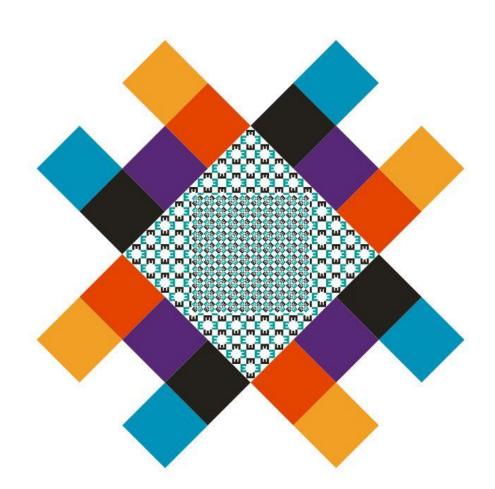


# ECCSSAFE - EXPLORING THE CONTRIBUTION OF CIVIL SOCIETY TO SAFETY Case Study of the Hazardous Waste Incinerator of Dorog, Hungary

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#### **EXECUTIVE SUMMARY**

Chapter I. of this case study is concerning the brief history of incinerator in the town of Dorog. There are several factors why we have chosen Dorog as the subject of this study, for instance the civil participation was really active before and after the Hungarian regime change, so this is an ongoing civil ("watchdog") control. According to the history of Dorog, Chapter I. is dealing with several safety problems of more than 25 years: illegal waste storage and respiratory diseases; emission and slag problems; "waste of Garé"; serious water pollution.

Chapter II. is relating to the role of Environmental Protection Association of Dorog: we are elaborating the aims of public participation, analyzing the tools and strategies of the Association, which has changed a lot during the operation of the incinerator.

Chapter III. is about the experiences of the interviews. Several important conclusions can be drawn:

- From the late 1980s (before the Hungarian regime change) to early 2000s the strategy of the local NGO can be characterized by massive civil resistance, pressure on the incinerator and environmental authorities, demonstrations. From the last huge disaster (water pollution in 2004) the Association has basically changed its model. The new strategy is based on negotiation with the incinerator.
- The NGOs motivate the incinerator to operate correctly, on the other hand they have to trust each other. This trust depends on personal relationship.
- The constant presence of civilian control must be interiorized to the company.
- Without professional expertise the civil organization does not understand the operation of the facility or the relating problems, they cannot control the incinerator.
- It would be the task of the Hungarian state strengthening the civil capacities (this is capacity building in a broad sense).
- The civil contribution to safety depends on personal relationships between civil activists and employees of the industrial facility.
- There is a very poor cooperation between the local and national/international NGOs: they do not share their personal, professional experiences or coordinate their strategies. In the future contribution to the local and national trust, it would be necessary to strengthen the collaboration between the several types of NGOs and to reconcile their interest.

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# 1. BRIEF HISTORY OF THE INCINERATOR OF DOROG AND ITS PROBLEMS

## 1.1. The Importance of Dorog and Considerations for Analysis

There are four main factors why the case of Dorog has been chosen the subject of this analysis:

- a) Relating to the history of the Hungarian civil sphere this is the only case in which before and after the Hungarian regime change the civil participation and resistance was efficient and remarkable.
- b) According to this specificity we can investigate the potentiality and specifications of the social participation, the resources and attitudes of the civil activists.
- c) The role of the civilian control is not particularly significant in terms of violence or preventing the investment. The real importance is the civil ongoing ("watchdog") control, which could point out several misappropriation about the facility.
- d) The inhabitants and civil activists of Dorog have experienced at first-hand why the social participation is so important and how it could contribute to safety culture.

#### 1.2. The Birth of the Incinerator

The idea of incinerator originated back to the Communist ages (in 1984), when the three main Hungarian pharmaceutical company decided to build a incinerator for hazardous waste. Dorog has been accepted for two simple reasons: it situates in the center of an industry region, and 20 thousand barrels of hazardous waste have been accumulated around this area.

The facility met with a huge social resistance, which was really unprecedented before the Hungarian regime change. In 1984 the land-use permit has been withdrawnd by the local authorities and the central government took over the case. Meanwhile the citizens of Dorog started to collect signatures for protest petitions, public forums has been initiated by local organizations. The constructions began in 1985 by the direct force of the Communist government. Before the Hungarian transition the protesters set up one of the first Hungarian green social organization in 1988 (Environmental Protection Association of Dorog). After the regime change the 'Dorog-saga' has not finished, because under the new circumstances the relevance of the social control has been increased. The incinerator was denationalized.

The trial operation of the incinerator was in 1989, the commissioning in 1991, the initial capacity was 25 thousand tons. In 1991, the facility got final approval. Although the incinerator would burn the waste of the three pharmaceutical companies and the county, later the facility's license had been extended to the entire country.

#### 1.3. Safety Problems at the Facility

From the beginning, detailed earlier, operation of the incinerator is burdened with several serious technical and environmental problems. We can say that the incinerator constantly provided causes and reasons to the civil participation and control.

#### 1.3.1. Illegal Waste Storage and Respiratory Diseases

At the beginning of the operation, in the first part of 90s thanks to the investigation of Environmental Protection Association of Dorog, it came to light that the incinerator stored hazardous waste at the local railway station without any permission and safety measures. Although the company was fined 25 million Forints, this was not an isolated case. The civil activist of the Association brought to light that the

proportion of children with respiratory diseases has been cautiously increased and by the end of 90s it was more than three times the national average.

#### 1.3.2. Problems with Emission and Slag

In the 90s there were also several problems with the filtration system, namely the dust removal equipment did not meet the emission standards. The company had been operating for a long time with inaccurate, unsuitable emission instruments. In this case the town of Dorog and the public pressured the company and forced it to perform the needed measurements relating to the emission.

It was also a huge problem to remove the slag from the incinerator. The slag was stored for a long time near the facility, without any environmental permission. According to Humusz, a Budapest-based environmental NGO specializing in waste issues: "The company does not have the necessary documentation, which is inevitable for the reliable and safe operation. Although the incinerator has the high level ISO 14001 certificate, the slag is not treated in a proper way. After burning 21 000 tons of waste approximately 12 000 tons of solid incineration residue is generated every year. This amount has been landfilled on the slag landfill of the incinerator, in the city area with no respect to the regulations between 1996 and 1998. The landfilled slag has already significantly polluted the groundwater but not yet the karst water." This caused serious groundwater pollution, according to an expert research chlorinated solvents, carbohydrogens, benzenes, dioxins and different organic compounds can be found in the groundwater. The Environmental Protection Association of Dorog and the whole public sphere pressured the company to eliminate the pollution.

#### 1.3.3. "Waste of Garé"

One of the most important scandals relating to the operation of the incinerator is the "waste of Garé". The case of Garé<sup>2</sup> is very similar to Dorog and the case reveals the problems of incineration itself.

Because of the heavily polluted site, Garé has become one of the most dangerous cases of the Hungarian environmental history. This hazardous waste dumping site in Garé, a small village in southern Hungary, was used by the Hungarian Chemical Company for 10 years during the 1970s and 1980s. Because of financial difficulties the company was unable to comply with the standards and orders of the environmental authorities to clean up the site. In the early 1990s the company established a joint firm with a French hazardous waste incinerator company to build an incinerator near the dumping site. The planned incinerator would have burnt all the waste in one and a half years, but thereafter would have handled additional waste from other places. The problem of hazardous waste treatment and the planned incinerator represent a priority environmental dilemma for the southern region of Hungary. The key question is whether Hungary needs a second hazardous waste incinerator in addition to the existing one in Dorog. Due to strong opposition from the public, the regional inspector refused to issue an environmental permit in this case.

The first Government of Viktor Orbán solved this huge environmental and social crisis by burning the waste of Garé in the operating incinerator at Dorog. Despite the fact that it was technically unsuitable, the Government tried it: during the experimental burnings it has been showed that that the incineration of the waste of Garé emitted six times more dioxins than the environmental limits.

Residents of Dorog protested against the burning of unknown type of toxic waste; the NGO claimed that the incinerator failed to keep its emissions below the allowed maximum.<sup>3</sup> As a result of the civil protest the company gave up the burning process, nevertheless until then a huge amount toxic waste has been

Humusz, 1995

<sup>&</sup>lt;sup>2</sup> Fülöp Sándor (1996). Case Examples from Central and Eastern Europe. Garé Hazardous Waste Incinerator Case. In: REC, 1996 Source: http://archive.rec.org/REC/Publications/BndBound/Hungary.html

<sup>&</sup>lt;sup>3</sup> Gille, 2007 174. p

burnt by the incinerator. In addition, the company tried again the incineration in 2001, and the only thing which prevented this, was the huge pressure by the residents.

#### 1.3.4. Water Pollution

The latest pollution due to the incinerator happened in the summer of 2004. In that summer, the incinerator leaked a huge amount of toxic waste into the soil, contaminating local drinking water sources. According to Humusz, from one of the deposit tanks of the Dorog waste incinerator pollution was leaked out into the Danube and from there to the drinking water of Esztergom. Technical problems, technological indiscipline and human faults caused the environmental catastrophe. The environmentalists expressed their concerns that there were many malfunctions and the company informed the authority with a significant delay and did not even let the authorities' people into the site right away. Furthermore information was kept back so the authorities were not aware of the different pollution materials which were spilled. Due to the lack of information the prohibition of the drinking water consumption came into force with remarkable delay. As a result the inhabitants were drinking the polluted water for many days.

There was no accurate information on the pollution in the water, their composition and therefore not even on their impacts on the human life. The drinking of the water from the pipeline was prohibited temporarily (the inhabitants could drink water in bottles only for weeks). "Residents of surrounding settlements could not drink tap water for two weeks, and the company is now facing not only a huge fine but also an ever-louder demand that the incinerator be shut down."

There were several demonstrations, collecting signatures, residential forums. The NGOs demanded the following:

- to suspend the operation of the incinerator until the entire environmental impact assessment,
- the punishment of the people in charge,
- the remediation of the damaged environment,
- compensation of the city and the inhabitants,
- strengthening the environmental and health authorities in order to be able to prevent stricter the hazardous activities in the future,
- the cost of environmental restoration should be paid by the concerned companies,
- the relevant regulations should be more severe,
- the municipalities and public should be regularly informed,
- and the municipal and public control of companies with hazardous activities should be implemented.

The company and its management have been fined, but there were no further (for instance criminal or administrative) consequences. However, these massive protestations were needed to inform and protect the public.

The operator (at that time, ONYX Hungary Kft.) had submitted a request to the environmental authorities for additional capacity enlargement in September 2004, just weeks after the serious water pollution occurred in Esztergom. Although the authorities gave a free way to the capacity enlargement, many NGOs expressed deep concerns about the company which caused a serious environmental pollution. The increased capacity meant that the absolute amount of emitted pollution was increasing, even if the emission is below the value limits. Based on past experiences, the local NGO considered the capacity enlargement as a serious mistake.

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<sup>&</sup>lt;sup>4</sup> Gille, 2007 175. p

## 2. THE ROLE OF THE LOCAL PARTICIPATION

After the regime change in 1989-1990, the Environmental Protection Association of Dorog continuously struggled against the contamination of the facility. The Association has become a member of Humusz Waste Prevention Alliance, which is a network of Hungarian civil organization and was established in 1995. The civil association has become an unavoidable player at the local politics with several representatives at the town council. One of the matchless outcomes of the Association is establishing a local newspaper, called Green Lines (Zöld Sorok)<sup>5</sup> concerning local and regional environmental issues. It is nearly unprecedented that an NGO can establish and finance a local medium. This was one of the main factors of the success of this environmental movement.

The protests with thousands of participants indicate the power of the organization. Without this continuous civil control the incinerator would have caused several irreversible damages (for instance at the case of Garé). We can say that the civil society contributed to safety and sometimes took over the authorities' responsibility. The case of Dorog was proved awareness-raising at the national level. The fact that the Hungarian public could know about the problems and doubts about the procedure of incineration depended on this persistent civil activism.

According to Kiss: "In modern societies dealing with environmental issues has become a part of everyday life. Making decisions on waste- or water-related issues is part of the public discourse in Hungary as well. The Hungarian literature on public participation discusses different participatory tools applied in particular policy fields. Public participation seems to have greater significance in environmental decisions than any other kind of democratic decision making processes." The Environmental Protection Association of Dorog has proven that in the field of environmental protection there are several formal and informal participative techniques which could be very successful against industrial facilities.

# 2.1. Why Should the Public Participate?

If we would like to understand the civil tools and techniques, we have to answer the question why the public should participate in environmental decisions? There are several arguments relating to public participation. Kiss Gabriella distinguishes six arguments: "Democratic arguments come from the theory of democracy itself and the three models of democracy. Arguments from Habermas' theory are based on deliberative democracy and communication theories. Green arguments are rooted in the concept of sustainability and connected to the model of environmental democracy. The arguments on risks and particularly environmental risks are based on the different risk approaches and assessments. The relationship between science and society could be the basis for the next argument. The behavioral arguments stem from behavioral economics and add a psychological point of view to these approaches."

## 2.2. Tools and Strategies used by the NGO

Sherry R. Arnstein argues "that citizen participation is a categorical term for citizen power. It is the redistribution of power that enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future. It is the strategy by which the have-nots join in determining how information is shared, goals and policies are set, tax resources are allocated, programs are operated, and benefits like contracts and patronage are parceled out. In short, it is the means by which they can induce significant social reform which enables them to share in the benefits of the affluent society." Arnstein classified the types of participation and "non-participation". This typology of eight levels of participation is "arranged in a ladder pattern with each rung corresponding to the

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<sup>&</sup>lt;sup>5</sup> Source: http://dke.hu/index.php/zold-sorok-lapszamai?start=25

<sup>&</sup>lt;sup>6</sup> Kiss, 2014 13. p

<sup>&</sup>lt;sup>7</sup> Arnstein, 1969 216. p

extent of citizens' power in determining the end product." We would like to use this concept to illustrate the evolution of techniques of the Environmental Protection Association of Dorog.

Eight rungs of citizen participation	Type of citizen participation	Tools and Techniques used at the Case of Dorog	Cases, Disasters	When?
(8) Citizen Control (7) Delegated Power (6) Partnerism	Citizen Power	Visiting the Facility Direct Cooperation Interpersonal Relations	-	Last 5-10 years
(5) Placation (4) Consultation	Tokenism	Demonstrations Data Requests		
(3) Informing		Environmental Information Litigation Pressure on Environmental Authorities	Water Pollution "Waste of Garé"	1990s- 2000s
(2) Therapy	Non-participation	Demonstrations		
(1) Manipulation		Civil Disobedience Collecting Signatures Residential Forums Litigation Pressure on Local and Central Power, Environmental Authorities	Problems with Emission and Slag Illegal Waste Storage and Respiratory Diseases	1980s- 1990s

Figure 1 Arnstein's Participation Ladder and the Case of Dorog

According to the safety problems a significant displacement has happened as the local NGO of Dorog changed its strategy and the incinerator accepted the Association as a partner as well. The emergence of this trust structure is the main contribution to safety. Nevertheless, we cannot say that the demonstrations and pressuring were unnecessary, because without these tools the cooperation would not have happened.

# 3. CIVIL CONTRIBUTION TO SAFETY - EXPERIENCES OF THE INTERVIEWS

The management of the incinerator felt for a long time that the continuous public opposition makes them impossible to work properly and destroys the confidence in safety operation. The cooperation might have been improved during the last 5-10 years as the company and the local NGO made an agreement concerning public cooperation. According to that the NGO has the right to visit the incinerator with other experts. The emission data are sent to the municipality regularly.

#### 3.1. Two Strategies: from Civil Activism to Negotiations

As it has been elaborated, the Environmental Protection Association of Dorog changed its participation strategy: from the late 1980s (before the Hungarian regime change) to early 2000s this strategy can be characterized by massive civil resistance, pressure on the incinerator and environmental authorities, demonstrations. Roughly from the last huge disaster (water pollution of Danube in 2004, see Chapter I. Point 3.D.) the Association has basically changed its model. As Mr. Tamás Nádor, environmental activist and representative of Environmental Protection Association of Dorog, pointed out: "The first period is about the legal and civil attack on the incinerator. We used the decisions of the environmental authorities and sued the company several times. In this period the facility has chosen a very flawed strategy: they explicitly denied the existence of the problem and refused to explain the problems to the NGOs and the residents." Mr. Attila Szuhi, policy expert and former activist of Humusz Waste Prevention Alliance, confirmed this statement and pointed out, that the company refused to acknowledge the committed mistakes.

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<sup>&</sup>lt;sup>8</sup> Arnstein, 1969

Mr. Nádor also argued that the Association failed to understand how the incinerator operates exactly. "When the civil control loses its self-control, it could be very dangerous and contra productive." - It has been confirmed by Mr. János Tittmann, Mayor of Dorog. According to Mr. Nádor, the new civil concept is based on negotiations. On one hand the NGOs motivate the incinerator to working correctly, on the other hand they have to trust each other. This trust depends on personal relationship (see Point 4.). This new approach has been incorporated to Charter of Environmental Protection Association of Dorog which is really unique in the Hungarian civil sphere: "The Association implements the social control of industrial facilities by a method based on multi-stakeholder and democratic procedure, and this method takes into account the interests of all stakeholders. At the same time, the Association ensures priority to human health, well-being and environmental protection against the interest of for profit organizations and polluters."

# 3.2. The NGO and the Expertise

Mr. Nádor emphasized that the civil expertise relating to the technical side of the incinerator is crucial, because the civil organization can ask technical details. However, it is quite difficult to control the company, because of the professional and information asymmetry. He also claimed that the Association has no financial resources to employ a permanent expert. This problem has been confirmed by Mrs. Katalin Lágler, general manager of Sarpi Dorog Ltd. She pointed out that the local NGOs have just a very few professional experiences and expertise capacity. Without professional expertise the civil organization does not understand the operation of the facility or the relating problems, they cannot control the incinerator. According to Mrs. Lágler it would be the task of the Hungarian state strengthening the civil capacities (this is the capacity building in a broad sense). From an industrial perspective, this would be very useful, because the NGOs could contribute to the trust toward the facilities. She drews attention to the possibility that without a well-grounded civil expertise the NGOs can arouse panic very easily. So the lack of expertise is very dangerous and could damage the trust.

#### 3.3. Trust between Individuals

According to Mr. Nádor's and Mrs. Lágler's opinion, the civil contribution to safety depends on personal relationships between civil activists and employees of the industrial facility. On one hand this could be invaluable and effective; thanks to these networks the Environmental Protection Association of Dorog has changed its offensive strategy. On the other hand, it could be very dangerous that the civil-industrial partnerships depend on personal relations, for instance the transformation of the organizations could destroy the results which have been achieved. Mr. Nádor put it very clearly out that from a wider perspective of the public the cooperative relationship between the civil sphere and the industrial facility could be seen preposterous. It may occur that the NGOs have been bribed by the companies. Mr. Nádor stated, that creating the trust the local and national green organizations have to find a sensible balance between the negotiation and other strategies. But it is also true, that this interpersonal trust could overflow and impact the trust concerning the incinerator.

#### 3.4. The Role of Communication and Motivation

According to Mr. Nádor the communication plays a crucial role in process of creating trust among residents. Before the strategy change of the Association, one of the main mistakes committed by the company was the lack of the communication. Mr. Nádor stated that the incinerator did not have a communication strategy and person. In this field the things are changing very slowly, Mrs. Lágler said that even today there is no real spokesperson at the company. We have mentioned the role of motivation in the process of creating trust. Mr. Nádor pointed out that the NGOs have to motivate the industrial facilities to working correctly. From other point of views it means that the new strategy of the Association is that the constant presence of civilian control must be interiorized by the company.

#### 3.5. The Local Government as a Mediator

Mr. Tittmann elaborated that the local government and of course the mayor play important role in the process of creating safety. On one hand, the local institutions are at least as critical with the incinerator as the NGOs, on the other hand local representatives mediate between the local public and the company, and at the same time convey the sentiments of the general public regarding of trust. According to Mr. Tittmann, the role of civil activism leads directly or indirectly to strengthening the control systems within the company and the environmental authorities as well.

## 3.6. Strengthening the Cooperation between the Local and National NGOs

Mr. Nádor is convinced that there is a huge difference between the local and the national NGOs' strategy. The national (ex.: Humusz, Clean Air Action Group) and international NGOs (ex.: Greenpeace) are interested in offensive strategies, for instance demonstrations, civil disobedience, collecting signatures litigation. The first part of Dorog's history can be characterized with these techniques. As it has been elaborated here, there was a shift according to the local NGO's (Environmental Protection Association of Dorog) strategy. The new local approach is based on negotiation and close cooperation with the incinerator. Mr. Nádor pointed out that there is a very poor cooperation between the local and national/international NGOs: they do not share their personal, professional experiences or coordinate their strategies. In the future contribution to the local and national trust, it would be necessary to strengthen the collaboration between the several types of NGOs and to reconcile their interest.

#### 3.7. The Nature of the Trust

It has been stressed by all the interviewees that in addition to meeting the legal conditions there is a core element of the trust, this is the sense of trust. According to Mrs. Lágler Katalin the incinerator can support this sense of trust by three ways: industrial security, environmental security and transparency. Mr. Nádor pointed out that the company needs to cooperate with the civil sphere, because it cannot communicate in a credible way. The nature of the trust is very sensitive, because if the incinerator informs the public about the safety it does not necessarily create trust: the civil aspects are crucial building the structures of trust.

# 3.8. Main investments concerning environmental protection at the incinerator

It has been summarized here, what the main environmental investment were during the last 10 years. It was declared by the incinerator, that the installation of these pieces of equipment is motivated by the environmental protection interest declared by the local NGO.

Year	Type of the Investment	Importance of the Investment	
1998	Catalytic dioxin decontamination	The harmful dioxins and furans are atomized to its natural compounds (carbon dioxide, hydrochloric acid and water) during catalytic oxidation procedures.	
2002	Turbine-generator	It is used to recycle of the calorific value of waste, since water vapor is prepared by the released thermal energy, this vapor is can be used to produce electricity.	
2008	Emergency reservoir pool	The final element of the water safety system, which aims that when the existing water treatment facilities (rainwater pools, water pools, car washing basin, etc.) has become full, this element would provide an additional 3 500 m3 storage capacity by an overflow system, thus among the most unfavorable conditions, liquid phase material will not get out from the facility.	

2009	Inerting container park and extraction	Nitrogen flooding system for storage of liquid waste in containers. It aims to exclude the formation of an explosive gas mixture (creating an oxygen free environment), as well as
		the extraction aims to eliminate a possible diffuse air pollution

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<sup>&</sup>lt;sup>9</sup> http://lithgow-schmidt.dk/sherry-arnstein/ladder-of-citizen-participation.html

<sup>&</sup>lt;sup>10</sup> Source: http://www.humusz.hu/hirek/biggest-hazardous-waste-incinerator-hungary/753

<sup>11</sup> Source: http://archive.rec.org/REC/Publications/BndBound/cover.html

# Appendix I - Method of Case Study and Interview Questions

The case study of Dorog is based on desk research and interviews of different stakeholders. According to *Deliverable 1: Theoretical and methodological framework (19 February 2015)* the interviews have been built on a very various range of practical experience: industry, experts, and civil society, local communities (see the detailed profiles in the *Appendix II*). Unfortunately the Hungarian environmental and nature protection systems have been transformed in the recent months. The Environmental and Natural Protection Authorities have been integrated to the local Government Offices, which are the parts of the central Government at county level (there are 20 Government Offices in each counties and one in Budapest). Up to the closing date of this final version of the case study we do not receive a response about our interview's request with a representative of the competent Environmental and Natural Protection Authority.

That's why the theoretical and methodological framework aimed that the interviews will be semi-directive and a qualitative rather than quantitative survey, on one hand we have used the interview guidelines and on the other hand we have modified and completed at some points these questions according to Hungarian case. We have invited the interviewees to present as much freely their experiences as they can. We detail hereunder the different questions that have been covered during the interviews.

#### A. Understanding of Safety and Safety Culture in the Case Study

- How do you define the concept of safety regarding to the incinerator? When does the facility operate safety?
- How do you evaluate this concept of safety?
- In addition to meeting the legal conditions, are there any requirements which are mandatory in the case of this facility? If so, which ones? (Please explain your answer!)
- What kind of actors' opinion matter according to safety operation of the waste burner: politicians, experts, civil society? (Please explain your answer!)

#### B. Definition of Safety as a Public Affair and Definition of the "Public" Associated to Safety

- What are the resources available and used by the civil society to address safety issues? Is it possible that expert resources are available for the civil society? If yes, what kind of?
- How do civil society actors access to information about hazardous activities and safety issues? For operators, authorities and experts, what are the rationales for making information available or conversely for concealing information?
- How can the public contribute to the safety? How can the public reach this contribution?
- Did local or national NGOs have a role regarding management problems in the incinerator? Is there any case when the local community has revealed a problem?
- How do the incinerator and the civil society work together during the normal functioning of the facility? What are the relationships between experts and civil society in addressing safety?
- How do the incinerator and the civil society work together when technical problems occur?
- How can the NGOs contribute to safety?

C. Governance of Hazardous Activities and Safety Governance and Controversies and Co-framing of Safety Issues with Stakeholders

- What kind of actors exists in relation to the safety of the facility?
- What are the interactions between the various actors as regards safety? How are these interactions environmental restorationformally or informally organized and regulated?
- What are the roles of the different actors? How are these roles articulated?
- What were/are the main problems, disasters and security risks in the history of the incinerator?
- How could/can these safety issues be handled by the local and national public sphere?
- How could/can these safety issues be handled by the local and national NGOs?
- What are the identified controversies? How did they develop? Were they solved and how? What were the positions of the different actors in the controversy?
- How did the framing and understanding of safety issues evolve through time?

#### D. Trust

- Is there trust or distrust between actors? What are the conditions explaining trust or distrust?
- Were there specific events influencing trust between actors?
- What is the role of technical processes, devices in the level of trust in industrial safety?
- What is the role of workers in the level of trust in industrial safety?
- What did your organization/company/institution do to increase the level of this trust?
- Did the contribution of public increase the level of trust?
- How do the local citizens evaluate the activities of incinerator?
- How did/do the local and national NGOs influence the local citizens? How did/do these NGOs influence the public opinion according to incinerator?

# Appendix II - Profiles of Interviewees

**Mr. Attila Szuhi**, energy policy expert and former activist of Humusz Waste Prevention Alliance<sup>12</sup>, which is a national NGO relating to environmental protection.

**Mr. János Tittmann**, Mayor of Dorog since 1994, between 2002-2010 Member of the Hungarian Parliament. <sup>13</sup> http://dke.hu/

**Mr. Tamás Nádor**, environmental activist and representative of Environmental Protection Association of Dorog, which is a local NGO.<sup>14</sup>

Mrs. Katalin Lágler, general manager of Sarpi Dorog Ltd. <sup>15</sup> (member of Veolia Group<sup>16</sup>) since 1997.

<sup>&</sup>lt;sup>12</sup> Their mission: "Humusz Waste Prevention Alliance, originally established by five Hungarian environment protecting organizations in 1995, works for presenting waste poor, environment conscious solutions and lifestyle examples. We do show that there is a form of being, in which money and consumption are not prior to everything else, but one may still be satisfied within it. With the solutions recommended by us we wish to revive the small, local communities, to turn people towards each other again, instead of turning towards objects, and to restore trust through common adventure.... The objective of Humusz is to make sustainable production and consumption an everyday practice in Hungary. We work in order to create the will, to disseminate the knowledge required and to develop the societal, economic and environmental framework of conditions needed. In this regard we consider civil communities, teachers and students attending higher education to be our outstanding allies. Our tools include the provision of information, education and consulting, the research for good practices, developing and establishing waste prevention examples, and the stimulation of community co-operations." Source: <a href="http://www.humusz.hu/english/one-day-you-will-end-humusz-anyway/721">http://www.humusz.hu/english/one-day-you-will-end-humusz-anyway/721</a>

Source: http://www.dorog.hu/index.php?nyelv=angol

<sup>14</sup> Source: http://dke.hu/

<sup>15</sup> Source: http://www.sarpi.hu/fooldal/lang:en

<sup>&</sup>lt;sup>16</sup> Source: http://www.veolia.com/en

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