

Chapter 3

Hazardous Waste Contractor Survey

3. Hazardous Waste Contractor Survey

3.1 Objectives

In order to develop a strategy and master plan for hazardous waste management it is clearly important to understand current hazardous waste management practices and identify their deficiencies. Based on an understanding of these deficiencies, objectives for improvements can be defined. Particular objectives were:

- Determine whether current practices are appropriate for Romania,
- To determine necessary objectives for improving hazardous waste management at source,
- To determine necessary objectives for improvement of hazardous waste management by third parties,
- To determine necessary objectives for improving hazardous waste management infrastructure.

The team have therefore undertaken a review and survey of known hazardous waste management contractors (companies which collect, transport, treat and/or dispose of hazardous wastes). Note that hazardous waste recycling contractors have been covered separately (see Chapter 4).

A hazardous waste management contractor may be a company whose main business is hazardous waste management or it may be a company which has another main business activity but which accepts hazardous waste from third party companies for utilisation, recovery, treatment or disposal. Companies which only manage their own hazardous wastes are not considered hazardous waste management contractors.

3.2 Methodology

The basic survey methodology was:

- To review existing data held by the MWER, EPIs and institutes to identify hazardous waste management contractors.
- To send a questionnaire to the EPIs asking for information on organisations managing industrial and hazardous wastes.
- To contact a selection of the identified contractors to validate data held.

The first step has been to locate existing data on hazardous waste management contractors operating in Romania. The second step was to validate the data collected; this was achieved by undertaking a simple telephone survey of a selection of waste management contractors.

In parallel with this activity, a questionnaire was distributed to all County EPIs asking them to identify organisations who manage waste from industrial premises and identify which manage hazardous wastes and which have environmental authorisation and which do not.

Finally, key organisations involved in hazardous waste management that have been identified during these activities are being visited to determine the type and scale of their current activities, to assess their environmental adequacy and determine potential for further use and/or development.

3.3 Findings

3.3.1 Assessment of Existing Data

It was clear from the outset that, whilst several companies have facilities for the management of hazardous wastes they themselves generate, there were very few hazardous waste management **contractors** in Romania. Indeed, a review of existing, readily available information indicated only two (ProAirClean in Timisoara and Mondeco, both incinerator operators and both originally developed for clinical waste management).

A number of lists of currently known waste management contractors were obtained by the team, these are included in **Annex #**. ICIM were asked to review the lists in conjunction with data in their contractors database with the objective of identifying those contractors which were most likely to collect industrial waste on the assumption that the industrial wastes collected may potentially contain hazardous wastes.

Based on ICIM’s advice, the following companies were contacted by telephone to determine whether they handle industrial wastes.

Table 3.3.1 Waste Management Companies Contacted by Telephone

S.C. Dunacor S.A. (Braila)
SNP Petrom S.A. – Peco (Hunedora)
S.C. Casial S.A. (Deva)
S.C. Favior Vidra S.A. (Orastie)
Salubriserv S.A. (TG Mures)
Tracon S.A. (Braila)
Comprest S.A. (Brasov)
EcoSal S.A. (Constanta)
Consas S.R.L (Cluj)
Salubritas S.A. (Neamt)
S.C. Rafomet SRL (Bacau)
Getesib S.A. (Sibiu)
RER-ecologic Service (Buzau)
Urban S.A.
Polaris S.A. (Constanta)

Of these only SNP Petrom S.A. – Peco and S.C. Rafomet SRL in Bacau were found to handle industrial hazardous waste. SNP Petrom S.A. – Peco handled tank cleaning wastes and Rafomet recover oil wastes for use as light fuel oil. Rafomet also deposit process residues on “special terrain”. The majority are municipal waste collection and transportation contractors and all of these say that they do not collect waste from industrial sources and certainly no hazardous wastes.

3.3.2 Second EPI Questionnaire

A second supplementary questionnaire was sent to each EPI. Responses were received from all EPIs except Alba, Bihor, Covasna, Maramures, Mehedinti and Bucharesti.

The responses indicated the number of each type of waste management activity were known to the EPIs (both with and without environmental authorisations). The results are summarised in Table 3.3.2.

The majority of companies identified by the EPIs only handle/process their own wastes. From a review of the information received a number of organisations managing hazardous waste may be identified for further investigation. This process of reviewing the responses is ongoing and will identify further companies to be surveyed.

3.3.3 Hazardous Waste Management Visits

As a result of the preceding activities, a number of companies who are currently thought to process hazardous wastes were identified and selected for visiting. Table 3.3.3 lists the companies visited.

Table 3.3.2 Hazardous Waste Management Visits

<i>Date Visited</i>	<i>Company</i>	<i>Hazardous Wastes Handled</i>	<i>Waste Management Processes</i>	<i>Service to Other Companies</i>
17/6/2002	PetroBrazi Refinery, Ploiesti	Oily Wastes	Incineration, Separation	No
17/6/2002	Vega Refinery, Ploiesti	Oily wastes, acid tars.	Separation, Vacuum Distillation	Yes
18/6/2002	Iridex, Bucharest	None	MSW and Industrial Waste Landfill	Yes
19/6/2002	Pro Air Clean, Timisoara	Clinical wastes, Organic hazardous industrial wastes	Incineration with gas cleaning	Yes
19/6/2002	RER-ecologic Services, Timisoara	None	MSW Collection only	Yes
20/6/2002	RER-ecologic Services, Bucharest (REBU)	None	MSW Collection only	Yes
05/7/2002	Mondeco	Clinical waste	Incineration w/o gas cleaning	
5/8/2002	Sotem, Campulung	Oily wastes and other organic wastes	Blending for cement kiln incineration	Yes

Table 3.3.3 Summary of EPI Second Questionnaire Responses

COUNTY	COMPANIES (NUMBER)	ACTIVITY																							
		TRANSPORT				INCINERATION				TREATMENT				RECYCLING				STORAGE				LANDFILL			
		A	U	AH	UH	A	U	AH	UH	A	U	AH	UH	A	U	AH	UH	A	U	AH	UH	A	U	AH	UH
ALBA																									
ARAD	5	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0
ARGES	32	0	0	0	0	0	0	0	0	0	0	8	0	2	0	23	4	0	0	13	2	2	0	20	4
BACAU	19	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	1	4	2	2	0
BIHOR																									
BISTRITA NASAUD	15	3	3	1	0	2	3	0	0	4	1	1	0	4	4	1	0	6	6	2	0	2	4	0	0
BOTOSANI	20	1	0	6	5	0	0	0	0	4	0	4	4	6	0	6	0	6	0	6	1	0	0	0	5
BRASOV	45	9	4	15	6	0	0	4	9	0	0	1	0	5	2	11	2	9	4	16	14	9	4	11	5
BRAILA	13	8	0	5	0	0	0	0	0	0	0	2	0	5	0	2	0	6	0	4	0	8	0	4	0
BUZAU	42	10	0	2	3	3	1	1	0	5	0	1	3	2	0	1	3	19	2	10	5	6	0	0	2
CARASSEVERIN	3	0	1	0	2	0	0	0	0	0	1	0	2	0	1	0	2	0	1	0	2	0	0	0	0
CALARASI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLUJ	19	2	0	1	0	0	0	0	0	3	0	1	0	6	1	7	1	9	1	8	1	1	1	2	0
CONSTANTA	10	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	3	0	0
COVASNA																									
DIMBOVITA	15	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	12	0	0	0	0	0	0	0
DOLJ	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	1	0
GALATI	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0
GIURGIU	5	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	0
GORJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HARGHITA	4	1	2	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
HUNEDOARA	12	5	0	7	0	0	0	0	0	5	0	7	0	0	0	0	0	5	0	7	0	0	0	0	0
IALOMITA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IASI	15	10	0	5	0	0	0	0	0	5	0	5	0	2	0	1	0	10	0	5	0	0	0	0	0
MARAMURES																									
MEHEDINTI																									
MURES	10	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	0	3
NEAMT	42	1	1	0	1	0	0	1	0	0	0	0	0	2	2	4	5	5	11	12	13	1	0	0	3
OLT	19	15	2	2	0	0	0	0	0	0	0	0	0	15	2	2	0	0	0	0	0	1	0	2	0
PRAHOVA																									
SATU MARE	12	3	6	0	0	0	0	1	1	0	0	0	0	0	0	0	1	4	5	1	1	0	6	0	0
SALAJ	10	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	2

COUNTY	COMPANIES (NUMBER)	ACTIVITY																							
		TRANSPORT				INCINERATION				TREATMENT				RECYCLING				STORAGE				LANDFILL			
		A	U	AH	UH	A	U	AH	UH	A	U	AH	UH	A	U	AH	UH	A	U	AH	UH	A	U	AH	UH
SIBIU	16	0	0	4	2	0	0	0	0	4	0	5	2	4	0	6	0	1	0	9	1	0	0	1	2
SUCEAVA	8	3	0	2	1	0	0	1	0	0	0	0	0	3	0	1	1	3	0	3	2	0	0	1	0
TELEORMAN	103	0	0	3	6	0	0	4	6	0	0	0	0	0	0	4	3	1		32	70	0	0	2	4
TIMIS	19	3	0	9	0	0	0	1	0	8	0	4	1	6	0	1	1	8	0	9	1	1	0	0	0
TULCEA	5	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	3	0	0	0	2	0
VASLUI	38	21	7	7	3	3	3	1	1	0	0	0	0	17	7	7	3	0	0	0	0	13	2	4	1
VALCEA	7	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	5	0	1	0	5	0	1	0
VRANCEA	16	0	0	10	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	10	2	0	0	3	0
ILFOV	39	0	0	1	0	0	0	0	0	0	0	0	0	6	1		2	28	0	1	0	1	0	0	0
BUCHAREST																									
TOTAL	653	95	26	83	31	12	10	18	18	40	2	39	12	90	20	80	29	163	30	173	123	59	23	59	31

Key A = Authorised
 U = Unauthorised
 AH = Authorised and handling hazardous waste
 UH = Unauthorised and handling hazardous waste

3.4 Summary of Findings

A country in transition like Romania generally does not have many hazardous waste contractors, however, there are a small number of organisations collecting, transporting, treating and/or disposing of hazardous waste. The survey has identified quite a few contractors collecting hazardous wastes for recovery/recycling.

There are a large number of waste collectors in Romania but these are only collecting municipal wastes. Some industrial wastes find their way into this collection stream but this is unofficial and claimed to be small volume. Of course there are small volumes of hazardous waste from domestic sources being collected by these contractors.

These collection contractors generally do not operate the landfill sites; these are generally developed and operated by municipalities. Industries largely transport their own wastes to municipal landfills or operate their own landfills / dumps.

No contractors were identified operating any physical / chemical treatment services.

There are a number of hazardous waste incinerators currently operating in Romania, some of these are operated as independent entities and some are operated by waste generators for their own wastes but which are potential resources for management of other generators wastes. Most of these organisations operate incinerators and a small number operate physical/chemical treatment processes. The identified incinerators are listed in Table 3.4.1 (Incinerators operated by waste generators) and Table 3.4.2 (incinerators operated by contractors).

In addition two major cement manufacturers have large rotary kilns in which they hope to process hazardous waste as a supplementary fuel. At present, Sotem (partly owned by HolCim Romania) accepts small volumes of hazardous waste. Sotem have a blending facility in Campulung co-located with the HolCim cement factory. In addition, they have a semi-mobile separation system incorporating a three-phase (oil / water / solids) Flottweg scroll centrifuge housed in an ISO container. The separation system can be located at suitable sites (such as tar lagoons) and waste pre-processed on site. The uptake of the service is limited due to certain barriers which are discussed in Volumes 1 and 2 of this report.

These conclusions were supported by the Waste Sources Survey which indicated that very few wastes were treated off-site, and of those which were recorded as treated off-site the vast majority were waste oils or lead acid batteries and therefore the “treatment” processes involved were most likely recovery processes. Fifteen of the companies surveyed indicated that some of their hazardous wastes were incinerated.

Table 3.4.1 Incinerators on Industrial Enterprises Own Sites in Romania

Organisation	Type of Incinerator	Gas Cleaning System	Wastes Processed	Capacity T/yr (Total)	Capacity (Currently Used)	Operating (Yes/No)	Likely to meet EU Standards (Yes/No)
Arpechim, Pitesti ¹	3 Incinerators for process emissions 1 liquids incinerator		Acrylonitriles (process emissions) Electroplating wastes!	80 cu.m / hr unknown	Unknown unknown	 Yes	 Unknown
Oltchim, Rm. Valcea	Fixed hearth liquid waste incinerator ²	Acid gas absorber (for recovery of HCl)		18,000	18,000		Possible
Petrobrazi	3 Fixed hearth liquid incinerators 1 Rotary Kiln			5,000 16,500	? 	No ³ No	No No
Petrom, Bucharest	Fixed hearth, dual combustion chamber.	Caustic soda scrubber.	Oil wastes.			No (awaiting authorisation)	No
Uzina Produse Speciale – Fagaras ¹	1 unknown type	unknown	Explosives (own and 3 rd party)	unknown	65 tonnes (2001)	Yes	Unknown
S.C. Kober SRL	Unknown type	unknown	Paints/varnishes	unknown	unknown	Yes	Unknown

1 Process third party wastes as well as their own wastes

2 Oltchim want to add solids handling capability.

3 PetroBrazi claim that at least one is operating but this is considered unlikely to be the case.

Table 3.4.2 Merchant Incinerators Currently Existing in Romania

Organisation	Type of Incinerator	Gas Cleaning System	Wastes Processed	Capacity T/yr (Total)	Capacity (Currently Used)	Operating (Yes/No)	Likely to meet EU Standards (Yes/No)
Mondeco, Suceava	Fixed hearth (2 units)	Gravity settling of heavy particulate only	Clinical wastes	40 kg/hr 10 kg/hr	40 kg/hr (2 nd unit inoperative)	Yes	No
Pro-Air Clean, Timisoara	Fixed hearth, dual combustion chamber.	Activated carbon, alkali scrubber / filter	Clinical and other hazardous wastes	1,200	1,200 ¹	Yes	Possible

¹ In 2001 only operated 39 days but since February 2002 operating full time.