



Taxes on Contaminated Soils Landfilling

Synthesis of the answers received after Ana's request (Spanish Basque Country request) (22/02/2009) Updated on May 05, 2009

Austria / Harald Kasamas (22/02/2009)

The Austrian Contaminated Sites policy is mainly based on such funding model on waste taxes (incl. contaminated soil) since 1989. This funding approach created in total more than 850 million EURO over almost 20 years. It is a funding system for assessment and remediation of contaminated sites in Austria. [See attached report in English \(published 2006\) with figures and details on the Austrian system.](#)

Belgium - Flanders / Marijke Cardon (02/03/2009)

In Flanders, everyone who wants to landfill waste coming from soil remediation works on a permitted land fill, can make a claim on zero tariff.

Since 2005 a request for landfill of contaminated soil must be accompanied by a declaration of 'non-cleanable soil'. This declaration will be delivered by a working group with specialists from the contracting world and experts from the centres for soil purification.

This zero tariff for landfill can only be applied when there is an official approval of the OVAM. This approval will give some conditions concerning tonnage, duration, and destination. When these conditions are exceeded a new application must be submitted.

Finland / Anna-Maija Pajukallio (23/02/2009)

We have in Finland at the moment two studies going on which are somewhat related to these issues - one about amending general waste taxation and another on developing complementary schemes for financing remediation projects. Unfortunately both of them will be written in Finnish.

TAXATION OF CONTAMINATED SITES AND FUNDING OF REMEDIATION IN FINLAND

Finnish legislation on the taxation of wastes disposed of at landfill sites was set out in the 1996 Waste Tax Act. At the moment, contaminated soil is not subject to tax and it is not very likely that it will be in the near future either. According to our system money collected from waste taxes can not be earmarked to be used for certain



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purposes - as it is done in Austria (and what I'm envious of). We get money from the state budget (about 3 - 3,5 million euros per year). Money from the Oil Pollution Compensation Fund can also be used for cleaning up sites contaminated by oil (about 2 - 2,5 million euros per year).

Here are some reasons why we do not have tax on contaminated soils at the moment:

- About 1/3 of the money which is used for remediation is public
- Most of the contaminated soil which is placed on landfills is only slightly contaminated and it can be reused in the structures of the landfill and its infrastructure or it can be treated and reused.
- As Finland is rather sparsely inhabited country, we have rather small markets for remediation business and hardly any market for treated soil - so landfilling has to be an option.

Switzerland / Christoph Wenger (23/02/2009)

Switzerland has since 1997 the legal basis for a landfill tax (except demolition waste landfills) for the funding (40%) the remediation of "orphan sites" and urban landfills. Since 2000 we raise every year approx. 20 Mio. Euro on this landfill tax. Based on the revision of the federal law related to the protection of the environment in 2005 and the revised ordinance in 2008 we have since 1.1.2009 a levy on all kind of landfills except those for clean soil as well as a levy on the export of waste for direct deposition or export of waste for treatment of which more than 15% of residue has to be deposited.

The tax is levied by our agency directly by the landfill owners and the waste export companies. Since 2005 we are not only financing the remediation of contaminated sites but also registering, investigation and monitoring of polluted sites. Besides that we are also able to finance 5.3 jobs for levying and redistribution of the money and can use over this some money for expertises. One of the nice by-products of this tax is, that Federal agency has now the possibility of a direct controlling of the single landfills as well as of the transboundary "waste-flow"...

In 2008 the fund spent 20 Mio. Euro, what generated an investment of about 45 Mio. Euro for all kind of measures in the field of contaminated sites. At the moment the parliament is discussing a further revision of the Environmental protection law for the financment of the remediation of 6000 shooting ranges which will finally cost about 600 Mio. Euro until 2025.



United Kingdom / Paul Bardos (22/02/2009)

Waste disposed of to landfill following the cleaning up of contaminated land was been exempt from landfill tax since the inception of the tax in 1996. This was to incentivise the cleaning up of contaminated land. However, the arrangement was also a market distortion in favour of landfilling the waste in question. This was reconsidered in 2008, especially as HMRC recognised that technological advances meant that decontaminating the waste onsite, with the possibility that the resulting material might then be put to a practical use, is often considered to be best practice.

The Government concluded that this incentivisation would be better served by extending land remediation relief (a relief from corporation tax), and has therefore decided to phase out the Exemption. The Government has said that the exemption will be brought to an end by 1 April 2012, to minimise the impact on projects already in train which have been costed to be economically viable on the basis of the exemption being in place.

Landfill tax is charged by weight and there are two rates. Inert or inactive waste is subject to the lower rate. Landfill tax is £40 per tonne rate for any standard rated disposal of active waste made, or treated as made, on or after 1 April 2009. Landfill tax for inert wastes is £2.50 tonne

On the 22nd of April, 2009, the Secretary of State for Environment has announced an increase in Landfill tax in increments of eight pounds a year up to 2013, for encouraging investment in low carbon jobs and energy generation using organic waste.

A consultation on the modernisation of landfill tax legislation is also launched (http://www.hm-treasury.gov.uk/d/Budget2009/bud09_landfill_tax_964.pdf - deadline for answers on the 24 July, 2009).

Links: <http://www.hmrc.gov.uk/si/2008-2669-em.pdf>,
<http://www.hmrc.gov.uk/budget2008/bn82.pdf> and
<http://www.defra.gov.uk/news/2009/090422b.htm>



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Annex 1

6. Contaminated Sites

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6. Remediation of Confirmed Contaminated Sites

With its Act on the Remediation of Contaminated Sites (ALSAG), which came into force on 1 July 1989, Austria was one of the first countries in Europe to take a mandatory and important step towards the targeted identification of suspected contaminated sites and the remediation of contaminated sites. Apart from defining the general framework, the Act primarily created a basis for funding grants for such projects and implementing them. In an international comparison, Austria is one of the leaders in the management of contaminated waste sites given the measures taken to date to comply with the Act on the Remediation of Contaminated Sites.

6.1. From the Suspected Contaminated Site to the Confirmed Contaminated Site

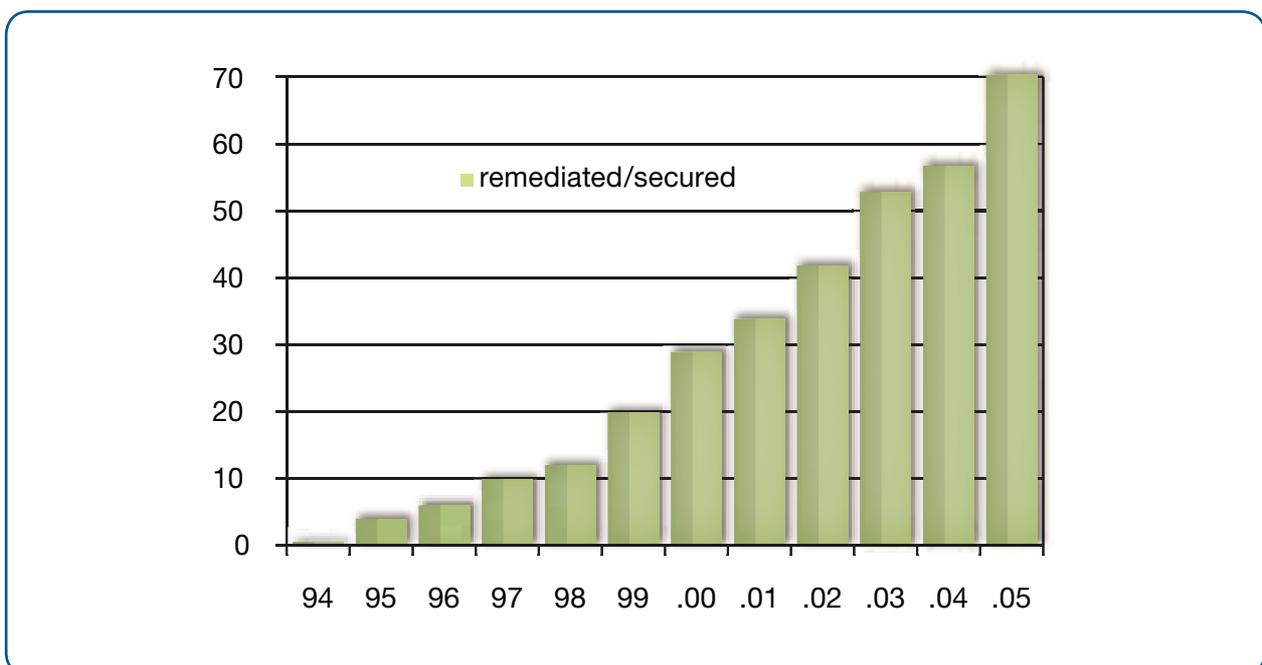
The process of identifying former disposal or industrial sites (suspected contaminated sites) as requiring securing action or remediation in the inventory of contaminated sites starts with the Provincial

Governor reporting a suspected contaminated site. This notification must contain certain minimum information. If a substantial risk (initial appraisal) is suspected, the information is added to the Register of Suspected Contaminated Sites.

The preliminary assessment determines whether there is need for additional investigations which can be financed through ALSAG funds (commissioned by the Federal Ministry of Agriculture, Forestry, Environment and Water Management through the various Federal Provinces). If the investigations and the subsequent risk assessment indicate substantial risks to human health or the environment, the suspected contaminated site is registered as a contaminated site requiring securing action and remediation acc. to the Ordinance on the Register of Contaminated Sites (since 1 July 2004 by announcement in the Austrian Federal Law Gazette and, previously, by an entry in the Register of Contaminated Sites managed in the form of a database by the Federal Environment Agency). A (three-stage) priority classification is used to express the degree of risk and the resultant urgency (of funding) for the required remediation.

If the risk assessment indicates no substantial risks, the area is either deleted from the Register of Suspected Contaminated Sites (the data obtained is retained) or remains in the Register as an area

Figure: Remediated/secured contaminated sites from 1994-2005



under observation (the existing pollutant potential requires observation that can be funded using AL-SAG funds).

Remediated or secured suspected contaminated sites or confirmed contaminated sites are deleted from the Register of Suspected Contaminated Sites and listed as remediated or sealed in the Register of Contaminated Sites.

Overall, it can be assumed that the level of detection of former disposal or industrial sites is very high (currently 41,989 areas have been detected), of which 2,030 areas are currently registered in the Register of Suspected Contaminated Sites.

To date (as per 1 January 2006), 232 areas have been identified as contaminated sites that need securing or contaminated sites requiring remediation in the Register of Contaminated Sites on the basis of investigations and risk assessments conducted. 70 of these have already been secured or remediated. Securing or cleanup measures are already underway for 43 of the remaining 162 contaminated sites.

In addition to the Ordinance on the Register of Contaminated Sites, further information on suspected contaminated sites and confirmed contaminated sites can be found at www.umweltbundesamt.at.

6.2. Contaminated Site Contribution

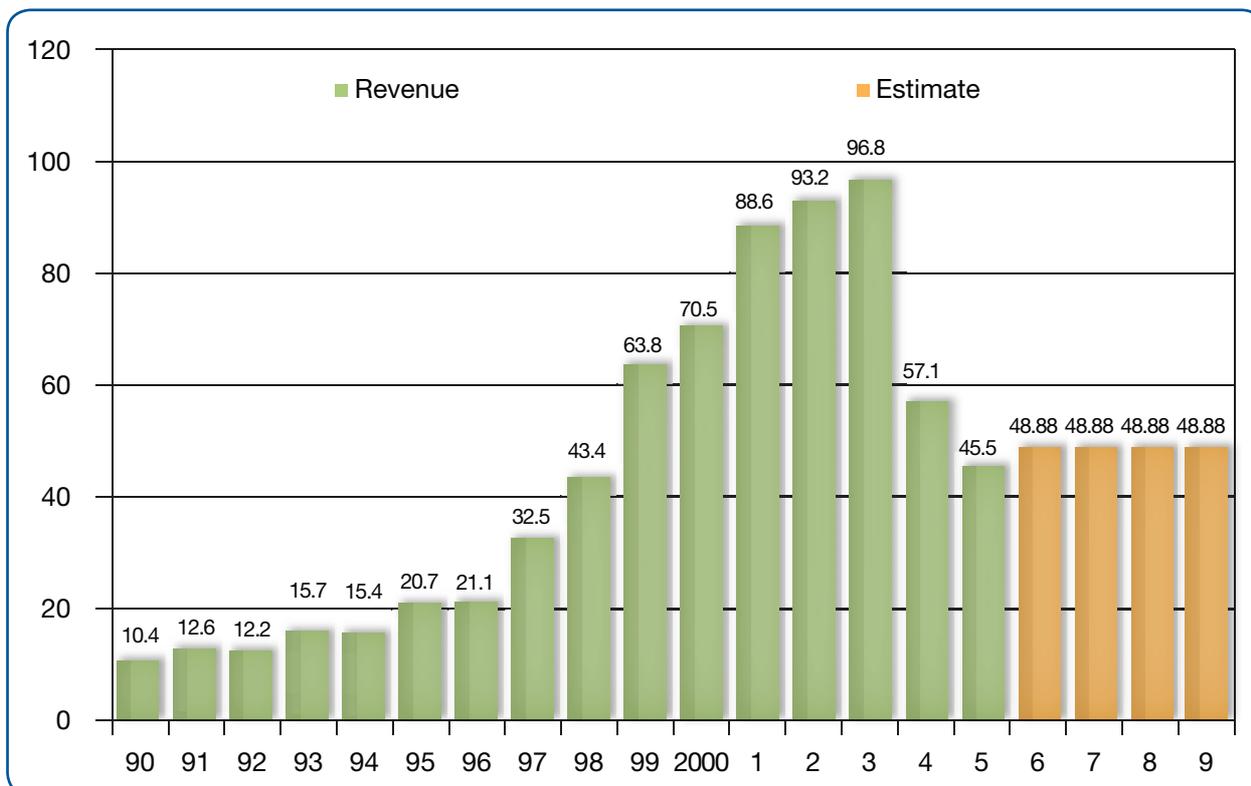
Funds for securing and remediation are raised via an earmarked contribution for contaminated sites that is essentially levied for long-term storage of waste. The total revenue from contributions for contaminated sites currently amounts to some 699 million euros (1990-2005, see table).

The extensive implementation of the targets of the Austrian Landfill Ordinance resulted in a clear reduction in revenue starting in 2004 (as a stronger incentive, a far lower contribution was levied for landfills adapted to the state of the art). An im-

Table: Revenue from contributions for contaminated sites between 1990 and 2005

Revenue from contributions for contaminated sites from 1990 to 2005 in euros					
Year	Revenue (100 %)	Grants and reimbursement of required expenses	%	Supplementary investigations and studies	%
1990	10,365,293.00	9,328,763.70	90	1,036,529.30	10
1991	12,551,956.33	11,296,760.69	90	1,255,195.63	10
1992	12,156,281.24	10,940,653.12	90	1,215,628.12	10
1993	15,677,087.92	12,541,670.33	80	3,135,417.58	20
1994	15,337,710.53	12,270,168.42	80	3,067,542.11	20
1995	20,723,523.53	16,578,818.83	80	4,144,704.70	20
1996	21,107,571.30	17,661,364.69	85	3,446,206.61	15
1997	32,533,833.95	27,653,758.85	85	4,880,075.10	15
1998	43,437,701.98	36,922,046.67	85	6,515,655.31	15
1999	63,814,179.78	54,242,052.81	85	9,572,126.97	15
2000	70,536,080.73	59,955,668.62	85	10,580,412.11	15
2001	88,573,117.45	75,287,149.84	85	13,285,967.61	15
2002	93,181,126.17	79,203,954.33	85	13,977,171.84	15
2003	96,818,377.00	82,291,467.97	85	14,526,909.03	15
2004	57,109,456.81	48,543,038.28	85	8,566,418.53	15
2005	45,539,205.56	38,708,324.73	85	6,830,880.83	15
Total	699,462,503.28	593,425,661.89		106,036,841.39	

Figure: Trend in revenue 1990-2005 and revenue estimates 2006-2009 (in million euros)



provement in the revenue situation will not result until the new contribution system comes into force on 1 January 2006, for the first time also foreseeing (comparatively low) contributions for the incineration and use of waste for the production of fuel products in addition to a moderate increase in contributions for long-term storage of waste.

Table: The contaminated site contribution for longterm storage on state-of-the-art landfills (as of 1 January 2006)

Landfill type	Euros per tonne or part thereof
Excavated soil or demolition and construction waste landfills	8
Residual waste landfills	18
Mass waste landfills or landfills for hazardous waste	26

Table: The contaminated site contribution for long-term storage on landfills that are not state-of-the-art, for backfilling and for storage (as of 1 January 2006):

Waste type	Euros per tonne or part thereof
Excavated soil or demolition and construction waste in accordance with Annex 2 of the Austrian Landfill Ordinance	8
Mineral waste	18
All other waste	87

The contaminated site contribution for the incineration of waste and manufacture of fuel products is 7 euros per tonne or part thereof (as of 1 January 2006).

6.3. Use of Revenue from Contaminated Site Contributions

Basically, 85 % of the revenue from contaminated site contribution is used for securing or remediation (by way of subsidies, reimbursement of required expenses or direct action by the Austrian government) and 15 % of the revenue from contributions is used to conduct supplementary investigations on suspected contaminated sites and confirmed contaminated waste sites.

The above revenue must be seen alongside the following expenditure

(As per: 1 January 2006):

Table: Grants from the Environmental Support Act („Kommunalkredit Public Consulting GmbH“ public-sector loan bank)

Grant pledges	some 628 million euros
Outpayments	some 444 million euros
Investment volume	some 847 million euros

Table: Reimbursement for required expenses and direct action on the part of the Austrian government

Outpayments	some 90 million euros
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Table: Supplementary investigations pursuant to ALSAG:

Outsourced work	some 64 million euros
Outpayments	some 32 million euros

Consequently, a total of around 566 million euros has been paid out.

6.4. Grants for Securing and Remediating Contaminated Sites

To date, subsidies and grants for 181 projects involving some 444 million euros have been paid out for funding securing and remediation measures. In 2005 alone, funds amounting to around 25 million euros have been pledged for new contaminated site cleanup projects.

The grants and subsidies are based on the Austrian Environmental Support Act and the Funding Guidelines for the Remediation or Securing of Contaminated Waste Sites, amended in 2002 to bring in line with the EU Community guidelines on state aid for environmental protection.

Fundamental changes have resulted from the extensive exclusion of subsidies and grants for “contamination-causing” competitors (causers of contaminated sites after 1959 that are not in compliance with the environmental permits or approvals or whose facilities were not operating in accordance with the state of the art of the time).

In addition, grants and subsidies were staggered on the basis of priority classification for the first time.

In the case of non-competitors responsible for contamination:

- Up to 65 % of the costs of priority class I contaminated sites eligible for grants
- Up to 60 % of the costs of priority class II contaminated sites eligible for grants
- Up to 55 % of the costs of priority class III contaminated waste sites eligible for grants

If the one responsible for the contamination cannot be clearly identified or brought to account:

- Up to 95 % of the costs of priority class I contaminated sites of eligible for grants
- Up to 80 % of the costs of priority class II contaminated sites eligible for grants
- Up to 65 % of the costs of priority class III contaminated sites eligible for grants

Please refer to www.public-consulting.at for more detailed information on grants and subsidies.

Table: Supplementary investigations (as per: 1 January 2006)

Federal Province	Investigation projects for suspected contaminated sites		Investigation projects for confirmed contaminated sites	
	currently under-way	Completed	currently under-way	completed
Upper Austria	25	62	6	13
Lower Austria	75	33	4	3
Salzburg	3	17	0	0
Styria	17	15	5	3
Carinthia	12	9	0	10
Burgenland	1	11	0	0
Tyrol	2	8	0	4
Vienna	12	3	1	3
Vorarlberg	2	0	0	0
Total	149	158	16	36

Note: One project may comprise several suspected contaminated sites as well as several confirmed contaminated waste.

6.5. Supplementary Investigations in Case of Suspected and Confirmed Contaminated Sites

Since the Act on the Remediation of Contaminated Sites has been in force, 359 supplementary investigations on risk assessment and priority classification have been commissioned.

165 of these supplementary investigations are currently underway (149 for suspected contaminated sites and 16 for confirmed contaminated sites). 194 of the investigations commissioned to date have already been completed. The results of these investigations will be used to conduct a risk assessment (suspected contaminated sites) and to elaborate a priority classification (confirmed contaminated sites).

6.6. Overall Remediation Requirement

The Federal Environment Agency has conducted a rough estimate of the number of remediation cases anticipated by contaminated site category.

The total number of confirmed contaminated waste sites in need of securing or remediation is assumed to be 2,500. The funds required for securing and remediation are estimated to total 3.7 billion euros (some 1.27 billion euros for 250 former landfills and some 2.4 billion euros for 2,250 former sites).

6.7. Further Development of Contaminated Site Legislation

Even though the existing Act on the Remediation of Contaminated Sites forms the primary basis for the registration of suspected and confirmed contaminated sites and for the funding of required remediation, it also creates the general framework for the handling of associated procedures. However, it does not form an independent procedural act since it refers to applicable, existing legislation.

In addition, this legislation (Waste Management Act, Water Act and Austrian Industrial Code) does not form an ideal decision-making basis specifically for confirmed contaminated sites since it pursues other aims. Such decisions compelled to rely mainly on the protection principle in view of considerations relating to technical and economic aspects. In addition, special regulations would be necessary in order to quickly clarify responsibilities of any obligated party, incl. property owners, and such regulations should also allow direct access to the assets of such obligated party.

In this context, The Federal Ministry of Agriculture, Forestry, Environment and Water Management has already elaborated a well-founded basis, in consultation with renowned experts, and this basis is to be incorporated in planned new legislation. In this process, the development of a model for subsequent occupancy-specific cleanup targets will have to be given considerable attention.

6.8. Remediation study

Occupancy-related assessment of confirmed contaminated sites and other contaminated sites – recommended action for the inference of site-specific remediation targets in consideration of current and planned occupancy

A scientific-technical action framework for the definition of remediation targets that takes into account the respective type of occupancy of a site, among other aspects, is being developed within the framework of a study initiated by the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

The reason for the study is the planned Procedural Act on the Remediation of Contaminated Sites in Austria. A legal basis for a more differentiated infer-

ence of cleanup targets in contaminated site management (“protection principle” to supplement the “precautionary principle”) is to be created within the framework of this ALSAG amendment. These inferred cleanup targets shall effectively take into account the specific conditions of contaminated site management (pollution of soil and groundwater already exists). In concrete terms, the respective site occupancy will also be taken into account in future when inferring site-specific remediation targets. This is associated with a stronger use of (in-situ) technologies that are more sparing of resources and the optimized use of the resources available for contaminated site management.

Experts are of the opinion that efficient use of the resources available for the remediation of contaminated sites in Austria requires a transition from the concept of total remediation to a differentiated, occupancy-specific definition of cleanup targets. They point to the Austrian strategy of sustainable development and the Austrian Standard ÖNORM S 2088-2 that is based on an occupancy-specific approach as the environment-related basis.

Specific implementation of the study recommendations will be discussed on the basis of the elaborated study results in a subsequent Austrian government/Federal Province working group.