EFFACE

European Union Action to
Fight Environmental Crime

The Aznalcollar and the Kolontar Mining accidents

A case study on mining accidents and the criminal responsibility of operators and administrations

Work Package 4 “Case Studies”

This project has received funding from the European Union’s Seventh Framework Programme for research, technological development and demonstration under grant agreement no 320276.

ACKNOWLEDGEMENT

The research leading to these results has been carried out as part of the research project "European Union Action to Fight Environmental Crime" (www.efface.eu). EFFACE is a collaborative effort of 11 European universities and think tanks and is coordinated by the Ecologic Institute (www.ecologic.eu). The research leading to these results has received funding from the European Union FP7 under grant agreement No 320276.

AUTHOR(S)

Teresa Fajardo del Castillo, University of Granada

Juan Fuentes Osorio, University of Jaen

With thanks to:

Bridgit McQue, Former British prosecutor and consultant in legal translation

Manuscript completed in December 2014.

This document is available online at: www.efface.eu

This document should be cited as: Fajardo, T, Fuentes, J. (2014), The Aznalcollar and the Kolontar Mining Accidents: A case study on mining accidents and the criminal responsibility of operators and administrations. A study compiled as part of the EFFACE project. Granada: University of Granada and University of Jaen.

DISCLAIMER

ABSTRACT

Mining activities are of tantamount importance for the EU that has approved in the recent years different strategies in order to guarantee the mineral supplies that our industry requires. Authorisations, licencing procedures and liability regimes that must be complied with by mining operators as well as Administrations responsible for them, are matters of major concern. Mining activities that are highly profitable may test the effectiveness and capacity of deterrence of environmental criminal law for violations of licences and liability regimes. Big companies can afford to damage the environment and then delay legal proceedings but in other cases they cannot survive the cost of compensation and the penalties. The case study assesses the effectiveness of the EU environmental criminal law and liability regime to prevent and to resolve these problems in EU Member States, examining cases in Spain and Hungary.

Table of Contents

List of Figures

List of Abbreviations

CrimC	Criminal Code
EC	European Community
EEC	European Economic Community
FJ	Legal Argument
IPPC Directive	Integrated pollution prevention and control Directive
MAL	Magyar Aluminium, (Hungarian Aluminium Production and Trade Company Limited by Shares, MAL Rt.)
NGO	Non-governmental organisation
STS	Judgment of the Spanish Supreme Court
STSJA	Judgment of the Andalusian Supreme Court (Tribunal Superior de Justicia de Andalucia)
WP	Work Package

Executive summary

Mining activities are of tantamount importance for the EU that has approved different strategies in recent years in order to guarantee the mineral supplies that our economies require. Authorisations, licencing procedures and liability regimes that must be complied with by mining operators as well as the administrations responsible for them, are matters of major concern. Mining activities that are highly profitable may test the effectiveness and capacity of deterrence of environmental criminal law for violations of licences and liability regimes. Big companies can afford to damage the environment and then delay legal proceedings but in other cases they cannot survive the cost of compensation and the penalties, and they may leave victims without justice and heavy monetary burdens on governments. The case study assesses the effectiveness of the EU environmental criminal law and liability to prevent and to resolve these problems in EU Member States, examining cases in Spain and Hungary.

Legal lacuna and loopholes in the mining laws have been exposed by accidents and catastrophes that triggered the adoption of new EU legal regimes in order to better regulate the management of mining waste and the restoration of sites as well as those aspects of the licensing procedures and liability legislation that required a special regime.

Mining activities are a field that particularly exemplifies that the administrative dependence on criminal law may become a serious obstacle to prosecuting and sanctioning environmental crimes. Criminal law depends heavily on the administrative legislation, and in particular, on a diligent application by the administrative authorities. Criminal law can only play its intended role if the administrative rules have been properly applied and national authorities acknowledge their breach. Lack of adequate controls, active toleration of infractions and malpractice by the administrative authorities have been a recurring problem in the origin of industrial accidents, and in particular, in mining accidents.

The Aznalcollar case demonstrated the relevance of enforcement mechanisms for updating environmental standards, the content of environmental authorizations and determination of an appropriate legislative framework to enforce liability for legal persons.[1]

The Kolontar case shows that even though Hungary complied with the Environmental Liability Directive (ELD), the incorrect enforcement of the waste management directive undermined the enforcement of the former and other directives.

In both cases, the companies, Boliden-Apirsa and Magyar Alummina Ltd. did not pay for the total damage caused, raising many questions about the gaps of EU environmental liability legislation as well as its enforcement and the need to have a better and coordinated implementation of the EU directives.

[1] The interview with the Spanish Prosecutor in charge of the Environmental Protection Office has highlighted the influence of this Spanish case in the further legal developments that took place at the European Union level as well as at the domestic level. At first, judges considered that standards of protection of the Aznalcollar Mine were adequate according to traditional practices and standards.

1 Introduction

Mining activities are of utmost importance for the European Union economy. In recent years, the EU has approved different strategies in order to guarantee the mineral supplies that European economies require.[2] Mines are also the origin of pollution and accidents that put the EU environmental standards of protection at stake. The authorizations and permitting procedures that must be complied with by operators as well as administrations in charge of them have become a matter of major concern and their infringements can be not just an administrative infraction but also an environmental crime. Mining activities that are highly profitable may test the deterrence capacity of administrative and criminal laws as well as the liability regime adopted by Member States to prevent environmental damage. Legal gaps and loopholes in the mining laws have been exposed by accidents and catastrophes that triggered the adoption of new EU legal regimes in order to better regulate the management of mining waste and the restoration of sites as well as those aspects of the licensing procedures and liability legislation that required a special regime.

Mining activities are a field that particularly exemplifies that the administrative dependence of criminal law may become a serious obstacle to prosecuting and sanctioning environmental crimes. Criminal law depends heavily on the administrative legislation, and in particular, on a diligent application by the administrative authorities. Criminal law can only play its intended role if the administrative rules have been properly applied and national authorities acknowledge their breach. Lack of adequate controls, active toleration of infractions and malpractice by the administrative authorities has been a recurring problem in the origin of industrial accidents, and in particular, in mining accidents. The authorizations and permitting procedures that must be complied with by operators as well as administrations in charge of them have become a matter of major concern and their infringements can be not just an administrative infraction but also an environmental crime.

This case study assesses environmental crimes related with mining activities as well as the effectiveness of the EU environmental criminal law and liability regimes to prevent and to solve these problems in two EU Member States, examining leading cases in Spain and Hungary: the Aznalcollar and the Kolontar mining accidents. In both cases, criminal charges were brought against the operators and the administrations with different results. In the case of Spain, the criminal charges were dismissed. In the case of Hungary, civil law and criminal law proceedings are still on-going before the Hungarian courts.

[2] In the foreword to the EC Guidance on undertaking new non-energy extractive activities in accordance with Natura 2000 requirements, the Commissioners for the Environment and Industry and Entrepreneurship said that "Europe's manufacturing and construction industries are heavily dependent on the non-energy extractive industry for essential raw materials. The economic imperatives are clear: the sector had a turnover of around €49 billion in 2007, and it provided employment for some 287,000 people. Downstream sectors reliant on a steady supply of raw materials swell that importance even further. To build the economy of tomorrow, we have to take care of our environment today. This means that the extraction of raw materials must be done with a concern for the natural world to ensure sustainability." See European Commission (2010), *EC Guidance on undertaking new non-energy extractive activities in accordance with Natura 2000 requirements*, p. 4.

Three main aspects are developed in this report:

- The role played by Administrations in the management of mining activities and especially facing catastrophic scenarios after mining accidents, as seen in the Kolontar Case.
- Identifying what motives and factors determined criminal responsibility in these cases. The lack of due care of operator and administrative authorities are two of the main reasons.
- The application of a liability regime on environmental damage.

Among environmental crimes, this case study also helps to characterise the main features of:

- Infringements of the licence conditions by the operator which, depending on the seriousness of the breach, can be either an administrative offence or a crime, and give rise to administrative, civil or criminal responsibility depending on the system chosen by each Member State.
- Failure of the Administration to monitor the activities carried out under the licence and to update the standards of protection.
- The seriousness of the damage caused to the environment, the local population, the local and national economy.
- The difficulty of obtaining adequate compensation for the damage to the environment and population.
- The inadequacies, shortcomings and loopholes of the investigations and legal systems that can hinder the enforcement of criminal laws.

2 Methodology

Analysis of mining accidents (facts, legal framework, case law, resolutions and subsequent consequences) is made from a criminal legal perspective and using the legal rules applicable, academic and official literature and related case law.

An academic visit to Doñana National Park affected by the Aznalcollar accident was made with a Professor of Ecology and two interviews with officials were conducted. An exchange of letters with the Hungarian authorities provided just documentation of their proposals for a Liability Fund and they refused to provide information regarding the criminal investigation on the basis that they could not do so as the matter was *sub judice*.

Many studies have already been carried out on this subject (see list of references). None of these studies have examined the criminal liability of operators and administration in detail. IMPEL analysed the Kolontar case [also known as Red Sludge/Mud Case] pointing out the need to improve the liability regime but did not explore criminal liability of actors.[3] This case study considers whether the legal measures that have been adopted afterwards have achieved the goals of prevention and compensation for environmental damage.

[3] IMPEL (2011), "Massive alumina red sludge release after the failure of a containment dam", in LessonsLearnt from Industrial Accidents, IMPEL Seminar, Aix-en-Provence 16 and 17 November 2011, pp. 21-28.

2.1 General research issues

Among environmental crimes, this case study helps to characterise the following main factors:

- Environmental crime depends not just on the causation of damage; it also requires the infringement of an administrative rule or a legal provision. There is no infringement when the activity producing an ecological disaster or an accident has been authorised by the legislator or/and the administration.
- Failure of the Administration to update the requirements of the licence taking into account the standards of protection, as well as monitoring the activities carried out under these licences.

Both cases show that the lack of monitoring and the malpractice of inspectorate services are some of the causes of mining accidents that can also be identified as crimes related with environmental protection. Active toleration, malpractice and corruption are manifestations of environmental crimes that are some of the most important problems hindering the enforcement of EU environmental law.

Among environmental crimes, both cases help to characterise the main features of:

- The seriousness of the damage caused to the environment, the local population, the local and national economy.
- The difficulty of obtaining adequate compensation for the damage to the environment and population.
- The inadequacies, shortcomings and loopholes of the investigations and legal system.

In the mining sector, this case study helps to understand the main motivation to commit an environmental crime:

- The motivation of operators adopting illegal conduct that can lead to environmental damage and crime.
- The motivation of administrations and civil servants not updating the environmental values and standards of regulations and tolerating and permitting activities that can produce environmental damage and be classified as environmental crimes.

Some of the purposes served by the illegal conduct of the operator just serve to cut costs. Some of the purposes served by the illegal activities of the administration are:

- The general interest. It is considered that priority should be given to economic and production factors, including providing employment in areas where there is considerable unemployment rather than the environment and that this will benefit the entire society.
- The particular interest may be obtaining a financial benefit by the public institution and the particular individual or company involved. This activity may result in corruption. Environmental organized crime in Spain is mainly manifested in this way.

Also, in the case of the administration, motives vary from cuts in the budget dedicated to environmental protection, in particular, monitoring, to the "dismantling the authorities"[4] leading to flaws in inspections, and softening-up licensing practice as a result of the cut-backs at the environmental protection authorities.

[4] Javor, B. and Hargitai, (eds.) (2011), The Kolontár Report: Causes and Lessons from the Red Mud Disaster, p. 38, available at http://lehetmas.hu/wp-content/uploads/2011/05/Kolontar-report.pdf., last consulted on 12 December 2014.

The lack of enforcement procedures or their malfunction encourage environmental harmful conducts and in some cases are at the root of environmental crime, involving criminal liability of civil servants.

2.2 Problems of enforcement of environmental law

These mining accidents have some aspects in common and share some legal challenges for the enforcement of environmental law and environmental criminal law. So, both accidents in this case study raise countless questions on the shortcomings and loopholes of the existing legislation when the catastrophe occurs regarding:

- Licences and authorisation procedures,
- Mechanisms to update environmental standards and requirements according to scientific knowledge.
- Remedial measures,
- Financial guarantees and legal liability, both criminal and civil.

There was inadequate regulation of all these issues during the years when the accidents occurred that has been corrected at the national and European levels. On the other hand, those mining activities that are highly profitable may test the capacity of deterrence due to the low sanctions and fines set out for violations of licences as well as those regulations on waste management.

2.3 Data availability

Case law, literature and institutional reports provide data.

- The Aznalcollar case has been analysed widely by Spanish and international academics as well as in European reports and since the trials against the main actors are still open there will be more literature in future years. However, most of the literature has focused on civil and administrative aspects and there is a very limited number of studies on the criminal aspects.
- In the case of the Kolontar case [AJKA, Red Mud], Hungarian NGOs and academics have mostly focused on liability aspects of the catastrophe as well as the criminal liability of those in charge of the facilities. The company has fully explained its position through corporate declarations in its website.

However, there are some shadow reports denouncing the veracity of some official reports. These reports will be examined as part of the literature.

Some documents in the Kolontar case have been classified by the government as confidential:

- The 2012 Report of the Fact-finding Committee of the Hungarian Parliament.
- The National Investigation Office and the police reports on the criminal liability of operators and administration.

The Hungarian authorities have manifested that they will provide these documents once the courts adopt their decisions on the case.

3 Aznalcollar

Figure 1 Aznalcollar Tailings Pond in 1998.

Source: http://icogblogs.com

3.1 Introduction

At 00:30 a.m. on Saturday, April 25, 1998, the mining waste dam of the Aznalcollar mines, owned by the company BOLIDEN-APIRSA collapsed.[5] This provoked a toxic spill in the Agrio River that reached the bed of the river Guadiamar.[6] It affected a wide surface area, 4,634 acres spread over nine municipalities of the province of Seville, including the National Park of Doñana. Heavy metal sludge with a high concentration of zinc and arsenic covered the affected area.[7] In the early days of the disappearance of the entire aquatic fauna of the Guadiamar river, over 30,000 kilograms of dead fish were collected.[8]

The accident of Aznalcollar 1998 was a disaster foretold and became a landmark in mining in Europe. NGOs consider it as a clear case of irregular administrative license and irregular controls by the Administration. The operator's refusal to assume its responsibility and its main defence was that the Administration had tolerated the hidden defects of the dam construction and enlargement from its origin

[5] BOLIDEN-APIRSA operated the mine site Aznalcóllar. It was a case of administrative concession (Art. 3 of Law on Mines 22/1973, of 21 July).

[6] "The toxic flood got to reach 3 to 4 feet of water level rise and mud in places. the average width of the affected band was about 300 meters. The length of the area contaminated by the sludge along the Guadiamar river reached 45 Km. however, acidic waters, laden with heavy metals in solution doubled this distance, as they came to the mouth of the Guadalquivir River", Greenpeace (1999), p.10.

[7] See on the level of soil contamination: http://edafologia.ugr.es/donana/aznal.htm

[8] "As of May 27, 1998, the authorities had collected 37 tons of dead fish (it was carp 75-80%, 10-16% in albures, 6-8% barbel and eels 4%) and other aquatic macroinvertebrates. They also pulled lifeless among others, amphibians (frog perezi), birds (storks, mallards, coots) and mammals (rabbits) "GREENPEACE 1999: 10 and ff.

until the disaster occurred. 15 years later, the Courts have not yet settled the liability of the actors involved.

Now the mine is going to be reopened after the Regional Government has authorized it, even if there are still pending civil liability trials and it will constitute a case of mining in the vicinity of Doñana, one of the most important natural areas in Europe. Now the wet technology that produced the waste that multiplied the damage caused by the mining activity will be substituted by the dry technology that is being introduced in most mines in Europe.

3.2 Licences and authorisation procedures:

In the Aznalcollar case study, there were some irregularities and infringements in granting licences and monitoring them (in particular, those regarding the construction and reform of the dam in order to increase its capacity).

In 1996, the tailings pond was enlarged without an environmental impact assessment. All possible checks on the feasibility of the dam were not performed. And finally there were no monitoring activities carried out.

There was not sufficient evidence to establish the actors' criminal liability. The Court considered that the cause of the accident was the *unpredictable* defect in the structure of the dam and its enlargement (the operator and the administration were not negligent because the judge considered that the standard of protection that was adopted was the one considered as traditional), and ruled out the possibility of considering the lack of environmental impact assessment as a contributing cause.

3.3 Case Law

3.3.1 Criminal proceedings

On 25 April 1998, an administrative disciplinary proceeding was initiated for damage to the Guadalquivir river basin.[9] It was temporarily suspended until the criminal case was resolved. On 27 April 1998, the criminal proceeding was initiated with the aim of establishing the possible criminal liability. 25 people – among them technicians of BOLIDEN-APIRSA and construction companies, board officials and the Guadalquivir River Basin Authority who had to monitor the dam mining- were charged.[10] The Court of First Instance and Instruction nº. 2 of Sanlúcar la Mayor (Seville) issued a Decision of 22 December 2000[11] to adjourn the case sine die, as it did not want to continue with the trial because it appreciated that the conduct did not constitute a criminal offence. The Provincial Court of Seville by resolution of 16 November 2001 upheld the order of the court, thus terminating proceedings.

Both decisions are of the outmost importance to understand the problems when seeking to convict and finally they show the difficulties in enforcing environmental law:

- The operator when it has acted under a legal licence.

[9] The Guadalquivir River Basin Authority initiated administrative proceedings against Boliden Apirsa based on Articles 89, 108 f), g) and 110.1 of the Water Act 29/1985, of 2 August, (valid until July 25, 2001).

[10] 12 workers of GEOCISA, 7 of BOLIDEN-APIRSA, 3 of engineers Intecsa (subsidiary of Dragados), 2 officials of the Government of Andalusia, one official of the Spanish Technological Institute Geominero (ITGE).

[11] Reference Aranzadi: JUR \ 2001 \ 129392.

- The Administration for not updating the environmental legislation and for omission of the duty of control and sanction.

What type of criminal liability could have been established for the toxic spill?

First, in 1998, the operator BOLIDEN-APIRSA could not be held criminally liable directly. The Spanish Criminal Code of 1995 introduced in its Art. 129 heteronymous criminal liability for legal persons. This Article envisaged the implementation of "accessorial consequences" for legal persons, as post-crime security measures that were intended to prevent the continuation of the criminal activity and its effects. This model had two limitations:

- It required the conviction of a natural person for act or omission, with a link with the company and acting in favour of it. Therefore, when in the case, it refers to the responsibility of the company actually it refers to the liability of persons linked to it.
- CrimC did not contemplate at this time the possibility of imposing fines. However, paragraph 2 of Art. 31 CrimC incorporated by Act 15/2003 introduced joint liability for both the legal person and the natural person associated with the company. This measure was considered by some sectors of academia as the establishment of a penal sanction (fine) on legal persons. The problem raised is that it implied imposing a penalty on a subject that had not actually committed the crime nor had been convicted, which represented a breach of the principle of guilt. To avoid this criticism, it was argued that this was a civil tool to ensure payment of the fine by the convicted individual. Act 5/2010 reforming CrimC was the first to introduce autonomous criminal liability of legal persons.[12]

Secondly, the tailing pond could have generated criminal liability for various reasons according to the 1998 legal framework: for creating an illegal waste deposit,[13] according to Art. 328 CrimC[14] that stated then that "Whoever establishes deposits or landfills or solid or liquid waste or residues that are toxic or hazardous and may seriously damage the balance of natural systems or the health of individuals"….. (Art. 328 CrimC).[15] The possibility of applying this provision to the tailing pond and the spill[16] was not envisaged by

---

[12] A crime must be committed by an individual acting on its behalf (Art. Bis.1 CP 31), but a finding of guilt was required. In addition, a system of penalties, strictly speaking (Art. 33.7 CP) is created which includes the fine.

[13] After the accident, it was revealed that other industries operating in the vicinity of the mine were depositing dry and wet waste in the dam. See Kramer (1999), p. 14.

[14] See eg Alicante Judgment of the Audiencia Provincial 223/2002 of 27 April, found punishable under Article 328 CrimC a company dedicated to waste disposal, without having an administrative license for the management of hazardous waste, for pollution caused by heavy rain dragging sludge and liquids from deposits with poor storage containing various toxic substances.

[15] Now, Art. 328.1 CrimC, after the reform introduced by Act 5/2010, says "A sentence of imprisonment of six months to two years, a fine from ten to fourteen months and special barring from profession or trade for a term of one to two years shall be imposed on whoever establishes deposits of landfills or solid or liquid waste or residues that are toxic or hazardous and may seriously damage the balance of natural systems of the health of individuals".

[16] See eg Alicante Judgment of the Audiencia Provincial no. 223/2002 of 27 April, see footnote 15. This possibility has been already adopted by the Supreme Court in its judgments no. 1914/2000 of 12 December, no. 215/2003 of 11 February, no. 875/2006 of September 6, no. 486/2007 of 30 May, no. 81/2008 of February 13, no. 916/2008 of 30 December; no. 323/2013 of 15 April. Fuentes (2011) considers that this solution leads to situations where it violates the double jeopardy principle. The effect of the current Art. 328.1 CrimC is on the same scale as Art. 325 CrimC (specifically forms of preparation or attempt thereof), see Fuentes (20119, p. 56 and ff.)

the Court and it was discarded due to the existence of more serious criminal behaviour, namely dumping, punishable by Arts. 325 and ff. CrimC. However, this option should have been considered at least as an alternative. In fact, the failure to sanction the spill should have led to consideration as to whether Art 328 CrimC could have been applied, for the existence of a deposit of toxic waste that could have been illegal due to the absence of an administrative authorization or for breaching administrative regulations. Surely it should have been considered whether this deposit met these requirements, and it would have triggered an investigation, at least regarding the enlargement of the dam and the possibility that there was an abuse of rights in obtaining authorization for it, due to the use of incorrect or incomplete data.

This possibility of prosecuting the company for the establishment of an illegal deposit would have been adequate according to EU legislation - Directive 75/442 on waste-, because the tailing pond for decantation procedures was also used as a waste deposit, receiving different types of waste from the Aznalcollar and Los Frailes mines.[17] Kramer (1999) clearly presented the case and appreciated the application of Directive 75/442 considering and excluding all the possible exceptions that were foreseen in this Directive. So he argued there were consequences for the Operator and Spanish Administration derived from the application of the Directive:

- "Obligation of having an authorization to eliminate waste (Art. 9).
- Obligation of guaranteeing that waste would be eliminated without using methods or process that could damage the environment, and especially without endangering water, air, soil, flora and fauna and without Art. 4.
- Obligation to keep records of the quantities, nature and origin of the waste. (Art. 14)
- Obligation of the Spanish authorities to conduct periodic inspections of disposal operations (Art. 13), (something that never happened).

On the other hand, regarding the responsibility of the Administration, it could be considered that Spain, even though it had transposed it, did not enforce Article 4 Directive 75/442 that stipulates:

> "Member States shall take the necessary measures to ensure that waste is recovered or disposed of without endangering human health and without using processes or methods which could harm the environment, and in particular:
> — without risk to water, air, soil and plants and animals,
> — without causing a nuisance through noise or odours,
> — without adversely affecting the countryside or places of special interest.
> Member States shall also take the necessary measures to prohibit the abandonment, dumping or uncontrolled disposal of waste."

Another approach to the investigation would have shown that the mine's tailing pond had been reformed to increase its capacity and neither the company nor the Administration had checked the security aspects related to the enlargement. Nowadays, the licence would have been considered illegal in obtaining authorization by the use of incorrect or incomplete data due to the Administration's malpractice.

Thirdly, for a polluting discharge, conduct sanctioned by Art. 325 CrimC that requires that a spill in violation of administrative regulations has the capacity to seriously affect the balance of natural systems. When, in addition, there had been a risk of irreversible or catastrophic impairment an aggravated crime could be determined, (Art. 326.e CrimC). The Court considered that there was an illegal discharge meeting

[17] It could never be proved that waste from other industrial activities in the area was also deposited in the pond, but it was general knowledge.

the objective requirements of the crime.[18] However, the Court found that there was no *mens rea* in the conduct of the accused. Therefore, their only responsibility could be by means of recklessness. The CrimC includes the possibility of liability for negligence for the crimes referred to in Art. 331 CrimC (gross negligence).

Fourthly, for the production of serious damage to the defining elements of a protected natural area (Art. 330 CrimC). This Article has a relationship of subsidiarity with Art. 325 CrimC: when the damage is caused to any of the elements used to qualify a conservation area, by any of the means described in this Article (eg by a spill) and also there is violation of administrative law, Art. 325 CrimC will be applied (or Art. 326 CrimC) plus the aggravating factor under Art. 338 CrimC (for interference with a protected natural area). If Art. 325 CrimC cannot be applied, then Art. 330 CrimC is another possibility.[19]

Fifthly, for destruction of flora and fauna (Arts. 332 and 334 CrimC). These crimes not only punish attacks that occur by classical behaviour such as logging or hunting. They also entail a criminal response to other forms of attack present in this case: that the spill caused severe habitat alteration[20] and even affected reproduction of the species[21]. In both cases there needs to be a violation of administrative regulations (though this is not explicitly stated for flora) and serious harm to the environment (to be tested in flora[22] and assumes that harm when threatened wildlife species are affected, as it implies demonstrating endangerment (concrete danger) and even damage to biodiversity)[23]. Again Arts. 332 ff. CrimC assume a subsidiary role: they must be applied when considering whether or not the requirements of environmental crime are met (Article 325 CrimC).

Sixthly, for Art. 329 CrimC, special malpractice of the Administration, which allows sanctioning specific types of malpractice that are not covered by Art. 404 CrimC. Accordingly, "the authority or public officer who, knowingly, has reported favourably on granting manifestly unlawful permits that authorise operation of the polluting industries or activities referred to in the preceding Articles, or who has silenced a breach of laws or provisions of regulations of a general nature thereon during its inspections, or which has omitted the carrying out of the mandatory inspections, shall be punished with the penalty established in Article 404 of this Code and, moreover, with that of imprisonment from six months to three years and a fine from eight

---

[18] Regarding the violation of administrative rules Fuentes (2011) considers that it must be clarified that it has a different function according to the different crimes. So in Art. 328 CrimC, it will have to be determined if the deposit meets the requirements set by law, while in Art. 325 CrimC it should be considered whether the dumping is "legal".

[19] In favour of this solution Silva Sanchez (1999), p. 136, gives the concrete example of deforestation in a protected natural area.

[20] "The first effects of pollution were to be seen quickly in the aquatic ecosystems of the Guadiamar and Brazo de la Torre: changes in floristic species (chlorosis, abnormal growth of new shoots, disappearance of certain species feet, etc.) and severe damage to the aquatic fauna, by the presence of some water with high sediment loads, low dissolved oxygen and acidity thereof (with a pH below 5). This caused the disappearance of the aquatic fauna of the affected area. In the estuary of the Guadalquivir, between the mouth of Brazo de la Torre and Bonanza, the zinc content in the sediment and suspended matter ranged between 800 and 1,700 mg / kg in samples taken between 20 and 22 May 1998 by the CSIC / ICM," Greenpeace (1999), p. 10 and ff.

[21] There were affected birds and 727 birds' eggs and 23 nests, including two heron chicks that were killed and 8 avocets that were affected, as well as 2 chickens of calamon and coot.

[22] The absence of this requirement determines its sanction by Art. 632 CrimC as misdemeanours.

[23] The law in force during that time was the Natural Areas Act 4/1989, of 27 March repealed by the Natural Heritage and Biodiversity Act 42/2007 of 13 December.

to twenty-four months". In the proceedings, in the Decision of the Court of 22 December 2000, this possibility did not arise. However, the Court held that the concurrent administration fulfilled its monitoring and control duties. This is the main problem.

The Court did not consider the possibility of applying Arts 328-330, 332, 334 CrimC, because it chose to apply a possibly more serious criminal behaviour (dumping), so that the analysis of the criminal responsibility of those charged with less serious behaviour was not necessary; the Decision of 22 December 2000 was focused on the existence of gross negligence by Art.331CrimC in relation to Art. 325 CrimC.

Expert Reports were crucial to answer this question. The breaking of the dam, according to experts, was caused by the heightening of the dam, and was due then to a faulty foundation and overweight. Could the accused be charged with reckless conduct?

For legal scholars, it is a clear case of malfeasance of the administration for lack of the necessary control of the dam when monitoring and renewing the authorization, but the following arguments must be considered.

-The proposed dam enlargement in 1996 was conducted by GEOCISA (which in March 1996 had made a report on the stability of the dam). It was a correction of the original plan of 1977 (allowing a saving in time and money). Projects and studies were approved by the administrative bodies in charge of their control (the Provincial Delegation of the Ministry of Industry, Trade and Tourism of the Junta de Andalusia, dated 29 July, 1996), because they thought they were complying in accordance with the then safety standards.

-The private accusation did not provide any expert report in order to prove the responsibility of the accused.[24] BOLIDEN and GEOCISA did however provide expert reports.

-The opinions and reports which supported the acquittal insisted on the fact that the clay on which the dam was built (with a height of 8 floors) had an unpredictable behaviour and that the result should be defined as accidental.

i. BOLIDEN argued that the action of subsoil was unpredictable.
ii. The Centre for Studies and Experimentation of Public Works (CEDEX) of the Ministry of Public Works said that the tailings pond of Aznalcóllar burst when the impermeable subsoil on which it was located broke, which was considered unpredictable according to the geotechnical parameters of those days.
iii. GEOCISA, however, considered in its Report that BOLIDEN was responsible for the burst because the company did not use the dam properly and did not verify the origin of the leaks (which had been reported in the past and that led to the production of stability reports by the company[25]). However, this review was

[24] According to Betancor and Muñoz Lorente (2001), p. 6, this was motivated by the high cost of this type of expert report.

[25] "Years before the discharge occurred that concerns us here, old Aznalcollar miners, employees of the former Environment Agency of the Andalusian Government and environmental groups (Ecological Pacifist Confederation) denounced the worrying state of the tailings dam of Aznalcollar, the limited capacity of the treatment plant of the mine, which was not 25% of the wastewater and the constant seepage of contaminants from the dam to the Agrio river. Since 1994, we reported these facts to the different levels of the Andalusian Government, the Central Government and the European Commission and complaints were filed with the Office of the Provincial Court of Seville and the Court of San Lucar la

relativized by the fact that on 20 April 1998 BOLIDEN forwarded to the Provincial Office of Labour and Industry of Seville a status report on the dam in 1997. In this report, GEOCISA itself confirmed that the dam behaved correctly and that its safety was sufficient.

The Court of First Instance of San Lucar la Mayor (Seville) considered that the performance of the company was, for these reasons, "usual or conventional practice ', according to current standards of care and rules of safety. Thus it was exempted from liability for negligence of Art. 331 CrimC.

This left many questions unanswered.

1. How can it be wise to build a toxic waste dam on land of unpredictable behaviour? Concerning this point, there were some reports that valued negatively the projects of the dam of 1977 and 1996 because they did not take into account the fragility of clays or, in any case, overvalued their resistance[26].
   Thus, the expert report prepared by professors of the Polytechnic University of Catalonia, Antonio Gens and Eduardo Alonso, concluded that "The dam of Aznalcóllar broke for having been constructed in accordance with the provisions of two projects that did not incorporate the considering two key factors in the genesis of instability: a) the fragility of clay and therefore the risk of triggering a phenomenon of progressive failure, and b) high water pressure in aging clay ". They also contended that calculations of both the initial project of building the dam made by subsidiary of Dragados, and the plan of enlargement developed by the company GEOCISA were erroneous: "The strength parameters were chosen from a classical perspective and not the possibility of reduction from progressive failure phenomena, (...). In fact there was no clear indication in the geotechnical investigations previous to the projects about the marked fragility of the blue clay for the foundation. Finally, the water pressures assumed in the calculations were much lower than those that were generated in the impermeable clay layer as a result of the construction of the dam and the wall of the dam and the tailings pond. "Those arguing in favour of company's criminal liability also considered BOLIDEN should have acted differently since the company knew, or should have known, the nature of the soil and the serious shortcomings vitiating the tailings pond (given the numerous complaints filed by environmental groups and the report by one of the mining engineers on the existing leaks in the dam). Given all this, not only could criminal liability for negligence be justified but even for *mens rea*. In fact, BOLIDEN-APIRSA was condemned by the administrative jurisdiction because it had a duty to keep the dam in appropriate safety conditions.[27]
2. How could the Administration consider as appropriate and sufficient an enlargement without taking into account new methods that were not available in 1977? Is this not reckless behaviour of the Administration for not applying the most advanced technology and for failing to demand an updated report? [28]
   The experts cited (Gens / Alonso) indicated in their report "that the application of the best known art or science would have possibly identified the most significant events that led to the rupture of

---

Mayor. However, neither the Spanish government nor the Community took measures to control this untenable situation. Complaints received by the Prosecutor and the Court were filed", Greenpeace (1999), p. 7.

[26] See Betancor and Muñoz Lorente (2001), p. 8.

[27] See STS November 22, 2004 (fd 11).

[28] See Betancor / Muñoz Lorente (2001), p. 8.

the dam." However, they added "in other projects consulted on dikes or dams on clay soils, these issues are not considered. The then norms on safety for dam projects do not clearly specify what is the correct way to deal with these phenomena".[29] For this reason the Court decided that, not being a common practice, there was no negligence. Thus, the behaviour of the company was within tolerable risk levels, marked by the level of demand of the Administration that authorized the enlargement of the dam. There was only one possibility left: to prove that the authorization had been obtained by submitting false data or hiding other relevant data.

There was also the question of whether the administration had some sort of responsibility due to the lack of inspections or because the greatest care was required, which would have led to a new project only being accepted in which the best technique or science was applied. When authorizing a dam for storing highly toxic waste in the vicinity of a river leading into the Doñana National Park that the duty of care of the administration (and company) is clear, it should be higher than normal considering the severity of the damage that could be caused.

3. The judgment of 22 November 2004 of the Supreme Court declared that the failure of the dam was due to the fact that the construction project did not incorporate technical specific requirements. It also stated that if there had been supervising and monitoring devices that detected the stability of the dam, the break would have been prevented, or at least the damage would have been diminished. However, its judgment of 12 December 2011 stated that "it had not been proved to the Court that it was an obligation of the regional administration to verify the adequate technical writing of the project, a task that corresponds to authors and beneficiaries" (FJ 10). A constructive deficiency is the cause of the damage so the lack of environmental impact assessment is not a contributing cause (STS 13 March 2012). The Third Chamber of the Supreme Court, in proceedings for damages against the companies involved in the dam, has confirmed that the administration is not responsible for the abnormal functioning of the inspection and control services of the mine facilities (see SSTS of 29 September 2012, 6 March 2012, 13 March 2012, 12 December 2012). But it should be noted that in these judgments, it is emphasized that there is a lack of responsibility because the existence of “provision obliging the regional administration to make technical inspections of the dam to confirm their good condition for security could not be proved”.[30]
4. In the case of pollution, there may be co-responsibility of the administration due to violation of any of the following duties:
    - to update the rules (requiring the best technique known);
    - to check that the authorizations meet the allowable pollution levels and standards of care in the exercise of the polluting activity in the terms of the authorisation;
    - subsequent monitoring and enforcement of these requirements and limits.

In this case it seems clear that the administrative law blocked a successful criminal prosecution: at least the legal requirement for the best known technique (checking its use in the projects concerned) and the making of a more accurate inspection would have prevented the spill or, in case of failure of these measures, it would have justified criminal liability.

The dam of Aznalcollar, administratively authorized, and the environmental disaster it caused, led to a reflection on waste legislation at European and Spanish levels and to the need to establish greater control over deposits and waste management. This "accident", along with others like the one of Baia Mare in Romania in 2000, brought a change in European environmental legislation.

At the time of the break, Directive 75/442/EEC of 15 July 1975 was in force, as amended by Directive 91/156 / EEC of 18 March 1991. The enlargement of the dam was subject to Directive 85/337/EEC of the

[29] Ibidem.

[30] See STS 13 March 2012 (JUR 130360), FJ 7.

Council of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment (valid until February 17, 2012). Later, Directive 2003/105/EC of the European Parliament and of the Council of 16 December 2003 amending Directive 96/82/EC on amending the control of risks inherent in serious accidents involving dangerous substances and Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC, were adopted. This legal regime was later supplemented by Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

In the Spanish context, this led to a change in the administrative and criminal law that will be presented hereafter. However, it should be noted that the previous European legislation insisted on the problems identified. Directive 96/61/EC of 24 September on the integrated prevention and pollution control submits the implementation of polluting industrial activities including waste to obtaining a permit, to be granted in a coordinated way when the procedure involves several authorities. The IPPC Directive was transposed by Act 16/2002, 1 July on integrated prevention and pollution control[31]/[32]. The law according to this Directive indicates that "integrated environmental authorization must set the emission limit values for pollutants, in particular those listed in Annex 3, taking into account the best available techniques (but without prescribing a concrete technology), the technical characteristics of the facility and its geographical location" (Recital 4 of the Preamble, Law 16/2002).

There is also a significant improvement in relation with the updating of regulations and authorizations. As mentioned in the Preamble of this Act 16/2002: "However, the high level of protection of the environment as a whole to be achieved with this Act requires further integrated environmental authorization, that may be amended *ex officio* in those cases where, even without modifying the technical conditions of the installation, the pollution produced may make it convenient to revise the emission limit values as a result of changes in the best available technologies or when for security reasons it may necessitate using other techniques. In the same way, the integrated environmental authorization may also be changed ex officio when the competent basin Agency considers that there are reasons for this, according to the provisions of water legislation. In such a case, and in the case of intercommunity basins, the requirement of the basin State Agency for the modification shall be binding on the regional authority "(Recital 5 of the Preamble,[33] Law 16/2002).

1. Directive 2006/21/EC was transposed (with a year and a half of delay), by Royal Decree 975/2009, of 12 June, on the management of waste from extractive industries and the protection and rehabilitation of areas affected by mining activities and Directive 2008/98/EC (where authorization options set) by Act 22/2011, of 28 July on waste and contaminated soils.[34]

[31] This law has been developed by Royal Decree 508/2007 of 20 April, on the provision of information on emissions of the E-PRTR and integrated environmental permits, and Royal Decree 509/2007 of 20 April, approving the Regulation for the development and execution of Law 16/2002, of 1 July on integrated prevention and control of pollution.

[32] Currently amended by Law 5/2013 of 11 June that also amends Law 22/2011, of 28 July on waste and contaminated soil and transposing Directive 2010/75 / EU of the European Parliament and of the Council of 24 November on industrial emissions.

[33] This is also expressed in Art. 22.3 Law 16/2002.

[34] The Royal Decree 777/2012, of 4 May, amending the Royal Decree 975/2009, of 12 June, on the management of waste from extractive industries and the protection and rehabilitation of areas affected by mining activities, modifies Royal Decree 975/2009 and indicates in Art. 2.3 that Law 22/2011, of 28 July, on waste and contaminated soil will apply to mining waste not regulated in this provision.

However, the transposition of Directive 2006/21/EC mainly forced the Spanish legislature to unify existing legislation, which, according to the legislator, already envisaged some measures on the management of waste from extractive industries.[35]

2. Act 5/2010 modified the Criminal Code (CrimC hereinafter) and introduced criminal conduct under Directive 2008/99 that were not foreseen in the Spanish CrimC previously: so in the new Art. 328 CrimC was incorporated Art 3b on the collection, transport, recovery or disposal of waste, Art. 3.c on transnational shipment of waste and Art. 3d on dangerous activities of a plant. In Art. 348 CrimC was incorporated Art. 3g on production, importation, exportation, placing on the market or use of ozone-depleting substances. However, as we have stated in the Spanish Report 2015, it has not "generated a significant change in the degree of implementation and enforcement of environmental criminal law."[36] Specifically, the existing criminal law at the time of the catastrophic discharge was appropriate, as ooutlined above, to prosecute the polluting behaviour.

3.3.2 The civil and administrative processes

The prosecution did not end with the criminal proceedings but continued under civil and administrative jurisdictions because the Administration wanted to punish the company and recover the costs incurred for the cleaning-up of the sludge and the recovery of the affected area.

The suspended administrative proceedings were resumed once the criminal proceedings were terminated. The sanctioning administrative file was confirmed by the Agreement of the Council of Ministers of 2 August 2002. It imposed on BOLIDEN a penalty of € 601,012.1 (the maximum permitted by Art 109 of the Water Act), a payment of compensation of € 2,870,181.66 for damage to public water and payment of € 41,606,361.75, for the cost of renovation of the affected area (Art. 110 of the Water Act).[37]

---

[35] "This Royal Decree joins with the Spanish domestic law of Directive 2006/21/EC on the management of waste from extractive industries, which also aims to unify and improve the provisions on environmental protection in the field of research and exploitation of mineral resources regulated by the Mining Act. In this regard, it should be recalled that the Royal Decree 2994/1982, of October 15, regulates the restoration of natural areas affected by mining activities and incorporates in its articles the need for a storage project on waste to be generated by such activities. In addition, Chapter VIII of the General Regulations on Basic Mine Safety Standards, approved by Royal Decree 863/1985, of April 2, laid down in Articles 118 and 119 that sterile dumps, waste tanks, ponds and dams, whatever may be their origin, shall be established in accordance with a duly approved project to consider their temporary and permanent stability. Directive 2006/21 /EC requires the rehabilitation of areas where the mining waste facilities have been placed, as in the existing Spanish mining legislation. The incidence of this policy in our legal system is justified by this Royal Decree and is intended to unify and improve, in whole or in part, the following provisions: Royal Decree 2994/1982, of 15 October, on restoration of natural areas affected by mining, Ministerial Order dated November 20, 1984, Royal Decree 1116/1984, of May 9, on restoration of natural areas affected by open cast coal mines and rational use of these energy resources, Order of the Ministry of Industry and Energy, June 13, 1984, Order of 26 April 2000 amending the Technical Instruction 08.02.01 approval of Chapter XII of the General Rules of Mine Safety Basic Standards' deposits of sludge treatment processes extractive industries'' Preamble RD Royal Decree 975/2009, of 12 June.

[36] See section 5.2 of the Spanish Report: Fajardo, T., Fuentes, J., Ramos, I., and Verdú, J. (2015). Fighting Environmental Crime in Spain: A Country Report. Study in the framework of the EFFACE research project. Granada: University of Granada.

[37] Compatibility of penalties for breaches of duties, damages and replacement costs expressly stated in Art. 130 of Law 30/1992 of 26 November on the Legal Regime of Public Administrations and Common Administrative Procedure.

BOLIDEN'S Appeal

BOLIDEN's appeal against the Agreement of the Council of Ministers in contentious-administrative jurisdiction ended with the judgment of the Supreme Court of 22 November 2004, which upheld the sanctions and insisted on the fact the conduct of the company was negligent due to dereliction of duty, as head of the mine, responsible for keeping the dam in appropriate safety conditions.[38]

BOLIDEN argued its responsibility was not exclusive. Also the designers, builders and companies responsible for maintaining the tailing pond should have at least joint and several responsibility. These were not party to the administrative procedure which failed to consider the relevance of a breach of their contracts. BOLIDEN, on this basis, civilly sued these companies.[39] BOLIDEN requested a joint payment of € 115,213,210 as damages for breach of contract, and the payment to BOLIDEN of the amounts owed under the sanction of the Agreement of the Council of Ministers of August 2 2002. TheSupreme Court decided against the request of BOLIDEN in the civil process on 12 January 2012.

Recovery of the costs of cleaning paid by the Andalusian Government

According to Directive 75/442, the cost of waste disposal should follow the principle "polluter pays" on "the producer of the product of waste", as prescribed by its Art. 11. Moreover, Art. 81 of the Spanish Mining Act[40] established the responsibility of the operating company for damages. However, the implementing regulation (Royal Decree 2857/1978, of 25 August, General Regulations for Mining Regime) in Sections 140-147, which introduced the system of offences and penalties and the procedure to require them, did not contain a provision to enable the administration to claim damages. It only admitted the revocation of the concession and a very modest fine that could be up to € 6,000.

The Regional Government to overcome this difficulty, decided to go to the civil courts to claim compensation for damages and recover € 89,867,545.56 that it had spent on restoring the environment. It built its legal argument on the basis of Art. 1158 Civil Code, which states that "one who pays on behalf of another debtor may claim what he paid." The civil court declared its lack of jurisdiction to hear the claim raised by the Regional Government and that the contentious-administrative jurisdiction was the right forum, Order of 28 December 2002 the Court of First Instance No. 11 Seville). This decision was upheld on appeal by the Decision of the Provincial Court of Seville on 2 October 2003.

When the civil jurisdiction was closed, the regional government passed to the administrative one. Thus, by Agreement of the Governing Council Board of 23 March 2004, the Andalusian Government stated that the BOLIDEN industries were jointly and severally liable for payment of the costs of repairing environmental damage caused by the breakage of the Aznalcóllar mine dam (based on the dubious Art 81 of the Mining Act and Article 1908 Civil Code - On the responsibility of the owners for damage caused-). The BOLIDEN

---

[38] 'Guilt will be attributed to Boliden Apirsa, SL, in choosing that company [Geocisa] and guilt for not having been involved more directly in monitoring the control instruments created to maintain security in a risk situation created by it in the exercise of its activity ", STS November 22, 2004 (fj 11)

[39] Intecsa-Inarsa, designer of the dam, ACS, Actividades de Construcción y Servicios, SA, executor of the construction project, and Geotechnical and Foundations, SA, in charge of maintenance of the pond since 1996 and implementing the dam expansion project, as well as Banco Life, an insurance company ACS and Geotechnics.

[40] Art. 81 of the Mining Act: "Every owner or holder of mining rights under this Act shall be liable for damages incurred by their work, as well as adjacent land use produced by intrusion of work, water accumulation, invasion of gases and other similar causes and committing violations of the requirements in the grant for environmental protection, which are punishable in the manner indicated by the Rules and can be revoked for serious infringement '.

industries (Boliden Apirsa, Boliden AB and Boliden BV) appealed against this Agreement, and after its dismissal, subsequently requested judicial review (each separately) to the Tribunal Superior de Justicia de Andalusia. The Court stated,[41] in the three appeals, that the administrative courts had no jurisdiction to resolve the repayment action. The Andalusian government appealed these three decisions of TSJA, requesting the recognition of the jurisdiction of the administrative courts. The Supreme Court upheld previous rulings.[42]

The Administration could not recover costs under the subsidiary execution mechanism provided for in Article 98 LRJPAC[43] because Art. 81 of the Mining Act did not entitle the Regional Government in this respect. Art. 81 of the Mining Act only contained a reference to the responsibility of the owner or holder of the mining rights but did not grant *locus standi* to the Administration to demand, without going to court, the reimbursement of damages. Subsequently the Andalusian Government formulated a default appeal dated 22 December 2012. The Special Chamber of Conflicts of the Supreme Court resolved the issue in its Decision (Auto n. 9/2012) of 26 April 2012, ordering the case to be remitted to the same Seville Civil Court that had declared itself incompetent a decade previously (Order of 28 December 2002 the Court of First Instance No. 11 Seville).[44]

The current regulation avoids this pilgrimage and guarantees payment of the costs of clean-up and recovery. Law 26/2007, of October 30, on Environmental Responsibility, which transposes Directive 2004/35 / EC of 21 April prescribes in its Art. 1, the responsibility of operators to prevent, avoid and repair environmental damage, pursuant to Art. 45 of the Constitution and the principles of prevention and 'the polluter pays'. At the same time it provides that the competent authority in a case of environmental damage, may at any time (by reasoned decision) require the operator to take the necessary remedial measures at the expense of the subject responsible. According to Gomez Ligüerre (2012: 12) "Law 26/2007 provides a comprehensive solution to the problem that the Regional Government faced when, after restoring the environment, it tried to claim the costs of restoring the damage caused by the accident. In fact, with a probability bordering on certainty, BOLIDEN industries would have been convicted if the claim of the Regional Government could follow the channels established by Law 26/2007. "

[41] SSTSJA of 2 November 2007; of 17 December 2007 and 25 November 2008.

[42] STS November 10, 2011, and two STSS of November 11, 2011.

[43] The Administration may claim the costs of repairing damage from those responsible.

[44] See http://ccaa.elpais.com/ccaa/2012/05/22/andalucia/1337692996_148522.html

3.4 The Present: The Reopening of the Aznalcollar Mines

Figure 2 The outcome of the restoration process: The Green Corridor of Guadiamar River

Source: www.elmundo.es [45]

In January 2014, the Regional Government of Andalusia, (Regional Ministry of Economy, Innovation, Science and Employment Directorate General of Industry, Energy and Mines) undertook an international adjudication process to grant a new concession of 30 years –renewables for 2 more periods-[46] to the best bidder, between the two selected candidates. The priority of the Andalusian Government is to create jobs (estimated at 8.000) and to make mining activities a driving force in the region.

To what extent have the accident and the subsequent regulation influenced the current situation?

The tailings area is out of the zone of exploitation as prescribed in Annex I.1 on Special Technical Instructions Governing the Implementation of the Contract Resulting from the Procurement Adjudication of Mining Rights for the Aznalcóllar Reserve.[47] So, "the dam is currently sealed and closed, and although the

[45] See Image available at http://estaticos.elmundo.es/elmundo/imagenes/2008/04/25/1209059032_g_1.jpg

[46] "The period of validity for the concession shall be up to thirty years, and may be extended for another two equal periods, up to a maximum of ninety years, unless the project terminates at an earlier date. This period shall be granted upon adjudication to the tenderer, and upon compliance with all processes established in distinct relevant legislation, specifically those regarding the Mining, Environmental, Labour Risk Prevention sectors, as well as any legislation affecting local corporations, Transboundary Organisations, etc." See Regional Government of Andalusia, Regional Ministry of Economy, Innovation, Science And Employment Directorate General Of Industry, Energy And Mines Annex I.1 Special Technical Instructions Governing the Implementation of the Contract Resulting from the Procurement Adjudication of Mining Rights for the Aznalcóllar Reserve, available at http://www.juntadeandalucia.es/economiainnovacioncienciayempleo/pam/aznalcollar/Aznalcollar.action?request_locale=en

[47] Ibidem.

rented area of the property includes a series of solar or photovoltaic panels, works may not be carried out in the area, there is not sufficient surface area and there is considerable environmental subrogation"[48].

Concerning liability, the Technical Instructions of the future contract resulting from the Procurement Adjudication of Mining Rights for the Aznalcóllar Reserve prescribe that "The tenderer shall assume the environmental liabilities that are currently assumed by the Regional Government of Andalusia, resulting from the execution of the Environmental Adjustment Plan for the Disassembly and Final Restoration of the Aznalcollar Mining Facilities 2001. This plan, created for the closure of the mining activities, included the following action areas:

1. Completion of the closing of the former tailings pond.
2. Restoration of the northeast debris dump.
3. Restoration of the eastern debris dump.
4. Small debris dumps and areas of material collection.
5. Closure of the Corta Aznalcóllar.
6. Closure of the Corta los Frailes.
7. Closure of the industrial area.
8. Programme of water management".[49]

4 The Kolontar Case

Figure 3 Reservoir nº10 in the Accident of Kolontar

Source: Hungarian Government website for the accident.[50]

[48] Ibidem.

[49] Ibidem.

[50] See http://redsludge.bm.hu/

4.1 Introduction

After the fall of the Soviet Union, Hungary faced the privatisation of an obsolete mining system that at some point was no longer profitable in the context of the global scenario. In 1992, Magyar Aluminínium Zrt.[51] (MAL hereinafter) bought the mine for a fraction of its value under several conditions, the most important being meeting the cost of restoring environmental damage.

On 4 October 2010 at 12.30 p.m., in the MAL complex, an alumina production establishment situated southwest of Budapest in the vicinity of the city of Ajka, the western dyke of sludge reservoir No. 10 collapsed. There were eleven reservoirs in all, containing the red and grey sludge produced throughout more than 50 years of production of aluminium.[52] As a result, some 600.000 – 700.000 m3 of red mud escaped, flooding the lower parts of the settlements of Kolontár and Devecser through the Torna creek. The heavily polluted water flowed through the Marcal, Rába and Mosoni-Duna rivers, subsequently reaching the Danube River. The red sludge wave killed ten people and injured several hundred more.

The disaster affected 16 settlements over an area of 14 kilometres long and 50-1200 metres wide. This area stretches from the northeast corner of the broken dyke to the settlement of Apácatorna, followed by the Torna creek. The total affected area is more than 1000 hectares, which is divided up as follows: 50 hectares of forest, 600 hectares of crop land and 400 hectares of meadows. 47 hectares is part of the NATURA 2000 network and 44 hectares are also subject to nature protection designation.

The bursting of the dam resulted in a wave of highly alkaline water and red sludge which first affected a smaller part (35 houses) of the nearest settlement of Kolontár (only 1 km away from the depository) with a very strong current. Later, it reached Devecser (7 km away) with a weakened wave of sludge, which however covered a much bigger area (207 houses) and 14 houses in Somlóvásárhely. The height of the wave was 2.5 m at the outset.[53]

The Hungarian Government immediately declared a state of emergency in the three affected counties (Győr-Moson-Sopron, Veszprém and Vas).

---

[51] MAL Ltd was owned 100% by the Hungarian Investors Zoltan and Arpad Bakonyi. See Bachmann, J. (2010), "The red sludge tragedy in the Danube basin", Danube Wacht, 3/2010, available at

www.redsludge.bm.hu.

[52] Bachman (2010) defines red-sludge as "the by-product of the principal industrial means of refining bauxite in order to provide clean alumina as a raw material for the electrolysis of aluminium. In the so called Bayer process, bauxite is digested by washing with a hot solution of sodium hydroxide. This dissolves the present alumina into aluminium hydroxide, which dissolves in the hydroxide solution, while the other components of bauxite do not dissolve. The solution is clarified by filtering off the solid impurities. This mixture of solid impurities, including some of the hydroxide solution, is called red sludge. Next, the filtered hydroxide solution is cooled and the dissolved aluminium hydroxide precipitates as a white, fluffy solid; when heated again the aluminium hydroxide decomposes to alumina, which is then used for the production of aluminium. The red sludge is composed of a mixture of solid and metallic oxide-bearing impurities. Its distinctive red colour is caused by oxidised iron, which can make up 60% of the mass of the red sludge. Having been subjected to sodium hydroxide treatment, it is highly caustic, with pH values in excess of 13.2. A typical plant in Europe produces about 3 tonnes of red sludge waste per ton final aluminium. Instant injuries are caused by direct contact with the red sludge: when alkali combines with water, such as the water in the skin, it produces heat, causing skin irritation, burn injuries and even damage to eyes on contact. The severity of the effect and the resulting injury depends on the length of the contact and the concentration of the lye. Sodium hydroxide dissolved from red sludge can destroy the flora and fauna of surface water and can even kill fish. The alkali itself has no long-term effect on the environment, since water dilutes it and hence reduces the pH," Bachmann (2010), *loc. cit*.

[53] Council of the European Union (2011), Red sludge spill in western Hungary - Information from the Hungarian delegation, *ST 14910/10*, 13 October 2011, p. 2.

The rescue forces immediately started rescue operations and introduced further protective measures under the command and control of the Governmental Coordination Committee (GCC), chaired by the Minister for the Interior. The protective measures were aimed at stopping the flow of the red sludge, reinforcing the dyke, and gathering the red sludge and the polluted materials.

The emergency response measures have been implemented with a view to the following objectives:

1. To ensure the protection of the population by the construction of a new dyke in order to divert the flow of another possible sludge wave.
2. To continuously control the pH level of the rivers and to avoid further pollution.
3. To decontaminate the affected area to limit harmful impacts on the environment as far as possible.[54]

The Prime Minister Viktor Orban personally helped the services to dislodge the remaining villagers of Kolontar, who had to leave behind most of their belongings and their animals, due to the risk of new collapses in the reservoir.[55]

In the aftermath of the disaster, the Hungarian Parliament passed a law allowing the state to take control of firms responsible for major environmental disasters. Then the Government imposed on the Aluminium company a 13-member supervisory team led by the Hungary disaster management in chief. In an interview, Mr. Bakondi explained the way the Government took control over the MAL:

> "This was a very interesting legal situation, in which the property relations remained unchanged', he explains, 'the state did not nationalize MAL, their ownership rights were left intact, and indeed the management of the company stayed in place. But we moved in to supervise certain activities of the company, to make sure that certain tasks were carried out, that there would be no unjustified expenditures, and to ensure the long-term operation of the company' The most important job, he adds, was to oversee the change from so-called wet technology, which produces the red sludge as a by-product of processing bauxite, to a dry technology which extracts the liquid from the waste, and makes it easier and much less dangerous to dispose of.
>
> 'Other big industrial accidents have usually destroyed the companies involved. So it was very important for us that production in this case could restart, so that the company would have an income, which would help to finance these technological improvements, as well as the long-term functioning of the company".[56]

The supervision of the State finished on 13 June 2011 and has been considered to have a deterrent effect on other polluters[57] and that "as a result of the pressure of state supervision the plant introduced dry technology in February 2011".[58]

---

[54] Ibidem.

[55] See Thorpe, N. (2010), "Notes from the red planet. Hungary's Worst ever Chemical Disaster", *Hungarian Review*, issue 01/2010, p. 32, available at www.ceeol.com

[56] See Declarations of György Bakondy, Hungary's disaster management chief, in Thorpe, N. (2011), "On Mud and Miracles – The First Anniversary of the Red Sludge Disaster", *Hungarian Review*, Issue 05/2011, p. 7, available at www.ceeol.com

[57] Tóth, I. J. (2013),"Key actors of the red sludge disaster in Hungary", in L. Westra, P. Taylor, A. Michelot (Editors) *Confronting Ecological and Economical Collapse: Ecological Integrity for law, policy and human rights.* Routledge, London, New York, *loc. cit*., p. 152.

[58] Tóth (2013) points out that in the case of dry technology "The by-product of aluminum production is not strong alkaline liquid red sludge; it is non-caustic material of a solid consistency. This is the best available technology (BAT). However, it produced a new problem: too much red dust in the air. The solution is covering the reservoir", loc*. cit*., p. 152.

Figure 4 The Red Sludge

Source: Danube Watch 3/2010.

4.2 Lack of Enforcement of Environmental Laws

The Chairman of the Sustainable Development Committee of the Hungarian Parliament introduced the Report on Causes and Lessons from the Red Mud Disaster prepared by Jávor and Hargitai stating:

"... [I]t is especially depressing to face the events when one realizes that the disaster could have been avoided. What we're dealing with is not a natural disaster, an earthquake, an inundation or a raging storm which cannot directly be prevented or avoided (...). The Kolontár disaster, on the other hand, can be directly linked to human negligence, to ignoring sings, severe omissions and issues of liability. It wouldn't have happened if ... if the company had switched to the dry disposal technology previously, just as it had done in the case of the Mosonmagyaróvár plant. If anyone, whether on the part of the corporation or of the competent authorities had taken the trouble to monitor the structural engineering condition of the dam and its dislocation, now proven to have been happening for years. Or if the authorities had not given permission, in 2006, for depositing ordinary waste which in fact had a pH value of 13. In the competences regarding construction authorization and inspection had been clarified. One could go on and on. The fact however is that none of these measures were taken....".[59]

From the enforcement point of view, the accident showed "a lack of regulatory precision, since the local agency did not have the competence to act because the division of powers was not clear. Therefore the Hungarian Parliament modified the law and from December 2010 they have been able to issue operating licenses for operation of reservoirs similar to those of the complex of MAL in Ajka. This should ensure authority, supervision and inspection".[60] However, the subsequence practice needs to prove that the legal changes are in fact enforced in the right direction.

The government's policies have been criticised because they were focused on ensuring the Companies' growth to the detriment of the protection of the population and the environment.[61]

---

[59] Jávor, B. and Hargitai, M., Eds.,(2011) The Kolontár Report. Causes and Lessons from the Red Mud Disaster, available at http://lehetmas.hu/wp-content/uploads/2011/05/Kolontar-report.pdf , p. 10.

[60] Ibidem.

[61] See Tóth, J.I. (2013), *loc. cit.*, p. 153.

Deciding on whether the public bodies, those official monitoring agencies, whose task is to oversee the running of industry, fulfilled or failed in their duties.

The enforcement of several directives raised many questions after the Kolontár disaster, in particular the Directive on Mining Waste. Even though the red sludge from alumina production was not specifically listed in the appendix of the ELD, it is certainly included under the terms of the IPPC, the Directive under which the company received its most recent permit to operate in 2006. To satisfy MAL's interests, the Socialist Government approved a legal modification to give the Operator the competence to classify the type of waste. Legal scholars considered that the local agencies were "too lenient towards MAL. The environment protection central government agency abolished the hazardous classification of the MAL's red mud waste storage on 4 December 2003. This caused the inspection powers of local environmental authorities to be significantly reduced".[62]

In September 2011, the Hungarian Parliament adopted a new Management Act that envisaged the supervision of materials covered by the Disaster Management Act. It introduced fines for less serious offences extending the competence of agencies to deal with such plants. This law compelled industrial plants to have insurance in the case that their operations released hazardous material into the environment. The fines go to a fund for the insurance companies from which they can pay the reinstatement costs of an eventual disaster. The insurance extends to damage caused to the environment and individuals. The state acknowledged the failure of the monitoring agencies in December 2011, when Parliament passed a new law giving the national mining authority the final say in whether an industrial site is given permission to operate or not. One of the problems at Ajka was that any number of individual authorities –engineering, environmental, health and safety, water management, mining – all had the power to rule on their specific fields, but the final approval was left to a town clerk in Devecser council, without the necessary knowledge, tools or information to make that decision. Just 9 days before the disaster, with the environmental documents provided by the company the clerk declared the reservoir 'safe'.

As in the case of Aznalcollar, the weakness in supervision has been used as a mitigating circumstance to exclude the Company's liability. "It has been one of the many planks in an argument presented by MAL Zrt, that it fulfilled all the regulatory stipulations, and therefore cannot be held responsible for an accident, which company lawyers argue, must have been caused by a sudden and unpredictable movement of the earth below the wall of the reservoir, which caused it to collapse – effectively, an act of God".[63] On the contrary, the Government considered that "the disaster was not a natural phenomenon, not a natural disaster, but an industrial catastrophe. And in that case, not UFOs are responsible, but definitely the company which is responsible for the technology, responsible for the waste, for the disposal of the waste, and the running of the whole operation".[64]

Scholars have characterised the complicity between state bodies and agencies and companies considering that "agencies often seek to relieve the companies from responsibility and obligation. One practical consequence of this practice is that big companies try to pass on the damage they have caused to other actors ('private profit and social cost')" and among other reasons due to political influence, irregular funding and corruption[65].

---

[62] See Tóth (2013), *loc. cit.,* p. 151 and Jávor and Hargitai (2011), *loc. cit.*, p.105.

[63] Statement of State Secretary for the Environment Zoltán Illés, in Thorpe, N. (2011), "On Mud and Miracles – The First Anniversary of the Red Sludge Disaster", *Hungarian Review*, issue 05/2011, p. 9, available at www.ceeol.com

[64] Ibidem.

[65] Tóth (2013) points out that "The practical relationship of the three main players was that the Hungarian government agency being unjust and unfair prefers MAL's interest to that of the local residents (potential victims). The government agency has many reasons to *be lenient towards large companies*:

4.3 Liability under Civil Law

As in other mining accidents, -Aznalcollar, Baia Mare, Baia Borsa-, the Company tried to deny or minimize its responsibility. They denied that they caused the accident and the pollution. They also tried to reduce the amount of damages to pay. "MAL claimed that the company's pollution did not occur due to their fault, but the accident was caused by unforeseen consequences of natural processes and due to faulty government decisions made in the past (i.e. the negative effects on soil stability of the western clay wall ordered to be built earlier, during the communist regime)".[66] In its statement, MAL also declares that:

> "Owners maintain their previous point that not their manner / fault caused the disaster, but other reasons (e.g. planning and building deficiency of the red mud reservoir during the management of the predecessor state-owned enterprise; the negative effects on soil stability of the Western clay-wall ordered to build before the regime-change, which has not been investigated at that time; dams of the cassette No. X have been dimensioned for dam rupture, but not for soil rupture; extreme weather conditions etc.)Their point of view is also reinforced by all the required permissions received from the competent state authority for environmental protection, and that the operational directives have been observed".

Most victims were poor farmers living near the waste lagoons, trusting that the company and the authorities would ensure environmental safety. They wanted rapid compensation from the polluter or the Government. The Government's negotiations with the victims over compensation were not easy. The Government rehoused everyone, some families accepted new homes, other bought homes locally and about thirty moved away from the area.[67] The Government advanced the compensation and adopted legal measures to facilitate the situation of families with mortgages.

Civil law suits were brought at the Budapest Metropolitan Court both by the state and individuals claiming compensation for the material[68] and non-material damage they suffered.

---

1. A big company is a major tax payer and also a large employer. These matters earn high respect for the company. It is therefore understandable that the agency also favours the company; as the popular slogan from the early 1950s had it, 'What 's good for General Motors is good for the USA'. Similarly, certain banks and companies are 'too big to fail' (i.e. so large that their failure will be disastrous to the economy, and which therefore must be supported by government when they face difficulty).
2. Additionally, the companies can *support the political parties* and in return these parties will return favours later. Therefore the large companies could expect favourable treatment from authorities in general (political corruption).
3. Furthermore, several multinational companies are often more significant economically that the government wanting to control them, and in these cases it is particularly difficult for the agency to have control over the companies", *loc. cit*., p. 152.

[66] Tóth, J.I. (2013), *loc. cit.,* p. 150.

[67] See Thorpe, N. (2011), "On Mud and Miracles – The First Anniversary of the Red Sludge Disaster", *Hungarian Review*, issue 05/2011, p. 5, available at www.ceeol.

[68] According to Tamás Velkei (2013), "The flood of red-mud destroyed property and movables of over 450 persons, major segments of natural and built environment and public works. The numbers of houses rendered uninhabitable were 36 at Kolontar, 282 at Devecser and two at Somlovasarhely. Of them, 304 had to be razed and the related damage runs to HUF 3.8 billion. As for damage to movables, it runs to a total of HUF 466 million affecting residents of Kolontar, Devecser, Tuskevar, Somlovasarhely, Somlojeno and Apacatorna. Local private companies suffered damage to the tune of HUF 702.5 million. State-owned companies also suffered damage: MAV State Railways: HUF 282.5 million, Hungarian Posts: HUF 78 million, Magyar Közút Nonprofit Zrt (in charge of Public Roads): HUF 30 million, Bakonkarszt: HUF 60 million and E.ON: HUF 40 million", see Tamás Velkei (2013), "Ajka alumina plant accident‐three years on the courts are still out", Magyar Nemzet, 5 October 2013, available at http://mno.hu/

According to the State Secretary for the Environment, Zoltán Illés "the clean-up already cost around 35 billion forints (100 million euros, 150 million dollars), and it is still far from over. That money has been paid from a so- called open-topped state fund, but the government clearly wants, and local people expect the company to pay back at least some of that money. Asked whether an out-of-court settlement might be reached between the government and MAL, the state secretary replied that this 'might easily' be the solution".[69]

As explained by Thorp, "The government is clearly having to walk a tightrope between ensuring that any punishment the company receives does not bankrupt it completely –with the loss of the six to eight thousand jobs which depend on it locally – satisfying the victims' desire to see justice done, and recouping the money it has spent. On the other hand, MAL is part of a business empire belonging to some of the richest men in Hungary. The civil action launched by the state deliberately targets individual owners of MAL, rather than the company as a whole. Well-placed sources suggest an agreement may be reached with the company before the first anniversary of the disaster in October.....".[70]

Non-material Damage

Some of the victims presented claims that have led to precedent-creating decisions and opened a new legal path in Hungary for compensation.[71] The case of Joseph Kokonli was brought before the Budapest Metropolitan Court which held that MAL is obliged to pay damages for the damage caused by the rupture of the tailings dam.[72] The Budapest Metropolitan Court, acting as a court of first instance, found that when on 4 October 2010, caustic red mud broke a wall of a tailings pond at a plant of MAL Zrt. and flooded the neighbouring area, the plaintiffs' right to human dignity and healthy environment was violated. Judge Mrs Judit Piltz Salomon explained that it had been proved that the disaster originated from the way MAL managed a hazardous operation. That is why the court confirmed the plaintiffs' claims for damages for non-material damage and ordered MAL to pay to plaintiff no. 1 HUF 9 million, plaintiff no. 2 HUF 12 million,

---

[69] THORPE, p. 9.

[70] Ibidem, p. 10.

[71] As reported, "A number of lawsuits were filed after the 2010 sludge disaster, one group of which involved residents of Devecser and Kolontár, another flooded village. To date about 80 plaintiffs have filed suit against MAL to the tune of about HUF 1 billion forints (about USD 4.5 million). The suits are being heard by primary courts in Budapest, Ajka and Veszprém, the latter two cities being nearest to the disaster site. Konkoly's case was the first to be heard because he, a retired soldier living in Devecser, was the first to sue. He demanded HUF 23 million (USD 101,000) from MAL in material damages for the house and personal property destroyed by the spill and in non-material damages for the suffering he went through because of the loss. One legally binding decision was reached earlier in this case, when on October 20, 2010 MAL was required to pay HUF 10 million in immediate relief, independently of the outcome of the lawsuit. Eventually, Konkoly did receive that sum", see Cseri, P. and Hajba, F. "Red sludge disaster – alumina firm ordered to pay damages", Népszabadság, 23 February 2013, available at http://www.budapesttelegraph.com/news/264/red_sludge_disaster_%E2%80%93_alumina_firm_ordered_to_pay_damages

[72] See Tamás Velkei (2013), Damages awarded to red mud spill victims, Magyar Nemzet, 6 November 2013, available at http://mno.hu/ This press article gathers the comments of the parties: "György Magyar, attorney-at-law for the plaintiffs said the court had done a "heroic job" and "did the right thing" when it handed down that judgment. An earlier interlocutory judgment of a court had already established MAL's liability, so "the real question now was whether the damages awarded would be close to the plaintiffs' claims. They were close enough, so we won't appeal this judgment," Magyar added that because MAL is under liquidation, it is feared that the receiver will assign the claims of the accident victims to the "end of the line." "The authorities should consider," he said, "paying the damages to the victims right away."

plaintiff no. 3 HUF 5 million and plaintiffs nos. 4 and 5 HUF 3 million each, plus the interests on said sums calculated from October 2010, and the court costs.[73]

As Cseri and Hajba (2013) explain "MAL could only have been exempted from responsibility for damages had it been proven that the disaster was caused by external factors that it could not have prevented. The court, however, unequivocally found that the disaster had not been the outcome of external factors that could not be prevented but of shortcomings in design, construction, operation and monitoring, for which MAL was responsible. In addition, the red mud in the storage reservoirs had qualified as hazardous materials and the overall operation was deemed hazardous since the company was conducting activity that put stress on and jeopardized the environment. Reservoir No. 10 contained a large amount of hazardous caustic material, the court found. Under these circumstances even a minor error or omission is grounds for responsibility for damages, the court ruling stated".[74]

MAL appealed the verdict and in February 2013, the Regional Court of Budapest (*Fővárosi Ítélőtábla*) acting as Hungarian Supreme Court passed judgment confirming the interlocutory judgment of the Budapest Metropolitan Court, and stipulated "József Konkoly is entitled to claim damages from MAL."[75] The Supreme Court concluded that the cause of the accident was, firstly, structural faults in the tailings pond and, secondly, omissions in the way MAL's maintenance crew worked.

Regarding the structural faults in the tailings pond, the Budapest Metropolitan Court had stated that the reservoir was poorly designed and the subsoil was labile. And, regarding the omissions of monitoring by MAL, "the decision unequivocally stated that red sludge was a hazardous material even if it had not been classified as hazardous waste and that the owner of the reservoir was responsible for the condition of the structure. If the owner had systematically monitored it, it would have noticed the signs of impending disaster. At the same time, work with a material of this nature qualifies as a hazardous activity, the court said, finding no evidence that the spill had been unavoidable".[76]

4.4 Liability under Administrative Law

The company also faced a heavy fine for infringement of waste management regulations of around 470 million euros (HUF135.14 billion). This fine imposed by the inspectorate[77] is much higher than the damage (118 million of euros), and more than the value of the company (10 million euros). MAL appealed the penalty legally, so the quantity and the payment date will be established by the courts at some time in the future.[78]

---

[73] Ibidem.

[74] See Cseri, P. and Hajba, F. (2013), *loc. cit*.

[75] See Press Note, *Ajka alumina accident – Curia passes first verdict*, *Népszabadság,* available at http://www.budapesttelegraph.com/news/659/ajka_alumina_accident_%E2%80%93_curia_passes_first_verdict

[76] See Szabó, G. (2012), "The problem goes way, way back – Court reaches decision in red sludge civil suit", HVG, 3 November 2012, available at http://www.budapesttelegraph.com/news/61/the_problem_goes_way__way_back_%E2%80%93_court_reaches_decision_in_red_sludge_civil_suit

[77] See Gadjics, A. (2011), "The Kolontar Red Mud Case. Environmental Liability 2011", Justice and Environment, p. 16, available at www.justiceandenvironment.org

[78] See Tóth, J.I. (2013), p. 152.

On 27 February 2013, one of the Hungarian Courts ordered that the company be liquidated. A former Hungarian Law provides that MAL should be taken into state ownership. A new state company has been created, which has taken over the factory together with the assets and workers.[79]

4.5 Liability under Criminal Law

After the accident, the executive director of the company was arrested and the National Bureau of Investigation launched an enquiry into suspected professional misconduct leading to mass fatalities and harming the environment. Since the accident was not caused by natural causes but was an industrial accident, investigation concentrated on human responsibility and the responsibility of the company operating the tailings pond. The investigation also sought to establish whether technical inspection of the reservoir by the relevant authorities was in compliance with regulations.[80]

The investigation finished in November 2011, and fourteen employees of the company were charged with:

- causing public danger (qualified as a crime committed with negligence and causing death and particularly considerable pecuniary injury)[81],
- damaging nature and
- infringement of waste management regulation (qualified both as crimes committed with negligence).

A criminal lawsuit was brought to the Court of Veszprém and has proceeded with much delay because of the high number of witnesses,[82] problems with their testimonies and the need to hear experts. [83]

---

[79] See Tóth, J.I. (2013),"Key Actors", p. 154.

[80] See Gadjics, A. (2011), loc. cit., p. 17.

[81] Section 259 of Criminal Code establishes:

"(1) The person who creates public danger by causing flood, by inducing the destructive effect of an explosive, radiating or other substance, energy or fire, or impedes the prevention of public danger or the mitigation of its consequences, commits a felony, and shall be punishable with imprisonment from two years to eight years.

(2) The punishment shall be imprisonment from five years to ten years, if the crime is committed a) as part of a criminal conspiracy, b) causes particularly considerable or greater pecuniary injury.

(3) The punishment shall be imprisonment between five to twenty years or life imprisonment if the causing of public danger results in the death of one or more persons. (4) A person who causes public danger by negligence, shall be punishable for a misdemeanor offense by imprisonment of up to three years, or, if such offense causes particularly considerable or greater pecuniary injury, up to five years, or, if such offense results in the death of one or more persons, between two to eight years.

(5) The person who commits preparation for causing public danger, shall be punishable for a felony with imprisonment of up to three years. (6) The punishment of the person who voluntarily terminates the public danger before any damaging consequence has arisen therefrom, may be mitigated without limitation."

[82] See Hungarian News Agency, "Witness testimonies are contradictory in criminal trial of Ajka alumina plant accident", 29 May 2013. This press note reports that "Thanks to confrontation certain facts have been clarified concerning times and sightings. Five witnesses were heard, including two plumbers of Bakonykarszt private limited company, who had been replacing old water meters with new ones in Malom

The prosecution service revealed that numerous rules were violated. MAL's rules of operation did not contemplate the possibilities that the wall of the tailings pond could break through human negligence, they merely covered a terrorist attack or an earthquake. The rules did not provide for detailed measures to avoid death and injury in case of a disaster. The prosecution alleged that the executive director of the company, Zoltán Bakonyi and others were responsible for those infringements. Among the facts that have been established[84], it has been proved that "on the day of the disaster there was an excess of some 550 000 cubic meters of water in reservoir no. 10 because the company all but stopped neutralizing reservoir water and releasing purified water to the Torna Stream in the third quarter of 2009. Right before the disaster the water level in the reservoirs was at a record high".[85]

The prosecution also established "that in reservoir no. 10 pH was too high (12.3 pH), which the company should have reported to the competent environmental authority. That the liquid there was excessively alkaline was among the factors that softened lower layers of clay earth beneath the northeastern corner of the reservoir, which in turn caused rupture of the soil and the fatal rupture of the wall. The water ditch around the reservoir was not voluminous enough because three months before the disaster it had partially been filled through neglect when maintenance was done on the northern wall. Because the soil beneath the northern dam of reservoir 10 got soaked, its stability was compromised".[86] By law MAL should have inspected the quality of the material of the walls of reservoir no. 10 every year but it did not. There are several checks that the company failed to do concerning the stability of the dams.

4.6 Political Accountability and Responsibilities

On 12 October 2010, the Hungarian Parliament set up an ad hoc parliamentary committee of inquiry to establish the liability of the different actors involved in the accident. The Report adopted by this committee in 2011 determined that the directors of MAL as well as the regional protection authorities were responsible for the disaster. [87]The new Government then adopted very strict measures against individuals in the Company, and two years later promoted the nationalisation of it once a Court has adopted its liquidation.

Street of Kolontár that day. The first eyewitness said they had been about to leave for a lunch break when they saw from the highway that red sludge spilled over the wall of reservoir No. 10. They turned back from the road (which leads to Ajka) and drove to the pump house because by then arable land close to them went red. The first eyewitness recalled that they had given a lift to pump operator Sándor P. (who is the 11th among the defendants of the trial) and took him to reservoir No. 10/A. At that time it did not occur to them that there would be such a disaster as was caused by the bursting of the wall of the reservoir.

[83] Tamás Velkei (2013), "Ajka alumina plant accident –three years on the courts are still out", *Magyar Nemzet*, 5 October 2013.

[84] See Tamás Velkei (2013), "Ajka alumina plant accident –three years on the courts are still out", *Magyar Nemzet*, 5 October 2013. He reports that "the day of the disaster pump operator Sandor P., defendant no. 11, noticed the rupture of the wall of the reservoir and informed Ferenc P., defendant no. 6. But Ferenc P. failed to look for the cause of the problem and did not attempt to reduce the volume of water leaving the reservoir and neither did he notify his superiors. Dispatcher Kálmán Tibor Sz., defendant no. 4, and foreman Antal B., defendant no. 15, failed to check the readouts of process control monitors".

[85] Tamás Velkei (2013), "Ajka alumina plant accident –three years on the courts are still out", *Magyar Nemzet*, 5 October 2013.

[86] Ibidem.

[87] We have had just indirect access to this report.

4.7 The Hungarian Transposition and Implementation of the Environmental Liability Directive

Even though Hungary was considered as one of the frontrunners of the transposition of the ELD, its implementation was quite deficient as examined in the study "The Kolontar Red Mud Case. Environmental Liability 2011" by Gadjics that considers that:

> *"Although the obligation of ELD's transposition was more or less fulfilled by the legislator, there have been problems in applying the regulation because clear competences in monitoring and licensing are lacking and the system of financial guarantees for environmental damages was not efficiently set up and applied. (…)*
> *The Environment Protection Act and several government decrees aim to comply with the Directive regarding the prevention and exposure of the threat of damage and damage control. However, actual financial liability for the damage has not been properly implemented in the required scope. It seems to be a serious deficiency of the Hungarian legislation that it lacks the framework regulation demanding a prerequisite for granting permission to and for operating all activities with a threat of environmental damage to have cost assessments made with the participation of a independent experts, based on which the authority would be under obligation to demand proof of the appropriate financial guarantee from the parties engaged in activities of environmental use.*
> *A simple and easily enforceable scheme would only cover activities regulated under the IPPC regime with operators being able to choose from all types of financial security instruments, such as insurance, bonds, and guarantees.*
> *Efficient compulsory financial security would mean that users of environment facing potential environmental liability under the ELD must provide evidence to a competent authority demonstrating that costs arising from the potential liability will be covered; this legal instrument would ensure the implementation of the polluter-pays principle".*[88]

Given the problems of the Hungarian Government to obtain from MAL the cost of restoration of the environment and compensation of victims, in 2011, the Hungarian Government presented a proposal for the establishment of a European Industrial Disaster Risk-Sharing Facility. This Industrial Disaster Risk Sharing Facility should be financed by a compulsory environment insurance premium harmonised at EU level. The proposed insurance should work as a European insurance pool designed to complement the private insurance products with an activation trigger.

The operating principles of the Facility would be the following:

- the Facility would be based on a mandatory environmental insurance premium payable by the targeted industries and companies. The premium would be indexed to the annual net corporate income;
- the Facility would provide immediate and effective financial help to Member States in case of industrial disasters in order to facilitate the rapid disaster response, i.e. remediation of environmental damages, remediation of damages caused to human health and to private and public property. The intervention of the Facility would be linked to a certain trigger, e.g. EUR 100 million of expected damage;
- once the responsibility of the operator is established in court the Facility might recover the expenditure thus incurred, but only below the threshold mentioned above., that is, the company's financial exposure to industrial disaster would be limited;

[88] Gadjics, G (2011), "The Kolontar Red Mud Case. Environmental Liability 2011", Justice and Environment, available at www.justiceandenvironment.org, p. 4.

- the Facility would also operate as a fund disbursing financial support for safety and environmental protection measures from the residual amount of the Facility at disposal at the end of each calendar year, following the disbursement of disaster relief loans and grants".[89]

5 Lessons Learned

5.1 Management of waste from extractive industries

After the accident of Aznalcollar and later on the one of Baia Mare (Rumania 2000), the European Union adopted Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries. This Directive is meant "to prevent accidents resulting directly from the prospecting, extraction, treatment, storage, recovery and disposal of mining waste and to limit their harmful effects on the environment and human health".[90]

The main elements of this Directive were underlined:

- Conditions for operating permits.
- General obligations concerning waste management.
- Obligation to characterise waste before disposing of it or treating it.
- Measures to ensure the safety of waste management facilities.
- Requirement to draw up closure plans.
- Obligation to provide for an appropriate level of financial security.

The European Commission expressly referred to Aznalcollar and Baia Mare when justifying Art. 16 of this Directive:

> "Article 16 lays down one of the key measures of the Proposal, namely the obligation for the competent authority to inspect any waste management facilities. The experience gained in recent years with the serious accidents of Aznalcóllar and Baia Mare has prompted the Commission to indicate that a strong enforcement regime is necessary if serious negative consequences on the environment are to be avoided"[91].

However, after the adoption of the proposal, two loopholes can be identified that were important in the Kolontar accident 2010: the distinction between hazardous and non-hazardous waste and the legal situation of abandoned sites and reservoirs.

1. *The distinction between hazardous and non-hazardous waste:*
   When the common position on the proposal between the European Parliament and the Council of the European Union was adopted, the Commissioner for the Environment Dimas expressed his support for many elements in the common position, but preferred the Commission's original text regarding the financial guarantee obligation because it did not allow for any exemptions - whilst the common position introduced the possibility for Member States to exempt non-hazardous non-

[89] Hungarian Government (2011), Non-Paper by Hungary, Further Steps to Establish a Common European Industrial Disaster Risk Sharing Facility, p. 2.

[90] See the Press Release 2651st Council meeting Economic and Financial Affairs, Luxembourg, 12 April 2005, where the Council adopted a common position on a ddam Directive of the European Parliament and of the Council on the management of waste from extractive industries and amending Directive 2004/35/EC (16075/04). Hungary and Austria abstained, p. 20.

[91] Proposal for a Directive of the European Parliament and of the Council on the management of waste from the extractive industries, Doc. 10143/03, 5.06.2003, p.21.

inert waste. The Commissioner nevertheless expressed the Commission's support for the common position for two reasons. Firstly, the common position does not grant a blanket exemption but provides for the Member States' competent authorities to decide on a case by case basis. Secondly, the common position does not grant exemptions from such core environmental safeguards as closure and monitoring of waste facilities,"[92]

2. *The legal situation of abandoned sites and reservoirs*

When the Directive was adopted, Portugal made a statement pointing out the problem of abandoned sites and reservoirs and its fear about the possibility of the Directive to be applied retroactively:

"Taking account of its strong, centuries-old mining tradition, Portugal cannot fail to be very concerned about the possible retroactive effect of implementation of the future Directive on the management of waste from extractive industries, which will necessitate considerable expenditure on long-abandoned workings.

That being the case, Portugal will need considerable Community financial support to cover the cost of the inventory of closed and abandoned waste facilities and the programme of measures for reclaiming such facilities".[93]

Some Groups of the European Parliament also stated when adopting the common position of the Proposal Directive that "The Directive should provide new Member States with the means to deal with past mining waste".[94] In 2011, the Slovak Republic, considering the number of existing contaminated sites, proposed helping the countries of the former socialist bloc, which joined the EU, in the implementation of the "polluter pays" principle and to create a financial instrument for the elimination of contaminated sites from the past.[95] No action was taken on this proposal as mentioned below. Hungary abstained in all these vote processes.

5.2 Amendment of the Seveso Directive

The Seveso Directive was modified after the accidents of Aznalcollar and Baia Mare Originally its Article 4 (e) excluded the activities of the extractive industries concerned with exploration for, and the exploitation of, minerals in mines and quarries or by means of boreholes from its scope and moreover, and its Article 4 (f) excluded waste land-fill sites.[96] The European Commission amended the Seveso II Directive "to unequivocally include mineral processing of ores and, in particular, tailings ponds or dams used in connection with such mineral processing of ores. Industrial operators performing these activities will thus be obliged to put into effect Safety Management Systems, including a detailed risk assessment on the basis of possible accident scenarios. However, it is important to note that any mining activity would only be covered by the Directive if dangerous substances as defined in the Directive are involved and if they are

[92] See Commissioner Dimas' opinion in Proposal for a Directive of the European Parliament and of the Council on the management of waste from extractive industries and amending Directive 2004/35/EC – Outcome of the European Parliament's second reading (Strasbourg, 5 to 8 September 2005), Doc. 11947/05, 13.09.2005, p. 2.

[93] See the Addendum to the "i/a" item note, Adoption of a Directive of the European Parliament and of the Council on the management of waste from extractive industries - Statements, Doc. 5111/06, ADD 1 REV 1.

[94] Proposal for a Directive of the European Parliament and of the Council on the management of waste from extractive industries and amending Directive 2004/35/EC – Outcome of the European Parliament's second reading (Strasbourg, 5 to 8 September 2005), Doc. 11947/05, 13.09.2005, p. 3.

[95] See Slovak Government (2011),"Environmental burdens and the need to provide their funding - Note from the Slovak delegation", Doc. 15168/11, 6.10.2011, p.4.

[96] When the Proposal for the Seveso II Directive4 was presented to Council and European Parliament, the Explanatory Memorandum justified maintaining the above exclusions by saying that "although these areas present a major accident potential, they do not fall easily within the framework of the proposal given special needs or special hazards."

present in quantities beyond the threshold levels set out in the Directive"[97]. However, the outcomes envisaged by this amendment depend greatly on the adequate transposition and enforcement by Member States. In the case of Hungary, the Kolontar case shows how the irregular behaviour of Hungarian authorities allowed the operator to classify the nature of waste instead of the inspectorate. The operator classified as non-hazardous waste that was hazardous and highly toxic. The inspectorate did not even acknowledge it, even though its inspectors visited the facilities two weeks before the accident.

5.3 The Environmental Liability Directive

Aznalcollar and Baia Mare are two of the accidents that triggered the adoption of the Environmental Liability Directive in 2004[98]. However, the Kolontar case showed some of the loopholes of this Directive concerning industrial and catastrophic damage that were acknowledged by the EU Environmental Commissioner's Spokesman after the accident.[99]

The transposition of the EU legislation on environmental liability should have prepared the administration to take a more relevant part in the process of assessing risks and damage. However, in the case of Spain, the latest reforms that have taken place have conferred the competence in most cases on the operators of the activities.[100]

In the case of Hungary, the Government pointed out the loopholes of the ELD "The accident has eloquently exposed the fact that existing EU legislation failed to properly address the financial implications of such events:

- the Environmental Liability Directive (2004/35/EC) does not foresee a mandatory financial guarantee system as yet, while the developments in the insurance market for industrial disasters have remained limited thus far;
- the Seveso II Directive (96/82/EC), the EU's framework legislation on industrial safety, does not address the issue;
- the Mining Waste Directive (2006/21/EC) provides for the establishment of a limited financial guarantee;
- the EU's Solidarity Fund does not cover industrial accidents".[101]

---

[97] See Proposal for a Directive of the European Parliament and of the Council amending Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances, COM(2001) 624 final, 10.12.2001, p. 5.

[98] See Proposal for a Directive of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage, COM (2002) 17 final, 23.1.2002, p. 3.

[99] Thorpe, N. (2010), "Notes from the red planet. Hungary's Worst ever Chemical Disaster", *Hungarian Review*, issue 01/2010, p. 35, available at www.ceeol.com

[100] See the Spanish Report of WP2. After the adoption in June 2014 of the reform of the Law on the administrative responsibility for environmental damage, 95% of operators in Spain will assess the risk and according to their assessment establish the financial guarantees.

[101] The EU Commission refused to fund the damage under the cover of the Solidarity Fund. See the Report from the Commission on the European Union Solidarity Fund - Annual Report 2011, COM(2012) 523 final, where it says "The Hungarian authorities decided to submit an application for Solidarity Fund assistance which was received by the Commission on 13 December 2010.The total direct damage caused by the disaster was estimated at EUR 174,32 million. The normal threshold for mobilising the Solidarity Fund for Hungary in 2010 was EUR 590, 71 million (i.e. 0, 6% of Hungary's GNP of 2008). As the direct damage of the disaster was considerably lower than the normal threshold, Hungary submitted the application under the "extraordinary regional disaster" criteria.

The total direct damage caused by the disaster was estimated at EUR 174,32 million. The normal threshold for mobilising the Solidarity Fund for Hungary in 2010 was EUR 590, 71 million (i.e. 0, 6% of Hungary's GNP of 2008). As the direct damage of the disaster was considerably lower than the normal threshold, Hungary submitted the application under the "extraordinary regional disaster" criteria The Regulation

However, as examined above, the main problem in Hungary was a deficient implementation of the ELD.

6 Policy Implications and Conclusions

This case study may help to characterise the main features of environmental crimes in the field of mining activities where:

- Environmental crime depends not just on the causation of damage; it also requires the infringement of an administrative rule. There is no infringement when the activity producing an environmental disaster or an accident has been authorised by the legislator or/and the administration.
- Failure of the Administration to update the requirements of the licence taking into account the standards of protection, as well as to monitor the activities carried out under these licences.

In all European countries, but especially in the case of Central and Eastern European countries and in the Balkans there are hotspots created by mining activities that represent a high risk for both the environment and human health. As Tobă (2011) says "Europe and, particularly, ex-communist countries are confronted with the issue of the preserved, abandoned or still operational decantation ponds". Potential pollution management is one of the greatest challenges for the environmental security in the territory of several European countries."[102] Thus, it is necessary:

- To clarify the legal status of abandoned sites and tailing ponds considering the risk they create for human health and the environment.[103]

---

states in Article 2 (1) that it applies mainly to major natural disasters and, therefore, does not exclude technological disasters from its field of application at the outset These could, however, only be considered eligible if further conditions are met. Article 3(3) of Council Regulation (EC) No 2012/2002 in principle limits payments from the Fund to financing measures alleviating non-insurable damages. The damages caused by the red sludge spill were however caused by the defect of an industrial installation. Independent of the question of any individual responsibility, the owners and/or operators of the aluminium plant should have insured themselves against risks emanating from running the installation (absolute liability). The damage caused by the red sludge spill must therefore be considered insurable. Moreover, the application did not explore the question of liability. Article 8(1) of Council Regulation (EC) No 2012/2002 however obliges beneficiary States to seek all possible compensation from third parties. Article 3(3) of Council Regulation (EC) No 2012/2002 stipulates that payments from the Fund relating to the cost of damage subsequently met by a third party shall be recovered. Under the "polluter pays principle", the owner and/or operator of an industrial complex should be held liable for any damage emanating from that installation independent of any possible personal responsibilities or insurance coverage. The Solidarity Fund must therefore not be used for such damage. For the reasons set out above, the Hungarian red sludge disaster could not be considered as meeting the criteria of Council Regulation (EC) No 2012/2002 for mobilising the Solidarity Fund", p. 6-7.

[102] See Tobă, F. (2011), "Bilateral Cooperation between Romania and Hungary in Case of Accidental Pollution. Two Study Cases", Strategic Impact, Issue 2/2011, p. 60.

[103] Tobă underlines that "One of the issues of utmost importance concerns the abandoned mining locations and ponds with a high impact on public and environment security. A list including a number of 23 dangerous mining and ore processing locations was drawn up in September 2000 and the Romanian, Hungarian and Slovakian governments assumed the responsibility to monitor them and to take all the actions regarding the necessary corrections. This list does not include the abandoned locations. These represent a high potential risk of discharging the toxic substances and heavy metals in the natural environment. The abandoned mining locations are a pan-European problem that requires a continental

- Despite its share of responsibility, the Hungarian Government has been praised for the way it exercised "its own responsibility to intervene in such circumstances in the public interest".[104]
- This case shows that acts of God is a recurrent argument of companies defence, but in this case the main cause of the disaster as alleged by the operator was not the weather or an act of God but a defect in the structure of the dam and the negligence of both operator and authorities.

In 2011, the Slovak Government presented a proposal on Environmental Burdens that envisaged several measures to restore abandoned polluted sites and to provide funds for catastrophic damage. It was the result of considering the risks derived from polluted abandoned sites. The Council of Ministers in its meeting of 10 October 2011 just took notice of this measure.[105] The situation of danger has not changed. These problems are also present in the candidates and potential candidates for accession and constitute one of the main challenges for authorities since some of them are meant to take some of the same steps that were taken in the case of the Eastern European countries: privatisation of old mines with serious problems of uncontrolled hazardous waste, abandoned sites and reservoirs and illegal landfills (See Minor case study on Kosovo).

The following policy implications can be proposed:

- Adequate enforcement by Administrative authorities is a prerequisite for environmental protection. Without the acknowledgement of administrative infringements, environmental protection through criminal law will be impossible and so will the liability of operators and civil servants.
- The lack of enforcement procedures or their malfunction encourages harmful environmental conduct and in some cases is at the root of environmental crime, involving criminal liability of civil servants. The mining accidents that have been examined in these reports have some aspects in common and share some legal challenges for the enforcement of environmental law and environmental criminal law. Thus both raise countless questions on the shortcomings and loopholes of the existing legislation at the moment of the catastrophe regarding: Licences and authorisation procedures, mechanisms to monitor and to update environmental standards and requirements according to scientific knowledge, remedial measures, financial guarantees and legal liability, both criminal and civil.[106]

---

approach. (...) One of the biggest problems refers to the mining locations that ceased their activity but were closed down inadequately. A classification of these mining locations includes the locations without an owner, those whose owner cannot be identified or those whose owner cannot be identified or those whose owner is insolvent and is unable to finance the clse down. Identification of the financing solutions and the development of an adequate legal framework are necessary in these cases", Tobă, *loc. cit.*, p. 63-64

[104] See Declarations of György Bakondy, Hungary's disaster management chief, in THORPE, N. (2011), "On Mud and Miracles – The First Anniversary of the Red Sludge Disaster", *Hungarian Review*, issue 05/2011, p. 6, available at www.ceeol.com

[105] "The Council took note of information from the Slovak delegation inviting the Council to create a EU tool for financing remediation measures for environmental damage from contaminated sites, in cases where the polluter is unknown or does not exist and the "polluter pays" principle cannot be applied, as well as a special EU fund for immediate support in case of ecological disasters directly related to contaminated sites", Press Release 3118th Council Meeting Environment Luxembourg, Doc. 15321/11, 10 October 2011, p. 15.

[106] Big companies can pay to delay legal proceedings and, sometimes when there are no injunctions available to prevent damage in advance, they seek to consolidate the criminal acts (e.g. open cast mining in a natural park).

For these reasons the adoption of compulsory legislation on monitoring and inspectorate services at the European level is of the utmost importance to improve enforcement and increase efficiency of the Administration and effectiveness of environmental law. The European Commission consultation on the revision of the EU legal framework on environmental inspections should consider the upgrading of the status of Recommendation 2001/331/EC providing for minimum criteria for environmental inspections in Member States. However this consultation has not targeted specifically inspections of mining activities or considered them.[107] The adoption of new and compulsory inspectorate rules should also consider the need to introduce obligations such as updating licence conditions and monitoring and reinforcing inspectorate systems.

- Criminal liability of authorities as well as public legal entities must be included in the Member States' legal systems in order to provide the required tools to combat environmental crime, in particular, in those cases where the *mens rea* of civil servants and their behaviour can be classified as a crime of corruption.
- A better dialogue between the different EU legal instruments and their enforcement is necessary. A better synchronicity between the different EU environmental directives, in particular, the Environmental Liability Directive and the Environmental Crime Directive is required.
- In the case of hazardous activities, an ELD Fund should be established in order to cover damage unable to be compensated by operator's resources and insurances as proposed by the Hungarian Government. Several studies on the "feasibility of creating a fund to cover environmental liability and losses occurring from industrial accidents" have been prepared and considered by the Hungarian Government, the European Parliament and the European Economic and Social Committee.[108]
- After the accidents of Aznalcollar and Baia Mare and Baia Borsa the Commission prepared a Risk Evaluation Map. After the Kolontar Case a new Risk Evaluation Map should be updated in order to take into consideration the situation of the remaining tailing ponds as well as the mines still using the wet technology that poses so many problems regarding waste. This map should also cover the candidates and potential candidates such as Kosovo where there are the same problems regarding tailing ponds that were at the root of the disasters.[109]

[107] In this consultation, one of the conclusions is "to upgrade the EU legal framework on environmental inspections through more extensive criteria on how Member States should undertake inspections and through complementing national inspection systems with enhanced capacity at EU level to ensure consistency and effectiveness of implementation of EU environment legislation". However, there is no mention of mining activities. See European Commission (2014), Summary Outcome of the online stakeholder consultation on the initiative on revision of the EU legal framework on environmental inspections, available at http://ec.europa.eu/environment/legal/law/inspections.htm

[108] Workshop "Study to explore the feasibility of creating a fund to cover environmental liability and losses occurring from industrial accidents", European Economic and Social Committee, 7 November 2012.

[109] See the minor case study on Kosovo.

References

References related to the Aznalcollar Case

Betancor Rodríguez, A.; Muñoz Lorente, J. (2001), "El caso Aznalcóllar: comentario del auto de archivo de las diligencias desde las perspectivas jurídico-administrativa y penal", en Revista interdisciplinar de gestión ambiental, n. 27, pp. 1 y ss.

Boccio Serrano, M. (2001), "El accidente de Aznalcollar desde la Óptica del Derecho Ambiental Comunitario", en Medio Ambiente & Derecho: Revista electrónica de derecho ambiental, n. 5, http://huespedes.cica.es/gimadus/05/AZNALCOLLAR.htm

Carretero Espinosa de los Monteros, C. (2011), "¿Seguro que el TS ha eximido a Boliden de pagar por el desastre de Aznalcóllar?", en Actualidad jurídica Aranzadi, n. 6, p. 6

Fuentes Osorio, J.L. (2011), "La creación de depósitos o vertederos del art. 328.1 CP: ¿acto preparatorio?", en Cuadernos de política criminal, n.º 103, pp. 133 y ss.

García-Alvarez García G., (2012), "Jurisprudencia contencioso-administrativa: el caso Aznalcóllar", en Observatorio de políticas ambientales, pp. 233 y ss.

Gómez Ligüerre, C.I., (2012), "Quien contamina paga… si alguna jurisdicción es competente para condenarlo: Conflictos de jurisdicción en el caso Boliden", en Indret: Revista para el Análisis del Derecho, n.2, pp. 1-29.

GREENPEACE (1999), Doñana. Un año después del vertido de Aznalcóllar, http://www.greenpeace.org/espana/Global/espana/report/other/do-ana-un-a-o-despues-del-ver.pdf

IMPEL (2011), "Massive alumina red sludge release after the failure of a containment dam", in Lessons Learnt from Industrial Accidents, IMPEL Seminar, Aix-en-Provence 16 and 17 November 2011.

Krämer, L. (1999), "El accidente de Aznalcóllar y el Derecho Comunitario Ambiental" en Revista interdisciplinar de gestión ambiental, n.5, pp. 13-24.

Regional Government of Andalusia, Regional Ministry of Economy, Innovation, Science And Employment Directorate General Of Industry, Energy and Mines, Annex I.1 Special Technical Instructions Governing the Implementation of the Contract Resulting from the Procurement Adjudication of Mining Rights for the Aznalcóllar Reserve, available at http://www.juntadeandalucia.es/economiainnovacioncienciayempleo/pam/aznalcollar/Aznalcollar.action?request_locale=en

Salvador Coderch, P.; Fernández Crende, A. (2005), "España c. Boliden Apirsa: Comentario a la STS, 3ª, 22.11.2004", en Indret: Revista para el Análisis del Derecho, n.3, pp. 1-12.

Silva Sánchez, J.M. (1999), Delitos contra el medioambiente, Valencia.

Spanish Government (2014), Real Decreto-ley 6/2014, de 11 de abril, por el que se regula el otorgamiento de la explotación de los recursos mineros de la zona denominada «Aznalcóllar», *BOE*, Núm. 92, 16.04.2014.

References related with the Kolontar Case

Bachmann, J. (2010), "The red sludge tragedy in the Danube Basin", Danube Wacht, 3/2010, available at www.redsludge.bm.hu.

Cseri, P. and Hajba, F. "Red sludge disaster – alumina firm ordered to pay damages", Népszabadság, 23 February 2013, available at http://www.budapesttelegraph.com/news/264/red_sludge_disaster_%E2%80%93_alumina_firm_ordered_to_pay_damages

Gadjics, G (2011), "The Kolontar Red Mud Case. Environmental Liability 2011", Justice and Environment, available at www.justiceandenvironment.org

Herard, D. (2010). The Hungarian toxic red sludge spill and determining public accountability. Disaster Risk Reduction (DRR) Program, Florida International University.

Hungarian Government (2011), Non-Paper by Hungary, Further Steps to Establish a Common European Industrial Disaster Risk Sharing Facility, p. 2.

Jávor, B. and Hargitai, M., Eds.,(2011) The Kolontár Report. Causes and Lessons from the Red Mud Disaster, available at http://lehetmas.hu/wp-content/uploads/2011/05/Kolontar-report.pdf

Szabó, G. (2012) "The problem goes way, way back – Court reaches decision in red sludge civil suit", HVG, 3 November 2012, http://www.budapesttelegraph.com/news/61/the_problem_goes_way__way_back_%E2%80%93_court_reaches_decision_in_red_sludge_civil_suit

Tobă, F. (2011), "Bilateral Cooperation between Romania and Hungary in Case of Accidental Pollution. Two Study Cases", Strategic Impact, Issue 2/2011, pp. 60-66.

Tóth, I. J. (2013),"Key actors of the red sludge disaster in Hungary", in L. Westra, P. Taylor, A. Michelot (Editors) *Confronting Ecological and Economical Collapse: Ecological Integrity for law, policy and human rights*. Routledge, London, New York, pp. 143-155.

Thorpe, N. (2010), "Notes from the red planet. Hungary's Worst ever Chemical Disaster", *Hungarian Review*, issue 01/2010, pp. 30-35, available at www.ceeol.com

Thorpe, N. (2011), "On Mud and Miracles – The First Anniversary of the Red Sludge Disaster", *Hungarian Review*, issue 05/2011, pp. 5-10, available at www.ceeol.com

.

EU Institutions documents and legal instruments

European Commission (2014), Summary Outcome of the online stakeholder consultation on the initiative on revision of the EU legal framework on environmental inspections, available at http://ec.europa.eu/environment/legal/law/inspections.htm

European Commission (2010), *EC Guidance on undertaking new non-energy extractive activities in accordance with Natura 2000 requirements.*

European Commission (2007), Staff Working Document Analysis of the competitiveness of the non-energy extractive industry in the EU, SEC (2007) 771, 04.06.2007.

Council of the European Union (2011), Red sludge spill in western Hungary - Information from the Hungarian delegation, ST 14910/10, 13 October 2011.

Press Release 3118th Council Meeting Environment Luxembourg, Doc. 15321/11, 10 October 2011.

Proposal for a Directive of the European Parliament and of the Council on the management of waste from extractive industries and amending Directive 2004/35/EC – Outcome of the European Parliament's second reading (Strasbourg, 5 to 8 September 2005), Doc. 11947/05, 13.09.2005.

Proposal for a Directive of the European Parliament and of the Council on the management of waste from the extractive industries, Doc. 10143/03, 5.06.2003, p.21.

Proposal for a Directive of the European Parliament and of the Council amending Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances, *COM(2001) 624 final*, 10.12.2001.

Proposal for a Directive of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage, *COM(2002) 17 final*, 23.1.2002, p. 3.

Slovak Government (2011),"Environmental burdens and the need to provide their funding - Note from the Slovak delegation", Doc. 15168/11, 6.10.2011.

Annex A Aznalcollar Mine

Figure 5 Aznalcollar Mine after the restoration project

Source: ayterra.com[110]

Annex B Mandatory Compliance Requirements for Aznalcollar Mine Tender

Source: Annex 1.1. Aznalcollar Mine Tender

As the purpose of this tender process is to grant a Research Permit leading to a Mining Exploitation Concession, this concession requires compliance with existing mining and environmental legislation, and thus compliance with the following steps is mandatory:

1. It is necessary to have a report created by the Geological and Mining Institute of Spain in compliance with article 86 of R.G.R.M.

2. It is necessary to have an Emergency Plan both for the interior and exterior, as the case may be, for the set of activities to be carried out. (Art 39 and 40 of R.D. 975/2009, from the 12th of June).

3. It is necessary to have social capital equalling at least 30% of the total mining project investment amount, including the facilities to be assembled.

4. It is necessary to have Unified Environmental Authorization and Integrated Environmental Authorization for the exploitation and plant, issued by the corresponding environmental agency or have carried out the corresponding procedures based on the criteria of the cited organism.

[110] See website at http://ayterra.com/wp-content/uploads/2014/03/captura_earth_aznalcollar.jpg

5. Compliance with applicable environmental legislation for lands included in protected natural sites and in the Red Natura 2000, specifically, the Corredor Verde del Guadiamar and the el LIC Corredor Ecológico del Río Guadiamar.

6. Given the presence of water in the mine (Corta Los Frailes) and the need to discharge and use the same in labour tasks, both for exploitation as well as for benefit, prior authorization should be provided by the River Basin Authorities for discharges into public watercourses.

7. The corresponding concessions should be provided by the River Basin Authorities for the use of public water channels for mining activities and facilities.

8. A geotechnical auscultation project should be provided for the current mines and debris dumps and the means of control that will guarantee the stability of the same.

9. A contract should be underwritten with an Authorized Mining Control Organism for geotechnical control and vigilance and for safety so as to guarantee the stability of the mining activity.

10. A contract should be underwritten with an Authorized Environmental Control Organism or environmental technical consultant, external to the company, having the condition of ECCMA in the area of environmental protection, for the control and vigilance of compliance with the measures proposed in the Study on Environmental Impact and Restoration Plan.

11. For the installation of plants or other facilities, in accordance with all relevant legislation, the corresponding authorizations of the substantive organisms should be obtained as well as any other authorizations that may be legally required for such purposes.

12. If, in addition to the lands of the Regional Government of Andalusia, the lands of other administrations or individuals are necessary in order to carry out the project, the awardee should acquire or negotiate the same.

13. The awardee should obtain the necessary supply of electrical energy for the facilities from an energy provision company, presenting any necessary projects or amplifications required to the substation or others in the area.

14. Compliance with the Health and Safety Mining Legislation is required, in particular, in regards to the naming of a Facultative Director with the degree required by the law, presentation of the annual Work Plans and other requirements of Law 22/1973, from the 21st of July, of Mining Regulations forthe Mining Region, approved by Royal Decree 2857/1978, from the 25th of August, General Regulations of Basic Mining Safety Rules as approved by Royal Decree 863/1985, from the 2nd of April and their Complementary Technical Instructions.

15. The land area occupied by the tailings pond should be respected so that any waterproofing works are unaffected.

16. The height of the authorized water sheet in the Corta Aznalcóllar should be respected, having a current level of 0 MASL. For modification of this level, a report should be created by the Geological and Mining Institute of Spain.

Annex C Map of locations of MAL industries in Europe

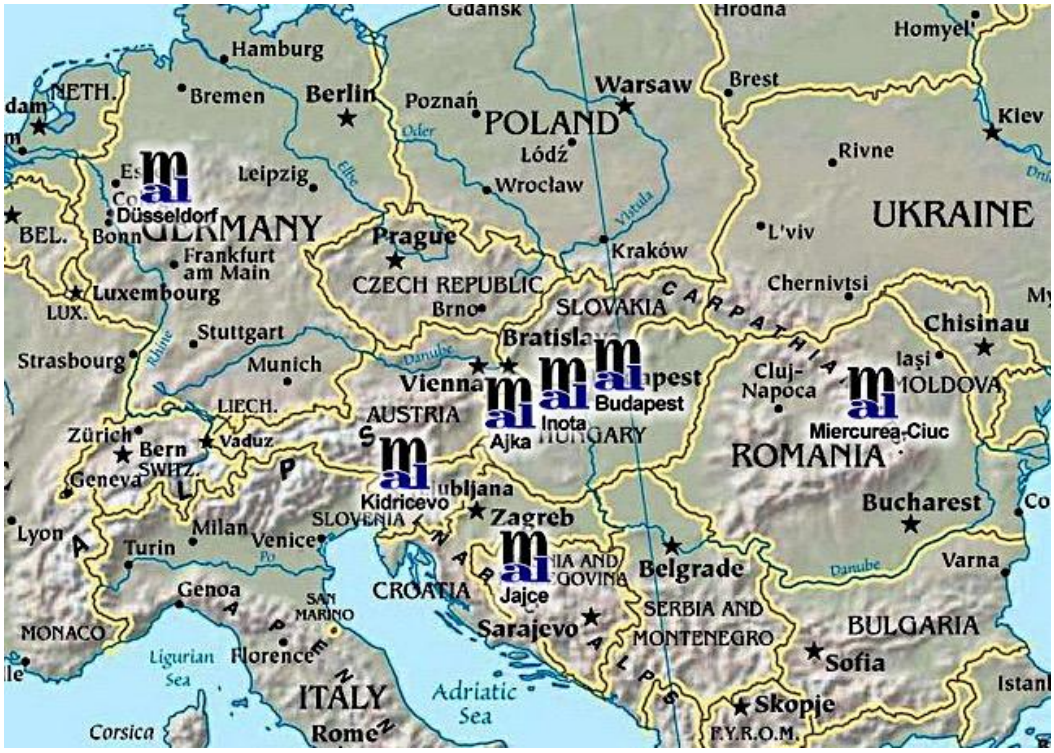

Figure 6 Map of locations of MAL industries in Europe

Source MAL website

Annex D Statement of Mal Co. Ltd. [111]

1.) The owners of MAL Co. Ltd. feel responsibility for their workers, suppliers and customers. In the plant owned by Hungarian businessmen there were no cut-backs even during the worst recession, the company has been able to keep its customers during the global financial crisis and the management will do its best to maintain this situation.

2.) The management of MAL, in co-operation with the Hungarian Defence Forces, has undertaken significant investment- and current costs to execute the switch to the safer dry red mud storage technology in the shortest time possible.

3.) Owners maintain their previous point that not their manner / fault caused the disaster, but other reasons (e.g. planning and building deficiency of the red mud reservoir during the management of the predecessor state-owned enterprise; the negative effects on soil stability of the Western clay-wall ordered

[111] Available at its website at http://english.mal.hu/engine.aspx?page=showcontent&content=135Millard_EN, last consulted on 12 December 2014

to build before the regime-change, which has not been investigated at that time; dams of the cassette No. X have been dimensioned for dam rupture, but not for soil rupture; extreme weather conditions etc.)

4.) Their point of view is also reinforced by all the required permissions received from the competent state authority for environmental protection, and that the operational directives have been observed.

5.) Besides the damage responsibility (200 million EUR) they also dispute the calculation method of the fine strictly on professional base (e.g. the fine is greatly higher than the damage, and than the fair value of the company, or than the turnover of the company, however even the volume of rain is calculated in the stated amount).

6.) MAL Co. Ltd. certainly will attack the penalty on legal way which may appear as collectable liability only in the court period, based on the judgement at law corroborated by expert opinion.

7.) Even after the state surveillance the owners of MAL Co. Ltd. continue to cooperate with the representatives of the Hungarian Government and those of their creditors. As a result of this a draft of an agreement has been prepared which may ensure the retention of workplaces and the continuous increase of the goodwill of MAL.

8.) MAL Co. Ltd. tenders its thanks to all business partners, especially to all suppliers for tolerating the significant delay in payments resulting by the disaster, and in this way they significantly contribute to the operation of the company.

9.) Owners and managers of MAL Co. Ltd. condole with the families of the tragedy's victims and in the future they will still do their best to be a company which assures the living of thousands of families in the region.

Ajka, 15th September 2011

The Management of MAL Co. Ltd.

Annex E Criminal Code Provisions related with the Kolontar Red Mud Case (Act. No. IV. of 1978)

Source: Gadjics, G (2011), "The Kolontar Red Mud Case. Environmental Liability 2011", Justice and Environment, available at www.justiceandenvironment.org

III. 3.1. Damaging the environment:

"280. § (1) Any person responsible for any pollution of the earth, the air, the water, the biota (flora and fauna) and their constituents, resulting:

a) in their endangerment;
b) in damage to such an extent that its natural or previous state can only be restored by intervention;
c) in damage to such an extent that its natural or previous state cannot be restored at all;

---

is guilty of a felony punishable by imprisonment for up to three years in the case of Paragraph a), for up to five years in the case of Paragraph b), and between two to eight years in the case of Paragraph c).

(2) Any person who imports or exports any substance that damages the ozone layer, or any product that contains such substances in a quantity in excess of what is required for personal use, or distributes such substances, is guilty of a felony punishable by imprisonment for up to three years.

(3) The person who damages the environment through negligence shall be punishable for misdemeanor in

the cases of Paragraph a) of Subsection (1) and of Subsection (2) by imprisonment for up to one year, community service work, or a fine; in the case of Paragraph b) of Subsection (1) by imprisonment for up to two years, community service work, or a fine; and in the case of Paragraph c) of Subsection (1) by imprisonment for up to three years.

(4) In connection with Paragraph a) of Subsection (1) and with the first and second phases of Subsection (3) the perpetrator shall not be punishable, and in the case of Paragraph b) of Subsection (1) his punishment may be reduced without limitation if he voluntarily terminates or cleans up the environmental damage before the judgment in the first instance is delivered.

(5) For the purposes of this Section 'pollution' shall mean loading of the earth, the air, the water, the biota (flora and fauna) and their constituents to an extent exceeding the emission standard laid down by law or by decree of the competent authority."

III. 3.2. Damaging the Natural Environment

"281. § (1) Any person who unlawfully obtains, possesses, distributes, imports, exports, transports through the territory of the country, engages in the trafficking of or damages or destroys:

a) any species of a living organism under special protection;

b) any species of protected living organisms, provided that the aggregate value of these species expressed in monetary terms reaches the threshold amount determined by specific other legislation for the species of a living organism under special protection; c) any species listed in Annexes A and B to the European Council Regulation on the protection of species of wild fauna and flora by regulating trade therein; is guilty of a felony punishable by imprisonment for up to three years.

(2) Any person who unlawfully and significantly alters: a) any special bird protection area or special nature preservation area designated as such by the regulation on conservation areas of importance on the European Community scale, or proposed for such designation, or any conservation areas of special importance, or proposed for such designation, or b) any protected natural habitat, cave, habitat of living organisms shall be punishable in accordance with Subsection (1). (3) The punishment shall be imprisonment for up to five years, if: a) the damage done to nature as set forth in Paragraphs a) and b) of Subsection (1) results in the destruction of the species of living organisms under special protection or the species of protected living organisms to an extent where the aggregate value of such destroyed species of living organisms under special protection or the species of protected living organisms expressed in monetary terms reaches the highest amount determined by specific other legislation for the species of a living organism under special protection, times two, or if the environmental damage referred to in Paragraph c) results in the destruction of the specimen of living organisms which are not placed under any degree of protection in Hungary;

b) the damage done to the natural areas set out in Subsection (2) results in the irreversible damaging or destruction of any special bird protection area or special nature preservation area designated as such by the regulation on conservation areas of importance on the European Community scale, or proposed for such designation, or any conservation areas of special importance, or proposed for such designation, or any protected natural habitat, cave, or the protected habitat of living organisms.

(4) The person who damages the natural environment as defined in Subsection (3) through negligence shall be punishable for a misdemeanor by imprisonment for up to two years, community service work, or a fine. (5) For the purposes of this Section 'species of living organisms' shall mean: a) species of a living organism in any form or stage of development; b) hybrids of living organisms propagated artificially or otherwise; c) derivatives of a living organism, including dead specimens and any parts and derivatives thereof, and any goods or products made from any of the above, or containing any ingredient that

originates from any of the above."

III. 3.3. Violation of waste management regulations

"281/A. § (1) Any person who: a) engages in the disposal of waste at a site that has not been authorized by the competent authority for these purposes; b) engages in waste management without authorization, or by exceeding the scope of the authorization, or engages in any other unlawful activity involving waste, is guilty of a felony punishable by imprisonment for up to three years. (2) The punishment shall be for a felony imprisonment of up to five years if the crime described in Subsection (1) is committed involving waste that is deemed hazardous under the Act on Waste Management. (3) The person who commits the crime through negligence shall be punishable for misdemeanor by imprisonment for up to one year, community service work, or a fine in the case of Subsection (1), or by imprisonment for up to two years, community service work, or a fine in the case of Subsection (2). (4) For the purposes of this Section: a) 'waste' shall mean any substance that is deemed waste under the Act on Waste Management, and that may be hazardous to human life, bodily integrity or health, or the earth, the air, the water, and their constituents, and the species of living organisms; b) 'waste management' shall mean the collection, gathering, transportation of waste, including if exported from or imported into the country, or transported through the country in transit, and the pre-processing, storage, recovery and disposal of waste."