational and other measures and tools aimed at removing risks from injuries and risks to health of employees and/or their mitigation) particularly in the process of production, packaging, transport, warehousing, use and destruction of dangerous goods. Minister in charge for labour prescribes preventive measures. Directorate for Occupational Safety and Heath will prepare:

1. Regulation on preventive measures for safe and health work when exposing to chemical agents (Directive 98/24/EEC) till the end of 2009;
2. Regulation on preventive measures for safe and health work when exposing to asbestos (Directive 83/447/EEC) till the end of 2009;
3. Regulation on preventive measures for safe and health work when exposing to carcinogenic and mutagenic (Directive 2004/37/EC) till the end of 2011.

In accordance with Article 41 of the Law, in order to perform protection of health of employees at work, the employer shall engage occupational health services. The occupational health services shall inform employees on risks to health related to their work and train employees to provide first aid. Beside, in accordance with article 14 of the Law on Health Protection ("Official Gazette of the Republic of Serbia", No. 107/05), employer will organize and ensure health protection for employees from its resources in order to create conditions for corporate health responsibility and occupational health protection.

Similar obligation (to inform employees about risks) has already existed, but has not been enforced. Namely, one of the tasks of occupational health physicians is to provide health - education and recently also to promote health at work. However, there are two related issues: firstly, occupational health physicians are currently focused o treating patients, and therefore not very interested in

prevention, considering the fact that prevention is currently not financed (soon they will be forced to opt for either prevention or treatment, so the situation will change). Secondly, majority of employers, mainly small and medium enterprises, has not stipulated contracts with the occupational health services on provision of preventive services because still not aware of the legal obligation. Once these problems are solved, the health-education activities and promotion of health at work will start. It will be performed through field visits and on-job interviews with employees, seminars, discussions during periodical check-ups (but only for employees working at workplaces with high risks) as well as through education by employees' representatives (trade unions, etc.).

The inspection service is organized in the Labour Inspectorate, within Ministry of Labour and Social Policy. The Labour Inspectorate is in charge of supervision of all activities within the chemical industry as well as of activities where chemicals are used. The Labor Inspection performs regular and random inspections, investigates injuries at work, adopts decisions, files charges to the judge for violations and performs other activities related to the inspection.

12.2 Provision of Information and Participation of the Public in the Decision-Making Process Concerning Risks Associated with Chemicals to Human Health and the Environment

The Constitution of the Republic of Serbia proclaims the right to the healthy environment and general human right and obligation of each individual to protect and to improve the environment.

The Law on the Environmental Protection ("Official Gazette of RS", No135/04) proclaims the principle of public informing and access (Article 9). In achieving the right to the healthy environment, each individual has the right to be informed on conditions of the environment and to participate in making decisions, the implementation of which could affect the environment. Data on conditions of the environment are public.

The Regulation of the Government of the Republic of Serbia ("Official Gazette of RS", No100/05) defines public discussion procedure when adopting the law, so that the public discussion is organized for draft laws significantly influencing organization of some issues or of special interest to the public. It is usual to publish the draft law on the web-site of the line ministry, as well as in the newspapers, organize round tables, public events, public discussions, etc. However, there is very limited impact of the public to the contents of by-law regulations. There is no obligation to inform the public, and to get public opinion when adopting by-laws.

The Draft National Environmental Protection Program recognizes a problem concerning public education and informing on environmental protection issues in Serbia. Although the environmental protection is covered by the education system, its implementation from pre-school to university level is still not satisfactory; this is also true for the issue of chemicals management. Through the education reform and inclusion of sustainable development principles, it is very important to introduce multi-sector and multi-disciplinary approach in implementation of this type of education. The education reform should enable introduction of basic rules on chemicals use (e.g. learning about chemical warning labels) and sound chemical waste management in curricula of elementary and secondary schools. Chemical warning is implemented through labeling on labels as well as based on information provided on the safety note submitted to professional users of chemicals. Considering the afore-said fact, there is a need to improve labeling of chemicals and contents of the safety note.

The Law on Chemicals and Law on Biocides are currently being drafted which will enable setting of unified system of placing chemicals on the market in conformity with EU regulations. These drafts envisage establishment of database available to other governmental bodies. In conformity with the draft, interested parties will have a possibility to access data with restriction concerning data presenting business secret.

The draft laws envisages the public participating in decision making process on prohibition of production, placing on the market and use as well as restrictions for placing on the market and use of chemicals and biocides. Proposed prohibitions and restrictions with explanations are published on the Internet of the line ministry and the public may submit opinions thereof within 30 days. Moreover, when issuing permits for chemical use from the list of controlled substances, the line ministry invites interested parties to submit opinions thereof within 30 days through its web-site.

According to the Law on Health Protection ("Official Gazette of RS", No. 107/05), the Poison Control Center is in charge of keeping register of poisoning from chemicals, providing information and advices concerning acute poisoning and submitting data on chemical poisoning. Based on submitted information on the most frequent cases of chemical poisoning, the competent governmental body should implement targeted campaign to inform the public and reduce number of poisoning.

Public awareness campaigns are needed to encourage public awareness in terms of risks from chemicals to health and the environment. Protest actions should encourage population to have more responsible attitude towards use of dangerous chemicals and handling with dangerous waste in the sustainable way.

12.3 Education and Provision of Information to the Public Concerning the Environmental Protection Issues

Education and awareness development concerning environmental protection is a complex process requiring joint actions by the Government and local self-government, businesses, experts, media, NGOs, i.e. of the overall population.

Education in the field of the environmental protection is under-represented in pre-school and school curricula as well as faculties, although this field is included in the education system. Through the education reform and inclusion of sustainable development principles, a multi-sector and multi-disciplinary approach in implementation of education is introduced. Informal education and other types of awareness increasing are insufficiently coordinated, not systematized and not available to all population categories. Provision of information, as an important aspect of the informal education on issues, is partial and ad hoc. There is no continuous campaign to develop and strengthen awareness.

Non-governmental organizations implement mostly periodic and single activities considering the lack of stable finance source. Therefore, it is needed to strengthen capacities of NGOs and especially of consumer protection associations to enable them to inform citizens on risks from chemicals to the human health and the environment.

Protest actions will have the objective to encourage citizens to be more accountable towards the use of hazardous chemicals and chemical waste management in a sustainable way.

There are no precise data on the total number of environmental non-governmental organizations, but some databases contain data on main organizations. For example in the database of the Regional Environmental Center for Central and East Europe there is a list of 160 environmental NGOs (www.rec.org/REC/Databases/NGODirectory/NGOFind.html) and 35 environmental information centers and services (www.rec.org/REC/Databases/EnvInfDirectory/search.html). The database of the non-Profit Sector Development Center lists more than 200 environmental NGOs (http://directory.crnps.org.yu).

Besides the database on experts involved in environmental protection, EkoForum collects contacts of environmental NGOs in Serbia and updated it regularly.

Majority of environmental NGOs has been established in past couple of years, although there are some with long tradition (hiking, scouts organizations, Serbian Young Researchers, etc.). Majority of

environmental NGOs act locally, although there are some that act at the national level. Recently, numerous networks of environmental organizations have been developed. Besides the Serbian Young Researchers, established thirty years ago as a network of 27 organizations. The Environmental Movement from Novi Sad was established in 1990 as a socially-owned organization with the program to protect and improve the environment and promote spiritual heritage. The movement has more than 15,000 individual and 150 collective members.

In early 2005, the association of environmental NGOs VOLVOX was established and through the electronic network, it gathers over 100 NGOs. "Zelena Mreza" of Vojvodina and Serbian NGOs Federation gathering majority of NGOs, are also present. There is also electronic open network GREEN PRESS.

Serbian environmental NGOs are members of various international environmental NGO networks. For example, DEF Serbia and Montenegro is part of the Danube Environmental Forum, with members coming from 15 Danube-basin countries. Serbian Young Researchers is a member of SEEENN – South Eastern European Environmental NGOs Network, YEE – Youth and Environment Europe, MED Forum – Mediterranean NGO Network for Ecology and Sustainable Development and CEEB – working group for biodiversity increase in Central and Eastern Europe. There are five environmental NGOs in Serbia that are members of CERI – Carpathian Ecoregion Initiative. Environmental Movement from Novi Sad is a member of European Environmental Bureau since 2003. NGO “Local Agenda 21 for Kostolac - Opstina” is a member of international networks i.e. GEF, UN-NGO, European ECO-Forum, as well as of some regional networks (DEF).

In some parts of Serbia, there is insufficient number of environmental NGOs or areas not sufficiently covered by NGO network activities (South and South-East, South-West, Eastern and Central Serbia). Vojvodina, Western Serbia and Belgrade are covered by NGO activities, locally and nationally, to the great extent.

Some of the mentioned organizations exist only on paper because they were active until they had funds from donations for the realization of some projects. More attention should be paid on the new NGOs whose members have more enthusiasm and are willing to obtain positive changes. It happens that NGOs depend on donations and donators are very often environmental pollutants.

Table 12.A: NGOs in Serbia dealing with poisons – chemicals (POPs)
(Source: REC’s NGO Directorium for 2006)

NGOs	Scope of work			Note
	International	National	Local	
Agronomic Centre, Priboj			x	
Avalon Environmental Association, Vrsac	x	x	x	
Bent River Drina, Ljubovija	x	x	x	
Bujanovac Environmental Society, Bujanovac		x	x	
Centre for Developing Ecological Awareness - 'The Well', Belgrade	x	x		
Centre for Human Resources, Kotez - Belgrade		x	x	
Centre for Modern Education, Valjevo			x	
Civil Movement for Environmental Protection, Novi Pazar			x	
Dragačevo Ecological Society , Guca			x	
Dreamland Children's Creative Centre, Zrenjanin			x	

Eco-Beo-Grad Ecological Movement, Belgrade	x	x	x	
Ecological Group of Koceljeva Citizens for the Sake of a Ball, Koceljeva			x	
Ecological Movement Blue Danube, Apatin	x		x	
Ecological Movement of the City of Novi Sad, Novi Sad	x	x	x	
Ecological Movement of Yugoslavia, Novi Sad		x		
Ecologocal Union Ecoagenda 7/1935,Bor		x	x	
EKO Stepojevac Ecological Civilians Union, Stepojevac			x	
EkoForum - Forum for the Sustainable Development and Protection of Environment, Belgrade	x	x	x	
Environment Engineering Group, Novi Sad	x		x	
Environmental Ambassadors, Belgrade	x	x	x	SAICM NGOs focal point
InterLink-Balkan, Uzice	x	x	x	
Kruševac Ecological Centre, Krusevac		x		
NGO Antares Association for Holistic Health Care, Kragujevac			x	
NGO Local Agenda 21 for Kostolac Municipality, Kostolac	x	x	x	
Non-Smoking Education Centre - RP, Kragujevac		x	x	
Raskin Sliv Ecological Association, Novi Pazar			x	
Sanitary Ecological Society, Belgrade	x	x	x	
Serbian Green Youth, Belgrade	x	x	x	
Telecottage Association of Serbia, Backa Topola	x	x	x	
Terra's Organic Food Association, Subotica	x	x	x	
Turija Ecological Association, Veliki Crljeni			x	
Union for the Protection of the Environment and Prevention of Malignant Diseases, Belgrade			x	

All registered environmental NGOs are organized in conformity with current law regulations: Law on the Association of Citizens into Associations, Social and Political Organizations established at the territory of SFRY ("Official Gazette of SFRY", No. 42/90 and "Official Gazette of FRY", No. 24/94, 28/96, 73/00), and Law on Social Organization and Association of Citizens ("Official Gazette of SRS", No. 24/82, 39/83, 17/84, 50/84, 45/85, 12/89 and " Official Gazette of RS", No. 53/93, 67/93, 48/94, 101/2005).

Decision-making bodies are Assembly, Board of Directors or Managing Board. There is no hierarchy in environmental NGOs networks, but coordination and all members of the network are independent.

Opportunities offered to environmental organizations and consumers' organizations to influence the level of environmental awareness and education of citizens are as follows:

- monitoring of pollutants and reporting to the authorities any breach;
- participation in preparation of legislation;

- participation in plans, strategies and other relevant documents preparation;
- education activities (public events, lectures, round tables, organization of summer camps for pre-school and school children);
- cultural activities (celebrating important dates related to the environment with different events: concerts, exhibitions, lectures, public gathering);
- campaigns concerning different environmental aspects;
- scientific and professional events (seminars, symposiums, conference);
- protest actions
- eco-legal aid for citizens (environmental organizations and consumers organizations collect reports from citizens concerning environmental endangering and inform competent bodies or bring legal actions);
- participation in the local self-governments (through representatives of environmental organizations and consumers organizations in the local self-government elected at the local elections and committed to solve communal and environmental problems of the community).

12.4 Comments and Recommendations

Participation of the public in the process of law adoption is defined by the Regulation of the Government of the Republic of Serbia through public discussions, so that for draft laws that will significantly modify certain issues or issues that are of special interest to the public, the public discussion is mandatory.

The Draft National Environmental Protection Program recognizes the issue concerning education and provision of information concerning the environmental protection issues in Serbia. Although the field of the environmental protection is recognized by the education system, its implementation from pre-school to university level is still not at the satisfactory level, and this is valid for chemicals management. Through educational reform and introduction of sustainable development principles, it is very important to introduce multi-sector and multi-disciplinary approach in implementation of this type of education. Education reform should enable to introduce basis of sound chemicals management (for example, learning about chemical warning labels) and sound chemical waste management into curricula of elementary and secondary schools. Chemical warning is implemented through labeling on labels as well as based on information provided on the safety note submitted to professional users of chemicals. Considering the afore-said fact, there is a need to improve labeling of chemicals and contents of the safety note.

Employers and employees in the chemical industry that work with chemicals in the different stages of the chemical life-cycle (production, warehousing, transport, distribution, use, and disposal) represent an important target group for education. The employer shall engage the occupational Health service aimed at employees' health protection and informing of employees about risks to the health.

Non-governmental organizations implement mostly periodic and single activities considering the lack of stable finance source. Therefore, it is needed to strengthen capacities of NGOs and especially of consumer protection associations to enable them to inform citizens on risks from chemicals to the human health and the environment. Recently the NGOs are focusing on specific environmental problems such as air and water pollution, waste issues, landscape conservation. Some NGOs are targeting certain environmental sectors or certain regions in Serbia.

The overview of the world non-profit network web-site implementing activities aimed at elimination of POPs and other toxic chemicals in 65 countries (IPEN-International POPs elimination networks www.oztoxics.org), it is concluded that there is no Serbian NGO member of the network. Therefore, it is extremely important to implement a campaign and protest actions within the Stockholm Convention Implementation Plan to inform the public on risks from chemicals to human health and the environment, but also to encourage some NGOs to get involved in activities regarding reducing risks from hazardous chemicals and to become IPEN members.

XIII CHAPTER: RESOURCES AVAILABLE AND NEEDED FOR CHEMICALS MANAGEMENT

13.1. Human Resources Available in the Government Bodies/Institutions for Chemicals Management
13.2. Human Resources Needed in Government Bodies/Institutions Aimed at Improvement of the Chemicals Management System
13.3. Comments and Recommendations

13.1 Human Resources Available in the Government Ministries/Institutions for Chemicals Management

Table 13.A: Resources Available in Government Ministries / Institutions

Ministry/Agency Concerned	Number of Professional Staff Involved in Chemicals Management	Type of Expertise
Ministry of Environment and Spatial Planning	12 employees in the Department for Chemicals + 40 environmental protection inspectors	5 graduate chemists 2 graduate technologists 1 physico-chemist 1 doctor of medicine 1 biochemist, M.Sc. environmental protection inspectors have different educational background (technologists, chemists, biologists, etc.)
Ministry of Environment and Spatial Planning - Environmental Protection Agency	1	1 industrial chemist, M.Sc.
Ministry of Health		
Ministry of Agriculture, Forestry and Water Management - Directorate for Plant Protection - Department for Plant Protecting Agents and Plant Nutrition	8 employees in the Department for Plant Protection Products and Plant Nutrition + 109 Phytosanitary Inspectors, at border crossings and in-land	graduate plant protection engineers 50 % of phytosanitary inspectors are graduate plant protection engineers
Ministry of Labor and Social Policy - Department for Occupational Safety and Health	2	1 lawyer, M.Sc. 1 graduate agronomist, food technologist
Ministry of Finance - Custom Administration	3	graduated degree in social science
Ministry of Finance-		
Ministry of Infrastructure - Sector for Roads and Traffic Safety	4	3 graduate traffic engineers 1 graduate lawyer
Ministry of Infrastructure - Sector for Railway and Intermodal Transport	2	1 graduate traffic engineer 1 graduate mechanical engineer
Ministry of Interior Affairs, Sector for Protection and Rescuing – Department for Preventive Measures	3	1 graduate electrical engineer 1 graduate mechanical engineer 1 graduate chemist
Ministry of Economy and regional development - Sector for Foreign Trade Policy and Regime	6	1 economist, M.Sc. 2 graduate economists 2 graduate lawyers 1 graduate industrial chemist
Ministry of Defense - Directorate for Physical Resources	2	1 graduate chemical engineer 1 graduate chemist
Ministry of Foreign Affairs	2	1 lawyer, M.Sc 1 graduate lawyer

Secretariat for the Environmental Protection and Sustainable Development of the Autonomous Province of Vojvodina	6	3 graduate chemical engineers 2 graduate agronomists 1 graduate chemist
City of Belgrade - City Administration, Environmental Protection Secretariat	3	3 graduate chemical engineers

	Number of Professional Staff and Name of People Employed in the Area of Chemicals Management	**Type of Expertise**	**Contacts**
Ministry of Environment and Spatial Planning Department for Chemicals	Olivera Pavicevic	graduate chemist	Tel.: 215 87 59 Fax: 215 87 93 olivera.pavicevic@ ekoserb.sr.gov.yu
	Valentina Radjenovic	graduate chemist	Tel.: 215 87 59 Fax: 215 87 93 valentina.radjenovic@ ekoserb.sr.gov.yu
	Gordana Basta	graduate chemist	Tel.: 215 87 59 Fax: 215 87 93
	Tatjana Markov Milinkovic	graduate engineer of technology	Tel.: 215 87 59 Fax: 215 87 93 tatjana.markov@ ekoserb.sr.gov.yu
	Bobana Jakovljevic	graduate physical-chemist	Tel.: 215 87 59 Fax: 215 87 93 bobana.jakovljevic@ ekoserb.srgov.yu
	Biljana Milenkovic	graduate engineer of technology	Tel.: 215 87 59 Fax: 215 87 93 biljana.milenkovic@ ekoserb.sr.gov.yu
	Marija Arandjelovic	doctor of medicine	Tel.: 215 87 59 Fax: 215 87 93 marija.arandjelovic@ ekoserb.sr.gov.yu
	Jelena Mijatovic	graduate chemist	Tel.: 215 87 59 Fax: 215 87 93 jelena.mijatovic@ ekoserb.sr.gov.yu
	Sonja Roglic	graduate chemist	Tel.: 215 87 59 Fax: 215 87 93 sonja.roglic@ ekoserb.sr.gov.yu
	Katarina Krinulivic	biochemist, M.Sc	Tel.: 215 87 59 Fax: 215 87 93 katarina.krinulovic@ ekoserb.sr.gov.yu
	Rajka Vujacic	legal administrative officer and pharmaceutical technician	Tel.: 215 87 59 Fax: 215 87 93 rajka.vujacic@ ekoserb.sr.gov.yu

Ministry of Environment and Spatial Planning - Environmental	**Number of Professional Staff and Name of People Employed in the Area of Chemicals Management**	**Type of Expertise**	**Contacts**

Protection Agency	Nebojsa Redzic	chemical engineer, M.Sc	Tel.: 380 95 25 Fax: 380 95 24 nebojsa.redzic@sepa.sr.gov.yu

	Number of Professional Staff and Name of People Employed in the Area of Chemicals Management	**Type of Expertise**	**Contacts**
Ministry of Agriculture - Directorate for Plant Protection, Department for Plant Protecting Agents and Plant Nutrition	Snezana Savcic - Petric	plant protection engineer	Tel: 260 00 81 Fax: 26 04 576 snezanasp@minpolj.sr.gov.yu
	Snezana Jelicic	plant protection engineer	
	Mirjana Petrovic	plant protection engineer	
	Marina Cvetkovic	plant protection engineer	
	Biljana Djurisic	plant protection engineer	
	Ivana Kecman	plant protection engineer	
	Lidija Ristic - Matijevic	plant protection engineer	
	Gordana Filipovic	plant protection engineer	
	109 phytosanitary inspectors working on border crossings and in-land	50% are plant protection engineer	

	Number of Professional Staff and Name of People Employed in the Area of Chemicals Management	**Type of Expertise**	**Contacts**
Ministry of Foreign Affairs	Bratislav Djordjevic, Ambassador, Chairman of the Commission for Convention on Chemical Weapons	lawyer, M.Sc	Tel.:361 8084 Fax:361 2534 bratislav.djordjevic@ smip.sv.gov.yu
	Marija Antonijevic, Advisor, Directorate for Human Rights and Environmental Protection	graduate lawyer	Tel.:306 8597 Fax:361 8118 marija.antonijevic@ smip.sv.gov.yu

	Number of Professional Staff and Name of People Employed in the Area of Chemicals Management	**Type of Expertise**	**Contacts**
Ministry of Labor and Social Policy, Directorate for Occupational Safety and Health	Simo Kosic	lawyer, M.Sc	Tel.:334 73 91 Fax:334 73 92 simok@minrzs.sr.gov.yu
	Milojka Zarubica	graduate agronomist, food technology	milojka.zarubica@ minrzs.sr.gov.yu

	Number of Professional Staff and Name of People Employed in the Area of Chemicals Management	**Type of Expertise**	**Contacts**
Ministry of Economy and Regional Development - Sector for Foreign Trade Policy and	Ivan Arandjelovic, Sector for Foreign Trade Policy and	economist, M.Sc.	Tel: 333 41 28 ivan.arandjelovic@

Regime	Regime, Department for Foreign Trade Regime and Control of Export/Import of Weapons, Military Equipment and Dual-Use Goods		merr.sr.gov.yu
	Asija Veljovic, Sector for Foreign Trade Policy and Regime, Department for Foreign Trade Regime and Control of Export/Import of Weapons, Military Equipment and Dual-Use Goods	lawyer	Tel: 333 41 89 asija.veljovic@merr.gov.yu
	Snezana Milic, Sector for Foreign Trade Policy and Regime, Department for Foreign Trade Regime and Control of Export/Import of Weapons, Military Equipment and Dual-Use Goods	economist	Tel: 333 41 80 snezana.milic@merr.sr.gov.yu
	Ana Markovic, Sector for Foreign Trade Policy and Regime	industrial chemist	Tel.: 333 41 91 amarkovic@merr.sr.gov.yu
	Bratislav Radivojevic, Sector for Foreign Trade Policy and Regime	economist	Tel.: 333 41 76 bradivojevic@merr.sr.gov.yu

	Number of Professional Staff and Name of People Employed in the Area of Chemicals Management	**Type of Expertise**	**Contacts**
Ministry of Interior Affairs, Sector for Protection and Rescuing – Department for Preventive Measures	Ivan Zarev	electrical engineer	Tel.: 306 2500, ext. 31-29
	Djordje Babic	traffic engineer	Tel.: 306 2500, ext. 34-94
	Predrag Radakovic, Sector for Protection and Rescuing – Department for Preventive Measures	mechanical engineer	Tel.: 306 2500, ext. 31-88
	Ljiljana Raus, Sector for Protection and Rescuing – Department for Preventive Measures	graduate chemist	Tel.: 306 2500, ext. 20-26 ibaras@mup.sr.gov.yu

	Number of Professional Staff and Name of People Employed in the Area of Chemicals Management	**Type of Expertise**	**Contacts**
Ministry of Infrastructure - Sector for Roads and Traffic Safety	Demir Hadzic, Department for Traffic Safety	traffic engineer	Tel: 3616292 dhadzic2002@yahoo.co.uk
	Olivera Stevic, Group for Transport of Dangerous Goods	traffic engineer	Tel.: 2135425 oliverastevic@yahoo.com
	Desimir Desnica, Group for Transport of Dangerous Goods	traffic engineer	Tel.: 2135425 deske28@yahoo.com
	Mirko Pavicevic, Department for Traffic Safety	lawyer	Tel: 2135425 mirkop@mki.sr.gov.yu

	Number of Professional Staff and Name of People Employed in the Area of Chemicals Management	Type of Expertise	Contacts
Ministry of Infrastructure - Sector for Railway and Intermodel Transport	Dejan Tomic, Advisor for safety issues	traffic engineer	Tel.: 021 424649 dtomic@mki.sr.gov.yu
	Milutin Minic, inspector	mechanical engineer	Tel: 063/8063189 minici@verat.net

	Number of Professional Staff and Name of People Employed in the Area of Chemicals Management	Type of Expertise	Contacts
Ministry of Defense - Sector for Physical Resources	Colonel Vojin Salapura	chemical engineer	Tel.: 3201 170 Fax: 265 64 88 salapura_v@yahoo.com
	Marija Zoric	graduate chemist	Tel.: 3201 171 Fax: 265 64 88 marija210@yahoo.com

	Number of Professional Staff and Name of People Employed in the Area of Chemicals Management	Type of Expertise	Contacts
Secretariat for the Environmental Protection and Sustainable Development of the Autonomous Province of Vojvodina	Mirjana Kastratovic, Sector for Inspection Affairs	industrial chemist	Tel./Fax: 021-520-628 063-863-4942 inspekcija.zzs@nspoint.net
	Igor Vavic	graduate agronomist	
	Imre Jenovaji	graduate agronomist	
	Svetlana Marusic	industrial chemist	
	Sonja Atlas	graduate agronomist	
	Bogdana Vujic	graduate chemist	

	Number of Professional Staff and Name of People Employed in the Area of Chemicals Management	Type of Expertise	Contacts
City of Belgrade - City Administration, Environmental Protection Secretariat	Slavica Tosic	graduate technologist	Tel.: 33 09 183 Fax: 32 22 681 beoeko@ beogradsg.org.yu slavica.tosic@ beogradsg.org.yu
	Sadika Janojlic	graduate technologist	Tel.: 33 09 263 Fax: 32 22 681 sadika.janojlic@ beogradsg.org.yu
	Vladana Djuknic	graduate technologist	Tel.: 33 09 367 Fax: 32 22 681

13.2 Human Resources Needed by Governmental Bodies/Institutions to Improve Chemicals Management System

Table 13.B: Human Resources Needed by Governmental Ministries/Institutions

Ministry/Agency/Secretariat concerned	Number/Type of Professional Staff Needed	Training Requirements
Ministry of Environment and Spatial Planning	• At least 10 employees with university qualifications, out of which at least 2 employees familiar with toxicology; • At least 5 environmental protection inspectors to create a team to provide training to other inspectors aimed at enforcement of new regulations;	• Learning about the EU administrative procedures in terms of the decision- making process ("EU comitology") • Studies on chemicals risk assessment; • Regulatory toxicology; • Socio-economic assessment of some decisions made; • Chemicals classification, labeling and packaging • Procedures defined by new regulations;
Ministry of Environment and Spatial Planning - Environmental Protection Agency	• 2-3 industrial chemists • 1-2 graduate chemists • 2-3 IT engineers • 5-6 chemical technicians	• Development of the IT system for hazardous substances; • Data base development concerning chemicals on the market; • Data base development concerning chemical risks;
Ministry of Health		• Training concerning maximum permitted concentrations of pesticides and other chemicals in food in terms of new regulations;
Ministry of Agriculture, Forestry and Water Management - Directorate for Plant Protection - Department for Plant Protecting Agents and Plant Nutrition	4 positions: • monitoring of physical and chemical characteristics of plant protecting agents and plant nutrition agents - graduate chemist required; • registration of plant protecting agents – assessment of eco-toxicological properties and behavior of plant protecting agents - graduate biologist, pharmacologist, chemist required; • registration of plant protecting agents – assessment of toxicological characteristics and defining quantities of plant protecting agents residues in food of plant origin (MRLs) - graduate biologist, pharmacologist, chemist required; • keeping records of machineries, devices, equipment and instruments for plant protecting agents application;	• requirements related to EU registration (documentation), assessment and decision-making procedure, testing methods. • pesticide efficiency; • chemical and physical properties of pesticides; • pesticide eco-toxicological properties; behavior in the environment; • pesticide and MRLs toxicological properties;
Ministry of Labor and Social Policy - Directorate for Occupational Safety and Health	• 2 graduate chemists • 1 graduate technologist	Training concerning occupational safety and Health in conformity with new regulations;
Ministry of Infrastructure - Sector for Roads and Traffic Safety, Sector for Railway and	Training of the Ministry staff to be able to perform services defined as tasks of the line bodies by RID/ADR	• training regarding RID / ADR; • andragogical knowledge

Intermodal Transport	provisions.	necessary for training and exam for Advisors for Safety issues as well as documentation preparation.
Ministry of Interior Affairs, Sector for Protection and Rescuing – Department for Preventive Measures	There is a need for additional staff	Training concerning production, warehousing and transport of dangerous goods
Ministry of Economy and regional development - Sector for Foreign Trade Policy and Regime	There is a need for additional staff	
Ministry of Finance - Сектор за програмирање и управљање фондовима ЕУ и развојном помоћи		
Ministry of Finance - Custom Administration	There is a need for additional staff	Training concerning new obligations stemming from new regulations on chemicals, plant protecting agents, biocides, etc. that mainly regard implementation of the PIC procedure and control of foreign trade of certain prohibited chemicals;
Ministry of Defense - Sector for Physical Resources	Additional staff is currently not planned	Training regarding sound management of dangerous chemicals and dangerous waste
Ministry of Foreign Affairs	Increase in number of staff is expected, depending on future restructuring of the Ministry	
Secretariat for the Environmental Protection and Sustainable Development of the Autonomous Province of Vojvodina	5 inspectors 1 technicians with secondary school or college	training for inspectors to work in the field with dangerous chemicals, training for technicians to enter data in the chemicals cadastre;
City of Belgrade - City Administration, Environmental Protection Secretariat	2 people with college degree (natural science or technical college) to work in the Sector for environmental quality monitoring and control	Types of training needed will depend on obligations defined by the new Law on Chemicals

13.3 Comments and Recommendations

As shown in the Table 13.A, Ministries in charge of chemicals management employ minimum number of employees. Number of employees in governmental bodies working on chemicals management in the neighboring countries significantly exceed number of employees in this area in our country. Besides the lack of personnel, they lack also sufficient knowledge from certain fields necessary for the implementation of new regulations, for example, concerning risk assessment, good laboratory practice, classification and labeling of chemicals, regulatory toxicology, etc.

Aimed at efficient enforcement of new regulations concerning the chemicals management, harmonized with EU regulations, there is a need to strengthen administrative and professional capacities of the staff in governmental bodies, especially of the inspectorate and increase number of staff working on the chemicals management. Strengthening of professional capacities is not based only on increase of number of staff, but also on provision of trainings to employees to enable them to implement new regulations, for example, assessment of risks from chemicals to health and the environment, classification and labeling of chemicals, regulatory toxicology, development of socio-economic assessment regarding decision made, etc. Trainings provided to public servants should cover also training to enable them active participation at future work of some European Commission bodies deciding on the chemicals management policy as well as bodies dealing with some technical

issues. Like in other countries in transition, trainings will be organized based on EU-funded projects. Besides, there is a need to introduce a sustainable national financial system for professional training of public servants that could be based on fees for pesticides registration, licenses on biocide marketing, etc. The Table 13.B shows the number of employees and types of trainings needed in line ministries concerning the chemicals management.

The environmental protection inspectors supervising the enforcement of the Law on Production and Trade of Poisons („Official Gazette of FRY“, No. 15/95, 28/96 and 37/2002) are currently supervising just fulfillment of conditions by legal entities for manufacturing and trading of toxic substances. Other types of control, as referred to in the Law, such as control of regular classification and labeling are not performed. In order for inspectors to perform these activities, training should be provided when new regulation harmonized with the EU rules, is adopted. Besides the environmental protection inspectors, other inspections need training, as well (labor inspection concerning occupational safety and health, sanitary inspection, market, etc.) aimed at better control over chemicals on the market. When planning training for various inspections, one should take into account future jurisdictions that will be defined by the new Law. During the training, teams should be formed consisting of inspectors from different inspections that will be trainers in their inspections and later on, help other inspectors when there are particular issues during the supervision. For the future work of these inspections, there is a need to establish a sustainable system of information exchange among different inspectors in charge of particular areas of chemicals management.

It should be stressed that the training of custom officers is extremely important in order to be timely prepared for enforcement of new regulations concerning chemicals management (Law on chemicals, biocides, plant protecting agents and nutrition agents, etc.).

Besides the employees in the state administration, improvement of professional capacities is also needed in educational and scientific-research institutes regarding chemicals management, building of professional capacities in the chemical industry and industries using chemicals, as well as informing chemicals exporters and importers on new administrative procedures in international chemicals trade. In order to maximize use of human resource capacities within the industry, there is a need for training of employees aimed at recognizing their future obligations inherent in new regulations. The training shall be organized in a way to ensure its continuity. There is a need to define how necessary trainings of representatives of the industry will be implemented. Considering the great number of new regulations currently being drafted, limited capacities within the industry and number of trainers, firstly a training schedule should be developed (taking into consideration multi-sector approach in chemicals management) that will prepare the industry for the enforcement of new regulations efficiently.