Implementation challenges and obstacles of the Environmental Liability Directive

ANNEX – PART B

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## Stóg Izerski – Poland

**Case of environmental damage treated under the ELD transposing legislation**

### Facts

The facts took place in Stóg Izerski in the Góry Izerskie - Izerskie Mountains (Lower Silesian Voivodship, southwestern Poland), a Natura 2000 site designated as a Special Protection Area in 2011 under the Birds Directive.

Most of the Izerskie Mountains is an ecological corridor for large mammals as well as an important population of Black Grouse (*Tetrao tetrix*). Public funds helped restore its habitat and increase its population creating one of the three major refuges for this protected and endangered species.

In the spring of 2007, the company Kolej Gondolowa Świeradów Zdrój, part of the Sobiesław Zasada S.A. group (the company changed its name to Spółka Sobiesław Zasada LLC in August 2009), began construction of a cableway for a ski run in Stóg Izerski. The investor, who is the operator pursuant to the ELD definition (hereinafter “the operator”), did not conduct the environmental impact assessment required under Polish law since 2005, ignored the obligation to monitor the Black Grouse population in the area of construction and ignored the interdiction of conducting work during the birds’ nesting season.

In the summer of 2007, Pracownia na rzecz Wszystkich Istot, an environmental NGO (hereinafter “the NGO”), notified the Voivodeship Inspectorate for Environmental Protection in Wroclaw¹ (hereinafter “the Inspectorate”) about an imminent threat of environmental damage and requested their intervention. The Inspectorate did not act upon it and several months later, the NGO notified the local prosecutor who initiated proceedings for environmental damage.

In January 2008, the NGO notified the Voivode of Lower Silesia (hereinafter “the Voivode”) of the imminent threat of environmental damage. The Voivode immediately requested the operator to provide information on the monitoring of the Black Grouse population. In September 2008, the operator provided the monitoring documents in the area surrounding the construction. The Voivode subsequently requested the operator to provide information on measures planned to prevent the negative impact of operating the cableway and the ski slope on the Black Grouse population in the area. The operator did not comply with this request.

On 3 October 2008, the Act on sharing information on the environment and its protection and the public participation in environmental protection and environmental impact assessment (hereinafter the “Information Act”) designated the Regional Directorate for Environmental Protection (RDOS) as the competent authority in matters of liability for environmental damage prevention and remediation. The

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¹ See section below entitled “Competent authorities in charge of the case” for an explanation of the role of each authority mentioned hereafter.
NGO then notified the RDOS in Wroclaw and the local Inspectorate of Building Control in order to address the environmental infringement but these authorities did not initiate proceedings right away.

In August 2009, RDOS initiated proceedings against the operator but only after an expert was consulted. The expert's assessment provided solid evidence that the situation had developed into actual environmental damage regarding the protection of the species, and included recommendations on appropriate remedial measures. RDOS confirmed the findings of the expert's assessment and ordered the operator to undertake remedial actions.

In March 2010, RDOS issued a decision requiring the operator to undertake a number of preventive measures to prevent further environmental damage. This decision was annulled by the second instance authority on procedural grounds, namely the General Directorate for Environmental Protection (GDOS). The case was then reconsidered by RDOS who issued a new decision in July 2012 requiring the operator to take remedial measures (with reference to the damage that occurred) and preventive measures (with reference to the increased risk of environmental damage). The operator was required to:

- reintroduce 10 bred Black Grouse per year for 5 years (of identical genotype with the local species);
- reduce the number of predators in the area (hunting of 20 specimens each year during 5 years);
- finance the thinning of dense young trees in the areas of breeding and refuge to improve habitat;
- secure the ski slopes in order to prevent skiers from skiing outside the slopes; and
- secure the cable car station.

The operator contested the decision and appealed against it before GDOS. In November 2012, GDOS issued a decision that invalidated RDOS's contested decision and ordered that the case be reconsidered by RDOS. GDOS rejected most of the operator's allegations and did not contest his responsibility for the environmental damage caused by the construction. However, it invalidated the decision on the grounds that RDOS incorrectly ordered the operator to take actions explaining that they are not encompassed within the remedial actions defined in Article 15 (2) of the Damage Act on prevention and repair of environmental damage of 13 April 2007 (hereinafter the "Damage Act") which transposed the ELD into Polish law.

Since the operator contested the decisions issued by RDOS, preventive or remedial measures have not been carried out. The competent authority did not undertake to carry out these measures itself as the ELD transposing legislation provides this possibility (with a claiming of the costs from the operator) only in limited situations, which reportedly did not apply to the present case.

References

Ref. no. of the decision to initiate the administrative proceeding: RDOS-02-WSI-6614-3/39-16/08/09/ap (decision establishing the case issued by RDOS in Wroclaw on 3 August 2009)

Ref no. of the decision requiring the operator (operator) to undertake remedial measures:

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2 There are two such situations: 1) the perpetrator cannot be identified or it is impossible to force him to undertake the measures; 2) there is an urgent situation (urgent imminent threat for human life of health, or a threat of irreparable damage to the environment.)
Notification

In the summer of 2007, Pracownia na rzecz Wszystkich Istot (an environmental NGO) notified the authorities (The Voivodeship Inspectorate for Environmental Protection in Wrocław) about an imminent threat of environmental damage and requested their intervention. The Inspectorate did not act upon it and after several months, the NGO notified the local prosecutor who initiated proceedings for environmental damage.

In January 2008 the Voivode of Lower Silesia, the Regional Directorate for Environmental Protection (RDOS) in Wrocław and the local Inspectorate of Building Control were requested to handle the environmental law infringement by the operator. However these authorities did not initiate proceedings before August 2009.

Competent authorities in charge of the case

Several authorities were involved. The administrative authorities at the regional level were competent for matters of environmental damage before specific authorities were created in 2008 to handle these cases:

- The Voivodeship Inspectorate for Environmental Protection in Wrocław;
- The Voivode of Lower Silesia;
- The Regional Directorate for Environmental Protection (RDOS);
- The General Directorate for Environmental Protection (GDOS);

The main tasks of the Voivodeship Inspectorate for Environmental Protection in Wrocław are to monitor compliance with the law on environmental protection, carry out inspections and evaluate the state of the environment (the Inspectorate has to be notified of an environmental damage although it may not issue any decision against an operator). It is one of the main authorities responsible for the enforcement of environmental law in Poland. It was notified by the NGO of an imminent threat of environmental damage in the summer of 2007.

Before the Information Act entered into force in October 2008, the Voivode was the competent authority in matters of liability for environmental damage prevention and remediation. The Voivode of Lower Silesia was notified by the NGO of an imminent threat of environmental damage in January 2008.

Following the coming into force of the Information Act, RDOS became the competent authority on 15 November 2008. It became responsible for assessing imminent threat of, or actual environmental damage and ordering preventive or remedial measures. It was notified by the NGO of the environmental infringement.

GDOS is the higher instance authority in relation to RDOS who is the competent authority at the Voivodship level.
Annexes

Determination of the damage/imminent threat

The case focused on national biodiversity damage, i.e. damage affecting protected species and their habitat.

The environmental damage is caused by forest cutting, noise emission from construction work, the cableway operation and the increased presence of tourists scaring wild birds (Black Grouse) forced to abandon their habitat.

Persons involved in determining the damage or imminent threat

RDOS requested in 2009 and 2011 that an external expert provides expertise to establish proof of an environmental threat/damage and conduct the environmental impact assessment of the cableway and ski slope operation on the Black Grouse population and on the preservation of the ecological corridor. The Regional Directory of State Forests in Wrocław, at the request of RDOS, reviewed the preventive and remedial measures proposed by the expert and considered that most of the proposed measures seemed correctly identified and effective to ensure the protection of the endangered species.

Access to information in order to establish the case

Access to information was very limited due to the fact that the operator did not have data on the birds population as required by RDOS.

At first, the operator cooperated with the regional authorities to provide information. In September 2008, he provided documents concerning the monitoring of population level in the area surrounding the construction work as requested by the Voivode of Lower Silesia. The operator became less willing to cooperate over time, refusing to take responsibility for causing the environmental damage.

Duration between notification and establishment of the case

17 months: from the notification on 7 January 2008 to the decision initiating the administrative proceedings by RDOS on 3 August 2009

Identification of liable party(ies)

As explained above, the operator has been identified as the investor responsible for causing the environmental damage. The operator however refused to take responsibility and challenged the decisions of the competent authority.

Main difficulties faced/concerns to establish that the ELD could/can be applied to deal with the case

The activity carried out by the operator is not an ELD Annex III activity and, consequently, strict liability did not apply. The competent authority had to prove the causal link between the operator and the environmental damage which was not necessarily easy to establish, especially since the Damage Act does not include a rebuttable presumption of causality.
Measures taken

- **Preventive measures**
  
  RDOS issued a decision in July 2012 requiring the operator to take preventive measures (with reference to the risk of increase of environmental damage) including:
  - securing the ski slopes in order to prevent skiers from skiing outside the slopes; and
  - securing the cableway station.
  
  These measures have not been carried out by the operator.

- **Remedial measures**
  
  In the above mentioned decision of July 2012, RDOS also required the operator to take remedial measures (with reference to the damage occurred) such as:
  - reintroducing 10 bred Black Grouse per year for 5 years (of identical genotype with the local species);
  - reducing the number of predators in the area (hunting of 20 specimens each year during 5 years);
  - financing the thinning of dense young trees in the areas of breeding and refuge to improve habitat.
  
  The operator contested this decision and did not undertake the remedial measures ordered nor did the authorities. Under Polish law, the authorities can undertake preventive and/or remedial measures in lieu of the liable operator, only if (1) the operator cannot be identified or a decision issued has been ineffective; or (2) undertaking immediate measures is necessary in light of a threat to health or human life or there is a possibility of irreversible damage to the environment (art 16 of the Damage Act). In this case, the authorities considered that Article 16 did not apply. The decision issued by RDOS was not deemed ineffective as it was invalidated by GDOS who required RDOS to reconsider it.
  
  It is important to note that remedial measures were ordered but that the causes of the damage still exists (in particular the operation of the ski infrastructure); thus there are doubts whether the implementation of remedial measures would be effective.

**Costs**

Prevention and/or remediation measures have not been undertaken and, as such, the costs were not borne by anyone (to this day).

It could also be assumed that the operator did not have insurance or other financial security to cover the costs relating to the environmental damage as it is not required in Poland. Moreover, Poland chose not to adopt the optional provisions of article 14 (1) of the ELD on taking measures to encourage the development of financial security instruments and markets to enable operators to use financial guarantees to cover their responsibility for environmental damage. In addition, the operator did not resort to an insurance when the environmental damage occurred.

**Judicial action**

In Poland, administrative remedies must be exhausted before a case can be brought to court. To this day, the case is still being handled by the competent administrative authorities (RDOS and GDOS) and is being reconsidered by RDOS.
Level of co-operation between authorities, liable parties, and other stakeholders

The operator responsible for the environmental damage did not support the authorities initiating proceedings. He contested the result of the expert’s assessment and the decisions issued by RDOS, which he challenged before the higher instance authority, GDOS.

The operator’s unwillingness to cooperate might stem from the fact that he has not achieved the expected return on his investment.

Challenges/obstacles/problems in implementation of the ELD

The main challenges and obstacles for effectively implementing the ELD in this case may be summarised as follows:

- The fact that the activity carried out by the operator was not an Annex III activity subject to strict liability.
  It was reportedly difficult in this case to prove that the operator was guilty of causing the damage to the protected species and habitats within the Natura 2000 areas.
- The lack of data to determine the initial state of the environment made it difficult to assess the extent of the damage in the Natura 2000 area and provide adequate forms of protection due to the lack of inventories of the natural elements.
- RDOS had to outsource scientific expertise for this case, which is often very costly and indicates a lack of sufficient personnel.
  The Damage Act regulates a wide range of issues, which results in the administrative authorities not having sufficient personnel with the necessary expertise to investigate environmental damage cases.

Best practices in the implementation of the ELD

No specific best practices identified.

References:

Legal texts and public reports:

- Act on prevention and repair of environmental damage of 13 April 2007
  http://isap.sejm.gov.pl/Download;jsessionid=698B224E314719A969DoCEA263661DC3?id=WDU20070750493&type=3
- Act on sharing information on the environment and its protection, public participation in environmental protection and environmental impact assessment of 3 October 2008
- Decision of the General Director for Environmental Protection of 15 November 2012, ref. no. DOP-k511.2.2011.mg.1
Press articles:

- *Dzikie Życie*: 2012, nr 11; 2012, nr 9; 2012, nr 4; 2011, nr 8; 2009, nr 11; 2008, nr 6; 2008, nr 2;
- *Rzeczpospolita*, 12 September 2012

Experts interviewed:

- Krzysztof Okrasiński, from *Pracownia na rzecz Wszystkich Istot* (environmental NGO)
- Anna Sitnikow from the Regional Directorate for Environmental Protection (RDOS) in Wrocław
Facts
On or about 2 July 2009, crude sewage was discharged for several hours into the Three Pools waterway at Crossens, Southport, in Northern England, following the failure of foul water pumps at the Crowland Street pumping station operated by United Utilities (hereinafter “the Operator”). This resulted in a release of raw sewage effluent into surface water which impacted the biological quality of the water. The spill caused the death of over 6,000 fish in a 5 kilometer stretch of the river.

The North West Region of the Environment Agency (hereinafter “the Agency”) prosecuted the Operator under the Water Resources Act 1991. The Operator pleaded guilty, was fined £14,000 and ordered to pay nearly £8,000 in costs. It also paid £41,000 for the cost of restocking the fish.

In addition, based on the reasonable grounds that an environmental damage may have been caused, the Agency assessed the damage under the Environmental Damage (Prevention and Remediation) Regulations 2009 (hereinafter “the EDR”), the ELD transposing legislation. The Agency determined that environmental damage to surface water had occurred pursuant to Regulation 4 of the EDR because the biological quality element for fish had dropped from good to poor, changing sufficiently to lower the status of the water body within the meaning of the Water Framework Directive (2000/60/EC).

Therefore, the Agency served a Notification of Liability on the Operator on 2 December 2009 requiring it to propose measures for the remediation of the damage by 5 February 2010. The Operator agreed to let the Agency propose remediation measures on its behalf.

Subsequently, the Agency developed and consulted on options for remediation of the damage in accordance with the requirements of the EDR which are more stringent than those set forth under the Water Resources Act 1991. Indeed, pursuant to Regulation 5 of the EDR, the operator has to carry out primary as well as compensatory remediation to compensate for the interim loss of resources or services pending full recovery.

On 7 October 2011, the Agency served a Remediation Notice under the EDR on the Operator, ordering it to restock the river with fish (primary remediation) and to carry out habitat and access improvements to compensate for the loss of angling services due to the damaged aquatic environment (compensatory remediation).

References
Remediation Notice, 7 October 2011, Environment Agency

Notification
On 2 July 2009, following a call from a member of the public, officers from the Agency visited the site where they met representatives from the Operator and took samples of the discharge of the effluent and of the watercourse both upstream and downstream. It became apparent that there had
been a large discharge of sewage which had had a devastating effect on the fish population.

**Competent authority in charge of the case**

The Environment Agency is the competent authority in this case. The Agency is the enforcing authority for all water damages and is responsible for maintaining or improving the quality of fresh, marine, surface and underground water in England and Wales.

The Agency consulted on options for remediation of the environmental damage.

**Determination of the damage/imminent threat**

The Agency found that the Operator caused an environmental damage to surface water. The pollution incident resulted in an extensive loss of fish (over 6000) over a distance of about 5km downstream. The water body was indeed heavily modified. Before the incident it was classified as having moderate ecological potential overall but the biological quality element was good. After the incident, the biological quality element for fish had been reduced to poor resulting in fish stocks taking up to 8-9 years to recover naturally.

**Persons involved in determining the damage or imminent threat**

Expert staff of the Agency carried out the assessment of the damage and determined that the scale of damage to the fish stocks amounted to 'environmental damage'.

**Access to information in order to establish the case**

Data was available to the Agency regarding the previous status of the water body in terms of the quality of the fish stocks prior to the incident, from previous surveys that had been carried out for the purposes of classifying the water body in accordance with the requirements of the Water Framework Directive. Data was available regarding the scale of the fish kill, from surveys carried out after the incident, and from counting the number of dead fish found, etc. The drop in status was clear in this case.

**Duration between notification and establishment of the case**

Almost two years went by between the Notification of Liability and the first Remediation Notice.

**Identification of liable party(ies)**

The Operator was identified as having caused the environmental damage.

**Main difficulties faced/concerns to establish that the ELD could/can be applied to deal with the case**

No difficulties were faced.

**Measures taken**

- Preventive measures

No preventive measures were taken.
Emergency primary remediation measures were attempted by the Agency on or about 2 July 2009. The pollution caused the oxygen levels in the watercourse to fall and ammonia contained in the sewage is toxic to fish. The Agency tried to reduce the impact of the pollution by deploying hydrogen peroxide to boost oxygen levels in the watercourse. Despite its efforts a five mile stretch of the river was badly affected. The fish included roach, bream, tench, pike and perch of all sizes and ages.

Subsequently, on 7 October 2011, the Agency served a Remediation Notice under the EDR on the Operator who agreed to let the Agency develop options for remediation on its behalf. The objective of remediation of damage to surface water is to achieve the same level of natural resource of services as would have existed if the damage had not occurred. The Remediation Notice required the Operator to carry out the following remedial works:

**Primary remediation measures:**

- Restocking Three Pools Waterway with 4,848.5 lbs of freshwater fish, as specified in annex 4 of the Report prepared for the Environment Agency by Resource Decisions Ltd dated 1 September 2011 ref RDRA001 -09 ("the Report").

The objective of this measure was to return fish stocks to their pre-incident condition.

These measures had already been completed and paid for by the Operator at a cost of £41,000.

**Compensatory remediation measures:**

- A combination of habitat and access improvements on both banks of Three Pools, Waterway over a distance of 350 metres upstream of Moss Lane Bridge, Southport, as set out as ‘Option 4’ in the Report, comprising the installation of coir rolls pre-planted with nativereeds to increase fish stocks and the installation of 30 fishing pegs and associated platforms to improve access and safety for anglers.

The objective of this measure was to compensate for the interim loss of fish stocks.

The measures had to be taken by 31 January, 2012.

**The compensatory remediation measures are now completed.** They were carried out by the Agency and paid for by the Operator. The water quality had returned back to its original state over a period of a few weeks from the initial incident. The Agency was aiming at improving the habitat status and safety for anglers as part of the remedial actions. This has been carried out to a good standard and has improved this stretch of the fishery.

**Costs**

The Operator bore the costs of the primary remediation measures for a total of £41,000. The estimated cost of the compensatory remediation measures was £39,000 and was paid by the Operator.
Judicial action
The Agency prosecuted the Operator at the North Sefton Magistrates’ Court after the pollution incident under the Water Resources Act 1991. The Operator pleaded guilty and was fined by the Court.

Level of co-operation between authorities, liable parties, and other stakeholders
The Operator co-operated throughout.

Challenges/obstacles/problems in implementation of the ELD
There were no particular difficulties in this case but it took time and resource to establish water damage. In the meantime, the Agency used other legal powers to restock fish and recover its costs.

Best practices in the implementation of the ELD
This was a relative straightforward case:
- Clear drop in status from good to poor
- Good quality data
- Operator co-operated throughout

References:
- Remediation Notice, 7 October 2011, Environment Agency

Expert interviewed:
- Caroline Fielder, Environment Agency, UK
Annex 2: Cases of environmental damage treated under national legislation because the conditions of the ELD were not met

**Coussouls de Crau – France**
Case treated under national legislation because the conditions of the ELD were not met

**Facts**

On 7 August 2009, a breach in a 40-inch underground crude oil pipeline operated by the South European Pipeline Company (SPSE – Société du Pipeline Sud-Européen) led to over 4,000 m³ of crude oil spilling over five hectares into the Coussouls de Crau nature reserve, at Terme Blanc (property of the Conseil Général) on the municipality of Saint-Martin de Crau in southern France (Bouches-du-Rhône).

The nature reserve, which is part of the Natura 2000 network, holds a unique ecosystem, reportedly the last dry-steppe in Europe, a habitat for endangered species. The contaminated zone is located in a Special Protection Area (FR9310064 “Crau”) under the Birds Directive and a Special Conservation Area (FR9301595 “Crau Centrale – Crau Sèche”) under the Habitats Directive.

According to the various arrêtés préfectoraux (prefectoral orders) taken following the leak, in addition to impacting a zone of priority habitats of Community interest, the accident may have disrupted zones of nesting, resting and feeding of protected species. Furthermore, the hydrocarbons reached the Crau water table, an important water resource (defined as a major resource to be preserved for abstraction of drinking water).

The oil leak therefore resulted in significant environmental damage, impacting land, water and biodiversity.

In the days that followed the accident, the soil of the 5-hectare contaminated land was excavated as deep as 40 centimeters and was evacuated by truck (the traffic of these trucks had also an impact on the ecosystem) to a specialised treatment site in Bellegarde (in the neighboring département of Gard). Overall, about 60,000 tons have been excavated. The excavations were later filled with virgin coussouls. In order to favour the (re)-development of the vegetation, laboratory-bred harvesting ants, which carry seeds, are being used (part of a research program). As to the pollution of the water table, the solution retained is that of pumping the oil: 70 wells have thus been dug and 25 pumps installed in order to skim the oil floating at the surface of the water table.

**References**

Administrative reference (Bouches-du-Rhône Préfecture): Dossier n°104-2009 URG/EAU (it is the number of the first prefectoral order, which is mentioned in subsequent orders)
## Notification

The rupture of the oil pipeline was first witnessed by a reserve warden, who called SPSE to alert them. The reserve warden is also the one who notified the competent authority.

## Competent authority in charge of the case

Bouches-du-Rhône Préfet, with the technical support of the DREAL (Direction Régionale de l’Environnement, de l’Aménagement et du Logement) for the Provence-Alpes-Côte d’Azur region (PACA), and the DDTM (Direction Départementale des Territoires et de la Mer) – both have internal experts.

Various other experts were consulted by the competent authority at different stages of the procedure, notably (the list is not exhaustive):

- CEDRE – Centre de Documentation, de Recherche et d’Expérimentation sur les pollutions accidentelles des eaux (www.cedre.fr);
- Pr. Patrick Höhener, researcher at the environmental chemistry laboratory of the University of Aix-Marseille;
- Thierry Dutoit, professor and researcher at the University of Avignon, and President of the scientific committee of the Coussouls de Crau nature reserve.

## Determination of the damage/imminent threat

There were both environmental damage and imminent threat of such damage, involving water, land and biodiversity (species and habitats).

## Persons involved in determining the damage or imminent threat

See supra “Competent authority in charge of the case”.

Regarding the intervention of CEDRE, the prefectoral order of 24 June 2010 (mise en demeure – formal notice) indicates that the competent authority had to consult it as a matter of emergency to verify whether SPSE had taken all necessary measures in order to limit and end the contamination of the aquatic environment.

The then DDAF (Direction Départementale de l’Agriculture et de la Forêt, now DDTM) was consulted in order to validate the protocol, position and numbers of piezometers for the monitoring of water quality (prefectoral order of 13 August 2009, art.4)

In addition, a technical and environmental monitoring committee (comité de suivi technique et environnemental) was set up pursuant to Article 7 of the prefectoral order of 13 August 2009. The purpose of the committee is to follow and monitor the site’s cleanup until its full remediation. It is composed of: services of the State, the landowner (Bouches-du-Rhône Conseil Général), the two co-administrators of the Coussouls de Crau Nature Reserve (Conservatoire/Études des Ecosystèmes de Provence/Alpes du Sud – CEEP – and the Bouches-du-Rhône Chamber of Agriculture), the municipality of Saint-Martin-de-Crau, the Conseil Régional of Provence-Alpes-Côte d’Azur, the water table administrator (SYMCRAU) and SPSE. The committee may suggest additional requirements to the Préfet.

The operator consulted ICF Environnement and Naturalia (environmental consultants).

## Access to information and data (evidence) in order to establish the case - Legal and/or practical
reasons explaining why the case could not be treated under ELD
The case was not treated under the ELD as the transport of hydrocarbons by pipeline was not an Annex III activity, and therefore not subject to the strict liability regime of the ELD. The competent authority would therefore have had to establish SPSE’s fault or negligence in order to apply the ELD, which could have been rather difficult.

Following this case, the list of activities subject to strict liability under the French environmental liability legislation was modified (Decree No. 2012-615 of 2 May 2012 amending Article R.162-1 of the Environment Code) to include “transport by pipeline of natural gas, liquid or liquefied hydrocarbons, or chemical products”.

Duration between notification and establishment of the case
The competent authority was notified on 7 August 2009 (day of the accident) and the case was opened on that same day.

Liable party(ies)
The operator of the pipeline is SPSE. The competent authority did not identify any other liable party (no shared responsibilities).

SPSE did not use any defence and agreed to bear the costs of the cleanup and remediation of the site. However, concerning the ongoing criminal investigation, SPSE most certainly used defences during the investigation phase and will certainly do so during the trial phase, when it will most likely argue that it was neither at fault nor had been negligent (see infra “Judicial action”).

National regime applied
As seen supra, the transport of oil by pipeline did not fall within the scope of Annex III activities.

The competent authority applied the national rules on water protection (Articles L.211-1 and subs. of the Environment Code, notably Article L.211-5), which in itself is questionable as the various measures imposed on the operator on these legislative grounds dealt with water, but also land and biodiversity.

Under the water protection legislation, the Préfet may require the operator to take preventive and/or remedial measures (see Articles L.211-5 and L.211-6 of the Environment Code).

Main difficulties faced/concerns to establish that the ELD cannot be applied to deal with the case
See supra ”National regime applied” and ”Legal and/or practical reasons explaining why the case could not be treated under ELD”.

Measures taken - did the measures go below or beyond measures that could have been applied under ELD?
- Preventive measures
Pursuant to Article L.211-5 of the French Environment Code, the Préfet has the power to impose preventive measures.

In the case at hand, the Préfet imposed various emergency measures on the operator in the days that followed the accident, the first one being the suspension of operation of the pipeline. In the prefectoral order of 13 August 2009, the Préfet also required that the operator undertake cleanup operations in order to end the risk that represents the HC-contaminated soil for the quality of groundwater and the local fauna and flora, and thus to mitigate potential transfers of pollution. The excavation operations started in August 2009 and lasted until April 2010.

In said prefectoral order, the Préfet further required the operator to take a number of preventive measures to ensure good cleanup operations, in particular: actions to secure the site and to ensure preservation of the natural environment (in particular fauna and flora) during operations; studies and operations regarding excavations and embankments, and ex situ treatment of the contaminated soil; monitoring of water quality (setting up of piezometers). It also required SPSE to submit other studies and notes: assessment of the current situation with inventories (fauna/flora/habitats, hydrogeology...); impact assessment, in particular Natura 2000 impact assessment, concerning water, land, and fauna and flora.

However, the traffic of more than 2,000 trucks used for excavation operations and the transport of the excavated soil (about 60,000 tons) to a specialised treatment facility in Bellegarde, had reportedly a negative impact on the ecosystem, which added to the environmental damage.

In addition, it appeared that the pollution had reached the water table. Water quality monitoring showed an acceleration and propagation of the contamination compared to the hypotheses that had been retained in the modeling submitted by the operator. In order to contain the pollution, SPSE resorted to the use of a hydraulic barrier to artificially stabilise the contamination plume.

All preventive measures were carried out by the operator.

Overall, and pursuant to the prefectoral order of 13 August 2009 and 24 June 2010 (n°2 – formal notice), the operator has carried out 19 studies.

**Remedial measures**

Under the national regime applied, the remedial measures provided by the water protection rules are similar to those provided under the ELD, although the language used is not necessarily the same (the applied rules do not distinguish between primary, complementary and compensatory measures). However, the national legislation applied provides that the authority may impose compensatory measures regarding damage to the aquatic environment, but not regarding land and biodiversity damage. As such, it is legally questionable whether the competent authority had the power to require certain remedial measures imposed on the operator (such as the acquisition of natural land in the Crau region – see *infra*).

In addition, compensatory measures were imposed on the operator to make up for the environmental damage that occurred as a result of cleanup operations (and not as a result of its occupational activity).

The process to determine appropriate remedial measures included exchanges between the operator and the competent authority and took into consideration the various studies and assessments submitted by the operator and the remedial measures it proposed. The remedial measures were adopted following submission of various documents by SPSE, notably:
In addition, the prefectoral orders of 6 January 2011 and 1st August 2011 were first notified to the operator as drafts to obtain its comments (which SPSE provided on 5 January 2011 and 5 July 2011, respectively), before being finally adopted.

The remedial measures to be undertaken were provided in the abovementioned prefectoral orders.

Following the various studies submitted by the operator, it appeared that the excavation operations could be stopped as regards the protection of the Crau water table and biodiversity issues, and the site remediated. The excavation operations ended in April 2010.

The operator proposed to remediate the site using materials as similar as possible to virgin coussoul. This proposal was approved by the technical and environmental monitoring committee, and was effectively carried out (the coussoul was taken from a nearby quarry). Operations were finalised in April 2011.

The prefectoral order of 6 January 2011 imposed various measures on the operator (apart from terminating excavation operations) in order to confine and reduce contamination of the Crau water table, namely:

- Maintain oil pumping and skimming as long as it is effective;
- Maintain the hydraulic barrier until the floating lens ("lentille de flottant") is stabilised;
- Monitor the evolution of the floating lens on a monthly basis;
- Update the modeling of the oil plume propagation and carry out additional tests in order to assess the feasibility of, in particular, monitored natural attenuation (MNA).

It further imposed scientific monitoring for water and biodiversity.

The prefectoral order of 1st August 2011 further specified the remedial measures the operator was to implement in favor of water and biodiversity. This order supplemented the additional measures proposed by SPSE to deal with the residual impacts resulting from the cleanup operations, aiming at restoring ("recréé") the impaired ecological functionalities. In addition, the order clarified and further detailed the measures to be undertaken by the operator in order to compensate damage to the natural heritage.

Pursuant to the abovementioned prefectoral order, the remedial measures include the following (according to orally received information, minimum cost estimates were provided by the operator in a letter of 16 August 2011):

- Embankment and rehabilitation operations on the contaminated site, according to the best available ecological techniques (€1,192,000);
- Accompanying measures and measures for impact reduction and scientific monitoring:
  - Co-financing of two theses over a period of 3 years (2011-2013) on (i) soil engineering (€66,000 over 3 years) and (ii) monitored natural attenuation (€90,000 over 3 years);
  - 8 protocols for the monitoring of fauna, over a period of 3 years (2011-2013) (€151,000);
  - Protocol for the monitoring of the Crau water table over a 20-year period (€540,000);
Study on monitored and stimulated ("dynamisé") natural attenuation (€385,000 over 3 years);
- Pumping and skimming of the oil at the surface of the water table, for 5 years (2011-2015); the duration may be extended if necessary (€590,000/year, i.e. €2,950,000 over 5 years);
- Compensatory measures for land:
  - Acquisition, within two years, of natural land in the Crau region, to compensate for the lasting loss of value of the contaminated site’s natural heritage. In this respect, a ratio of 10 must be applied on the 8.5 ha impacted by the contamination. If possible, the land should be acquired in one piece and must be located outside the nature reserve; the operator will then retrocede the land to a competent partner and is meant to be eventually integrated in the perimeter of the nature reserve (€680,000);
  - Contribution to the ecological management of the acquired land for 30 years (€127,500);
  - Acquisition from CDC Biodiversité of 10 ha of natural assets in the Cossure estate (ratio of 1 for 1), to compensate for the loss of functionality of the natural environment that resulted from the cleanup operations (20 months) and that will persist during the monitoring and water skimming operations. Such acquisition will contribute to re-creating steppe habitats and will be managed for at least 30 years (the management is guaranteed by CDC Biodiversité) (€380,000).

The overall cost of remediation pursuant to the prefectoral order of 1st August 2011 is therefore estimated at a minimum of €6,562,000. This amount does not take into account the global costs for site cleanup and pipeline repair, evaluated at around €48,000,000.

Monitoring of remedial measures is ensured by the competent authority and the technical and environmental monitoring committee, which meets on a regular basis.

**Costs**

The costs of implementation of preventive and remedial measures were and are still currently borne by the operator, SPSE. All prefectoral orders imposing measures on the operator provided that SPSE would bear such costs (pursuant to Articles L.211-5 and L.211-6 of the Environment Code). The operator did pay all relevant costs and, consequently, there was no need for the competent authority to recover such costs from SPSE.

The costs were covered by insurance..

**Judicial action**

There was no administrative lawsuit launched against the operator as SPSE complied with the obligations imposed by the competent authority in the various prefectoral orders.

However, the municipality of Saint-Martin-de-Crau filed a criminal complaint against SPSE. The investigation was conducted by Mrs. Ghislaine Roque, examining magistrate (juge d’instruction) in Tarascon. SPSE was formally indicted on 14 October 2010 on several counts. On 26 October 2012, the examining magistrate dropped the charges on 7 counts and retained only the count of involuntary pollution, for which SPSE will be tried before the Tarascon criminal court (tribunal correctionnel) on 4-5 June 2013.
Level of co-operation between authorities, liable parties, and other stakeholders

The operator supported the taking of the case and fully cooperated with the competent authority and other stakeholders. The company complied with all of its obligations as imposed by the Préfet.

The technical and environmental monitoring committee set up by the prefectoral order of 13 August 2009 is monitoring remediation of the site. Regular exchanges take place between SPSE and its environmental experts and the competent authority and other stakeholders.

The remedial measures undertaken were reportedly of an exemplary nature and ensured (and continue to ensure) the best level of remediation.

References:
- **Arrêté préfectoral** of 13 August 2009 imposing emergency measures;
- **Arrêté préfectoral** of 24 June 2010 (no.1) lifting the suspension of operation for 6 months;
- **Arrêté préfectoral** of 24 June 2010 (no.2): formal notice (mise en demeure);
- **Arrêté préfectoral** of 6 January 2011 imposing measures regarding rehabilitation of the site, protection of the Crau water table and scientific monitoring for water and biodiversity;
- **Arrêté préfectoral** No. 2011213-0006 of 1st August 2011 specifying the measures to be undertaken by SPSE regarding biodiversity and water;
- **Press release** of the municipality of Saint-Martin-de-Crau of 20 December 2010, available at: www.ville-saint-martin-de-crau.fr/IMG/pdf/07_Depollution_par_ANS2.pdf;

La Provence, *Comment la marée noire de la Crau a disparu*, 16 May 2012, available at: www.laprovence.com/article/developpement-durable/comment-la-maree-noire-de-la-crau-a-disparu;


Documents and oral information provided by DREAL PACA, including information on remediation costs, environmental expert reports and presentations, and minutes of the meeting of the technical and environmental monitoring committee of 14 March 2012.

**Experts interviewed:**

- Laurent Roy, head of DREAL PACA at the time of the interview;
- Robin Rolland, DREAL PACA, Biodiversity, water and landscape department.
- David Guillarme, Ministry of Environment, head of Community and international environmental law bureau.
Rye Harbour spill – United Kingdom
Case treated under national legislation because the conditions of the ELD were not met

Facts
On 11 March 2009, an incident occurred in Rye Harbour (East Sussex, England), at a chemical factory operated by Solvent Resource Management Ltd (SRM) (a solvent recycling company) and located near the coast. The SRM refinery is regulated under the Integrated Pollution Prevention and Control Directive (now replaced by the Industrial Emissions Directive) and the Seveso II Directive. It is a Tier 1 site under the emergency services’ Control of Major Accidental Hazards criteria (the Control of Major Accident Hazards Regulations 1999 implements the EC Seveso II Directive into UK law).

On that day, a large steel storage tank which had been damaged by internal corrosion collapsed onto the retaining wall and ruptured, spilling approximately 350,000 litres (350 tonnes) of potentially hazardous and highly flammable solvents and contaminated waste water (the mixture contained approximately 91% water, 2% solids and 7% mixed solvents, predominantly toluene) onto a site located next to the Rother estuary and a site of special scientific interest (SSSI) important for breeding terns and gulls as well as passage migrants such as whimbrels. At the same time, the collapse damaged a valve on an adjoining tank, which in turn released approximately 90 tonnes of contaminated waste water onto the site and neighbouring property, including on land with historic heavy contamination.

The site was potentially impacted by the solvent during the first couple of hours following the event (with some possible escape into the estuary via the drainage system, as well as impacts on groundwater and surrounding land). The operator locked down all systems very quickly. Any solvent which had entered the estuary had not resulted in a lowering of its status under the Water Framework Directive due to dilution by the tidal flush, and had thus not exceeded the threshold for water damage under the ELD transposing legislation. The same applied to groundwater contamination, as a minimal amount of solvent entered groundwater, which chemical status was "poor" (solvent in groundwater and drains was recovered by pumping). Biodiversity was not impacted (the SSSI is located upstream of the solvent spill). The Environment Agency (EA) subsequently concluded that the incident was not an ELD incident. The Agency further concluded that the risk of harm to aquatic life in the estuary and coastal waters was low.

Preventive as well as remedial measures were taken, including the following: a 300-metre cordon was set up around the site for two days; most of the solvent was recovered by the operator (much had discharged onto hardstanding); solvent was pumped from groundwater and recovered; water monitoring was carried out.

However, as to land contamination, the EA was concerned that, although only a small amount of solvent entered the soil, solvent could mobilise existing contaminants and result in vapours causing harm to human health (which could then trigger the ELD definition of "environmental damage to land"). Such human health effects were assessed by the relevant authorities (EA, Health and Safety Executive - HSE- and Rother District Council) and ongoing monitoring was undertaken to ensure there was no significant risk of harm to human health. No such effects were found.
References
Name and/or references of the case: SRM/Rye Harbour.

Notification
The operator reported the incident to the EA right away, as it had a duty to report under its environmental permit. The EA was involved in dealing with the incident from the day it occurred.

Competent authority in charge of the case
The Environment Agency is the competent authority as the site is EA-regulated.

However, other involved authorities included the local authorities and the Health and Safety Executive (HSE), which is the national regulator for workplace health and safety.

Natural England was also informed because of the nearby SSSI.

Determination of the damage/imminent threat
Potential environmental damage to water, biodiversity and land.

Following investigations, including monitoring operations, the EA concluded that no environmental damage had occurred to surface water, groundwater or biodiversity, and that there was insufficient likelihood that environmental damage to land would occur.

See supra ‘Facts’ for further information.

Persons involved in determining the damage or imminent threat
Water monitoring was carried out by the EA and the operator. The effect on land contamination, i.e. the risk of vapours, was also monitored. EA, HSE, Rother District Council and the operator worked together.

Access to information and data (evidence) in order to establish the case - Legal and/or practical reasons explaining why the case could not be treated under ELD
The operator cooperated with the various authorities involved. EA (and HSE) had access to the site and carried out monitoring operations.

The incident had triggered Regulation 14 of the Environmental Damage Regulations 2009 (EDR) (ELD transposing legislation), which regards the preventing of further environmental damage. However, following the investigation carried out, EA concluded that the ELD significant threshold was not met (see supra ‘Facts’ and ‘Determination of the damage’).

Duration between notification and establishment of the case
As soon as the EA was notified of the incident it started to consider whether the EDR applied.

Liable party(ies)
The operator was identified (SRM).

However, with regards to land damage, the spillage occurred into land with historic heavy contamination.
As such, the spill has exacerbated the problem.

In reality, the land is currently subject to a voluntary remediation plan: other liable parties are involved, but the remediation is being dealt with under other legislation (Part 2A of the Environmental Protection Act 1990).

**National regime applied**

The EA initially concluded that regulation 14 of the EDR was triggered because the estuary had been damaged and there were reasonable grounds to believe damage was or would become environmental damage under EDR/ELD. However, the investigation carried out by EA showed that the ELD significant threshold was not met.

At the time, the risk to human health attributable to the spill was not yet known. EA considered that the EDR/ELD would be engaged if there was a significant risk of adverse effects on human health. (See *supra* ‘Facts’).

Further action was taken under the Control of Major Accident Hazards Regulations 1999, transposing the EC Seveso II Directive. To address the historic land contamination, Part 2A of the Environmental Protection Act 1990 was already being applied.

**Main difficulties faced/concerns to establish that the ELD cannot be applied to deal with the case**

The EA concluded that the environmental damage, especially water damage, did not meet the threshold. The requirement to affect an entire surface water body in order to trigger "water damage" under the ELD under English law is relevant in this respect. Even with this high threshold, however, the flow of water out of the harbour and the operator's quick response would still have meant that it was not an ELD case.

**Measures taken - did the measures go below or beyond measures that could have been applied under ELD?**

- **Preventive measures**

EA initially triggered Regulation 14 of the EDR, which provides for the undertaking of preventive measures to prevent further environmental damage. However, EA did not serve a prevention notice due to what it considered swift and appropriate actions on the part of the operator.

The operator locked down all systems very quickly.

Due to the potentially hazardous nature of the incident, the Fire and Rescue Service set up a 300-metre cordon around the site for two days; this was later reduced to the site boundary. A foam blanket was deployed to reduce vaporisation. Roads were closed, and local residents were advised to stay indoors.

The operator cooperated with the competent authorities: EA gave advice and instruction notably to SRM about how the chemical could be contained to limit damage to the environment and human health. Surface water and groundwater were monitored by the operator and EA, and a regular system of reporting was put in place.

The spill was mostly contained on site and the operator recovered most of the solvents, as much of the solvent was spilled on hard standing. Solvent was also pumped from groundwater. [See *infra* ‘Remedial measures’]
The investigation carried out by EA and HSE revealed that SRM had failed to manage the examination and inspection of the tanks at the site. Following the incident, all tanks on site were therefore assessed for integrity, and all tanks located in the damaged bund have been removed from the site.

### Remedial measures

The operator cooperated with EA and relevant local authorities, to recover solvent and monitor the situation. The operator proposed remediation measures and the EA accepted them, subject to certain points of clarification of the remediation strategy.

Clean-up operations have included the recovery of liquid residues and fire suppression foam, jetting of hard standing areas, and the collection of soiled ground.

As to land damage, the neighbouring land impacted, which had historic contamination, was already subject to a voluntary remediation plan and remediation of that historic contamination is ongoing.

### Costs

No information on this subject

### Judicial action

The HSE prosecuted SRM for breaching health and safety regulations, which led to the incident.

Indeed, during the investigation carried out by EA and HSE, it was found that the operator had failed to manage the examination and inspection of the tanks at the site.

SRM pleaded guilty at Brighton Crown Court to breaching Regulation 4 of the Control of Major Accident Hazards Regulations 1999, which states that "every operator shall take all measures necessary to prevent major accidents and limit their consequences to persons and the environment". The Brighton Crown Court rendered its judgment on 20 May 2011, whereby the operator was fined £150,000 and ordered to pay costs of £20,000.

### Level of co-operation between authorities, liable parties, and other stakeholders

The operator acted swiftly and cooperated with the authorities.

### References:

Implementation challenges and obstacles of the Environmental Liability Directive


Experts interviewed:

- Caroline Fielder, Environment Agency
- Valerie Fogleman, Stevens & Bolton LLP
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## Annex 3: Cases of environmental damage treated under national legislation

### River Alz contamination

**Germany**  
**Case treated under national legislation**

### Facts

On 6 March 2012, at a production plant for laundry detergent operated by a chemical company (Clariant) in the Gendorf industrial park (Seveso facility) located in Burgkirchen/District of Altötting (Bavaria), ca. 1,000 kg of fatty amines (‘Genamin LA 302 D’) combined with a chemical catalyst escaped through an exhaust pipe, due to the incorrect positioning of a valve. The combination of the chemicals resulted in a fire upon contact with the air oxygen.

Firefighters intervened and had the fire under control within a very short period of time. However, although ca. 200 kg of fatty amines were retained in a basin, ca. 800 kg were burnt or dissolved in the firefighting water or discharged into the River Alz, as part of the escaped chemicals was drained with the firefighting water through the cooling water sewer tunnel (operated by InfraServ Gendorf) into the river. Such drainage and discharge of fatty amines resulted in damage to water and to protected species and natural habitats, as at least six tons of dead fish were found in the River Alz on a stretch of 15 km: the fish mortality was 100% on that 15-km stretch, this percentage decreasing afterwards.

The competent authority required the operator to carry out remedial measures in the technical installations and at River Alz. A private environmental expert (sworn expert) appointed by the company in charge of the industrial park’s infrastructure (and notably waste water discharge) assisted in the determination of the appropriate remedial measures; he worked closely with the competent authority.

These measures were carried out on a voluntary basis, in close contact with water authorities and Bavarian authorities.

### References

Fire in a chemical plant and release of a dangerous substance into River Alz at Burgkirchen on 06 March 2012

### Notification

The case was notified by InfraServ Gendorf to ZEMA, a central register for incidents on Seveso II sites. The report is available at the following link: [http://www.infosis.uba.de/index.php/de/site/12981/zema/index/16634.html](http://www.infosis.uba.de/index.php/de/site/12981/zema/index/16634.html)

### Competent authority in charge of the case

There were two authorities in charge of the case:
An external expert appointed by the company in charge of the industrial park's infrastructure was also involved and worked closely with the competent authority.

### Determination of the damage/imminent threat

Water and biodiversity damage.

### Persons involved in determining the damage or imminent threat

Environmental damage was determined by the private environmental expert appointed (see *supra* 'Facts' and 'Competent authority in charge of the case').

### Access to information in order to establish the case

No detailed information, but apparently the operator cooperated.

### Duration between notification and establishment of the case

No information on this subject

### Liable party(ies)

The operators were identified.

### National regime applied

The question of which law to apply was reportedly not viewed as an issue as remedial measures were proposed and carried out on a voluntary basis by the operator, without officially distinguishing between primary, complementary and compensatory remediation.

Although the ELD transposing legislation could potentially have been applied given the significant threshold was met, the case was dealt with under the Federal Water Act and the Federal Nature Conservation Act (which regulates compensation for impairment of ecosystems), these special laws being considered by governmental experts as more adequate than the ELD to deal with the issue.

### Measures taken - did the measures go beyond measures that could have been applied under the ELD? Do these provisions fulfil at the same time all requirements of the ELD?

- **Preventive measures**
  - Finding out the reason for the pollution (InfraServ Gendorf has an environmental management system –EMAS– and the site had been inspected a few months before the incident);
  - Suspension of the discharge of cooling water into the river.
  
  Note: although safety measures were in place, it appeared that the detection device failed to detect the fatty amines soon enough to prevent the contamination;
  - Improving safety measures (notably detection measures) for the cooling water system.

- **Remedial measures**
The private expert appointed by the company in charge of the industrial park’s infrastructure assisted in the determination of appropriate remedial measures; he worked closely with the competent authority.

Although the ELD was not applied, measures equivalent to primary remediation measures were established, aiming for baseline condition. A remediation plan was set up for the next two years and remediation is ongoing. Under the applicable legislation, the competent authority controls and observes whether the measures established in the plan are fulfilled, and the plan will be adapted if the measures undertaken do not prove conclusive.

The agreed upon remedial measures include the following (the list is not exhaustive):

- Establishment of monitoring for fish, macrozoobenthos and water plants;
- Creation of new fish ladders, to facilitate fish migration and increase interchange with other parts of the river;
- Creation of safety areas for fish for protection against predators;
- Improving habitat conditions for young fish (e.g. through changes in the river banks, creation of safety areas...).

Fish species impacted by the incident will be reintroduced in the river at a later stage, once the above measures have been carried out. The reintroduction of ‘common’ fish (in particular edible fish, such a pike) should not be a problem; however, regarding affected protected fish species, it might be more complicated as it will be necessary to reintroduce wild fish (e.g. grayling).

The operator is also reportedly planning to undertake compensatory remediation measures.

**Costs**

The operators had insurance policy (which included, but was not limited to, ELD coverage), which covered for the costs.

The costs are estimated at around €3 million for preventive and remedial measures.

Additional costs include compensation for damage related to the loss of fishing rights. The private expert (see *supra* ‘Facts’ and ‘Competent authorities in charge of the case’) carried out the preliminary estimate of the loss of such rights.

**Judicial action**

The public prosecutor reportedly launched a preliminary proceeding against employees of the operating company who were involved in the incident and resulted in an agreement on an alternative to prosecution: a criminal fine was imposed, without the need to be tried before a court.

**Level of co-operation between authorities, liable parties, and other stakeholders**

The operators cooperated with the authorities and other stakeholders. There was apparently intense exchanges and a strong interaction between all stakeholders (notably the operator, the competent authority and the environmental expert appointed by the company responsible for the industrial park’s infrastructure).

It was reported that such an interaction among relevant parties gave the ability to learn from the incident.
and experience, and could be useful to establish preventive measures at the national level, to lower the risk of repetition of such incidents.

How could the ELD be further developed to be more effectively applied?
No information

References:
- BIO Intelligence Service (2009), *Implementation Effectiveness of the Environmental Liability Directive (ELD) and related Financial Issues*, Report for the European Commission (DG Environment);

People interviewed:
- Nils Hellberg, German Insurance Association
- Matthias Weigand, Bavarian state Ministry of Environment and Health
- Martin Wischott, AXA-MATRIX Risk Consultants Germany
16 May 2013

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