



MED-IPPC-NET

Implementing Eco-Future

Network for strengthening and improving the implementation of the European IPPC Directive regarding Integrated Pollution Prevention and Control in the Mediterranean

**MED IPPC-NET:
ANALYSIS OF THE IMPLEMENTATION OF THE
IPPC DIRECTIVE (96/61/CE) IN THE REGION OF
PIEMONTE - ITALY**

**Agenzia Regionale per la Protezione
Ambientale - Arpa Piemonte**



Torino, 18 Marzo 2010



INDEX

0. INTRODUCTION AND BACKGROUND	8
1. LEGISLATIVE ANALYSIS	8
1.1. The implementation of the IPPC Directive in Piedmont - Italy.	8
1.2. The introduction of the Bref in the national and local context.....	9
1.3. The implementation of specific requirements of the IPPC Directive: the integrated approach in according with the article n. 7 of the 61/96 Directive and the requirements related to stricter conditions than those achievable by the use of BAT in according with the article n. 10 of the 61/96 Directive	10
1.4. The modalities to assure the access to information and public participation in the permitting procedure	10
1.5. The strengths and weaknesses identified in the Legislative Analysis.....	11
2. ADMINISTRATIVE ANALYSIS	11
2.1. The permitting procedure: contents of documents to submit, time foreseen for the issuing and institutions involved in the first issue for new and existing installations.....	12
2.2 The permitting procedure in the cases of renewal of the permit and substantial changes	17
2.3 The simplifications in the permitting procedure for particular categories of enterprises and the amount of the public fares that the enterprises must pay for the administrative procedure.....	18
2.4 The environmental assessment carried out during the permitting procedure and the application of the flexibility principle by the Competent Authority	21
Performing the assessment of technical documentation. It takes account of historical data and the presence of remonstrances or non-compliance of previous years. Depending on the situation performing site inspections and in situ measurements.	21
2.5 The number of permits issued by the Competent Authority and the duration of permits	21



2.6	<i>The updating of the permits in the case foreseen by the article 13 of the Directive and the interpretation of the “production capacity” and “per day” mentioned in the annex of the Directive</i>	21
2.7	<i>The planning of the frequency of inspections and the sanctions system</i>	22
2.8	<i>The activities carried out at regional or national level to assure a common approach and to include homogeneous contents in the permits.....</i>	22
2.9	<i>The human resources involved in the permitting procedure.....</i>	23
2.10	<i>The strengths and weaknesses identified in the Administrative Analysis.....</i>	23
3.	CONTROL AND INSPECTION SYSTEM ANALYSIS	24
3.1.	<i>The Competent Authorities designated for the inspection and control procedures in the Region</i>	25
3.2	<i>The amount of the public fares for the inspections.....</i>	25
3.3	<i>The on-site planned and carried out inspections</i>	26
	<i>In 2009 were planned about 250 inspections there were carried out 352 inspections.</i>	26
3.4	<i>The most frequently non-compliances identified</i>	26
3.5.	<i>The strengths and weaknesses identified in the Control and Inspection System analysis</i>	26
4.	CONTENT OF AUTHORIZATIONS ANALYSIS.....	26
4.1.	<i>The references to the BAT included in the permits</i>	28
4.2	<i>The references to the Environmental Management Systems and to timed environmental improvement to achieve included in the permits.....</i>	29
4.3	<i>The Emission Limit Values related to the emissions to air.....</i>	31
4.4	<i>The other requirements and conditions related to the management of the emissions to air</i>	40
4.5	<i>The Emission Limit Values related to the emissions to water</i>	41
4.6	<i>The other requirements and conditions related to the management of the emissions to water</i>	44
4.7	<i>Any other limits imposed in the permit and related to other environmental aspects.....</i>	45
4.8	<i>The requirements connected with the waste management.....</i>	46



4.9 The specific requirements and conditions for the protection of contamination of soil and groundwater	50
4.10 The management requirements for the noise emissions	51
4.11 Requirements and conditions related to the odour emissions and energy consumption.....	52
4.12 The specific requirements and conditions for the management of the abnormal and emergency conditions and the requirements related to the cases of installations exceeding of the Emission Limit Value	54
4.13 Any other requirements included in the permits analyzed	55
4.14 The frequency requested to the installations for sending the periodical communication about the results of the Monitoring Plan to the Competent Authority.....	56
4.15 The number of the pages of the several permits analyzed.....	57
4.16 The strengths and weaknesses identified in the Control and Inspection System analysis	57
ANNEXES.....	59
ANNEX I. Legislative Analysis questionnaire	59
ANNEX II. Administrative Analysis questionnaire	60
ANNEX III. Control and Inspection System Analysis questionnaire.....	62
ANNEX IV. Content of Authorizations Analysis questionnaire.....	63
REFERENCES.....	65
LIST OF INSTITUTIONS INTERVIEWED	66
LIST OF PERMITS ANALYZED.....	67



0. Introduction and background

The Regional Analysis is the result obtained in the first period (May 2009 - February 2010) of the project MED-IPPC-NET. In accordance with the project each partner: Andalusian Institute of Technology (ES); ARPA Sicily (IT); ARPA Piemonte (IT); EUROBIC Toscana SUD (IT); Regional Government for Environment of Andalusia (ES); S. Anna School of Advanced Studies (IT); Scientific Research Centre Bistra Ptuj (SL); Valencian Government; Environmental Centre of Kozani (GR) have collected the info and data foreseen by the Methodological Approach developed and shared by the partners during the first months of the project. This document is subdivided in different chapters who resume and explain how the IPPC Directive has been implemented from four points of view: “Legislative”, “Administrative”, “Control and Inspection System” and “Content of Authorisation”. The data and the info has been collected thanks to documents consultation and interviews with local officers engaged in the permitting procedure of the Competent Authorities of the 7 Regions involved: Andalusia (ES), Comunidad Valenciana (ES), Piemonte (IT), Toscana (IT), Sicilia (IT), Dytiki Makedonia (GR) and Slovenia (whole Member State). The Directive object of the Regional Analysis has been the “old Directive” 61/96/CE while in accordance with the project approved the IPPC sectors analysed in the chapter 4 (Content of Authorisations Analysis) have been:

- 1.1 “Combustion installations with a rated input exceeding 50 MW”;
- 3.5 “Installations for the manufacture of ceramic products”;
- 5.4 “Landfill receiving more than 10 tonnes per day”;

and:

- 2.6 “Installations for surface treatment of metals and plastic materials” in Andalusia, Comunidad Valenciana, Sicilia, Dytiki Makedonia, Slovenia;
- 6.1 “Industrial plants for the production of pulp” in Piemonte and Toscana;

For further information or to download the Regional Analysis of another Region involved in the project please visit www.medippcnet.eu

1. Legislative analysis

The *Legislative Analysis* aims at analyzing how the IPPC Directive has been implemented in the national and regional legislative framework. Each partner has collected some information concerning the legislative acts that implemented the IPPC Directive, the typologies of Competent Authorities involved in the issuing of the Integrated Environmental Authorization, some aspects about BREFs and other information regarding the legislative aspect of the IPPC Directive implementation.

1.1. The implementation of the IPPC Directive in Piedmont - Italy.

Legislative Decree 59/2005 and s.m.i. (changes and additions). It consists of 19 Articles and 6 Annexes. The amendments adopted in time: Legislative Decree



152/2006 (Consolidated "environmental standards"), Presidential Decree 90/2007 (reordering organizations working at the Environment Ministry), Decree Law 180/2007 converted into Law 243/2007 (differing terms from 30/10/2007 to 31/3/2008), Legislative Decree 4/2008 (Amendments to procedure for IEA, EIA, SEA). Ministerial Decree 31/1/2005 (Definition of guidelines for identifying and using best available techniques LGMTD). Ministerial Decree 24/4/2008 (Mode including accounting and rates applicable to permitting procedures and controls and inspections provided for by Legislative Decree no. 59/2005).

Deliberation of the Regional Council July 29, 2002: The Region has confirmed in provinces the competent authority to grant, renewal and review IEA submitted to regional expertise. Deliberation of the Regional Council 22/12/2008 No. 85-10404 adapting national rates provided by DM 24/4/2008. It draws a general decrease in national rates and is intended to bring charges in sizing related to the service actually rendered in permitting procedures for IEA. For permitting shall be charged for the whole system, proportional to the number of emission points and significant pollutants; there are reductions for companies with environmental management system, for particular types of application (electronic, paper. ..). In the case of non-substantive changes there are 3 separate rates for those groups: small, medium and large enterprises. For controls and inspections always done there are different fees for: Intensive rearing of poultry or pigs, for small, medium and large enterprises.

What are the National and/or Local/Regional competent Authority/Authorities in charge of the issue of the Integrated Environmental Authorizations (IEAs)? Article .2 (Definitions) paragraph i) of D.Lgs.59. Authority responsible for IEA facilities under state jurisdiction (Annex V) is the Ministry of Environment (MATT), while for others installations (Annex I) the competent authority is the Region or autonomous province. In Piedmont, Region has delegated this and other tasks to the provinces (Deliberation of the Regional Council 29 July 2002.) In Piedmont, there are 8 provinces.

1.2. The introduction of the Bref in the national and local context

Article 4 paragraph 1 D.Lgs. 59/2005 provides guidance for the identification and use of best available techniques, one or more decrees issued by the Ministers of the Environment (MATT) and for productive activities and health. Ministerial Decree 31/1/2005 (Definition of guidelines for identifying and using best available techniques LGMTD). It was followed by: DM 29/1/2007, DM 1/10/2008. DM Environment 15/2/007 *Establishment of Commission ex D.Lgs. 59/2005 IPPC/IEA - Identification and use of best available techniques*. There is also analysis of industrial sectors from Ispra, although not formally incorporated.

the BREFs have been introduced in the regional and local context with Ministerial Decree 31/1/2005 (Definition of guidelines for identifying and



using best available techniques LGMTD). It was followed by: DM 29/1/2007, DM 1/10/2008.

Role of the horizontal BREFs: how are they used or taken into consideration in the permitting procedures, and how have they eventually been introduced with national/local Guidelines? Are taken into account in permitting procedure. Translated into Italian by APAT (Ispra) and Agencies System the Monitoring Guideline ("Reference Document on the General Principles of Monitoring - July 2003").

1.3. The implementation of specific requirements of the IPPC Directive: the integrated approach in according with the article n. 7 of the 61/96 Directive and the requirements related to stricter conditions than those achievable by the use of BAT in according with the article n. 10 of the 61/96 Directive

The measures adopted to assure the integrated approach for the issue of the IEA are: Article 5, paragraphs 10, 11 D.Lgs. 59/05. CA (competent authority) may convene a Conference of the Services (CdS) which invites the competent authorities in environmental matters. Through CdS or other means acquires the determinations of the administrations involved in the proceedings (the requirements of the Mayor, environmental opinion of ISPRA or ARPA). In Piedmont, to CdS may also be invited other actors: Region, ASL (Local Health), Water Integrated Department Manager, VVF [fire fighters]).

Article 18, paragraph 6 D.Lgs. 59/05. By Decree of President of the Council of Ministers, upon proposal of the Minister of Environment and Protection of Natural resources, in consultation with the Minister of Productive Activities and the Minister of Health, in consultation with the Permanent Conference for Relations between State, Regions and Autonomous Provinces of Trento and Bolzano, shall govern the procedures for authorization in the event that more installations or parts of them are on the same site, operated by the same operator, and subject to integrated environmental permit issued by several a competent authority.

1.4. The modalities to assure the access to information and public participation in the permitting procedure

D.Lgs. 59/2005. Article 5 paragraph 2: IEA submission must contain a non-technical summary for accessibility to public. Art.5 p 6, the competent authority identifies the offices where they deposited the documents and records relating to the proceedings for the purpose of consulting the public. Article 5 p 7, the operator published at his own expense an advertisement for the public in a newspaper provincial or regional edition, or national coverage for projects that fall within the jurisdiction of the State,. Article 7 p 8 stakeholders may submit in writing to the competent authority, observations on the application. It is also envisaged the possibility of participation in conferences of services to citizens representing public interest groups. Article 5 p 15 a copy of the integrated environmental permit, and any subsequent



updates, is available to the public at the deposit office. Article 11 c 2 The competent authority shall make available to the public the data provided by the operator relating to emission controls required by integrated environmental authorization. Article 11 p 8 The results of monitoring of emissions as required under the conditions of integrated environmental and held by the competent authority shall be made available to the public.

1.5. The strengths and weaknesses identified in the Legislative Analysis

Found specific weaknesses of the European directive regard some aspects that would be opportune mainly were specified.

- ◆ In first instance the concept of substantial modification would have to be specified best as it often leaves free space to a judgment of subjective type in the assessment of the significance of the effects on the health and the atmosphere of a date modification.

Strength points of the directive (nearly all the CA):

- ◆ Integrated approach
- ◆ Introduction of the company's monitoring and control plan.

For the CA it has been a moment of reflection and readapting of own activities.

2. Administrative analysis

The *Administrative Analysis* aims at studying -in the several regions involved in the project- the permitting procedure for the granting of the permits.

The permitting procedure has been investigated from several point of view, as for example: the data and technical documents requested by the permitting procedure for the issuing of the permits, the number and the nature of the institutions involved, the differences between the procedure for the first issue and renewal of Authorizations, etc.

Like each Chapter of the Regional Analysis at the end are listed some strengths and weaknesses identified in the administrative procedures analyzed.

Arpa Piedmont has used the permits carried out by the eight CA. They have been read and analyzed by the team component that have filled the questionnaires. They have used as documents reference the paper published on web sites of Piedmont Region, Provinces, ISPRA, European Union where speak about IPPC Directive.



2.1. The permitting procedure: contents of documents to submit, time foreseen for the issuing and institutions involved in the first issue for new and existing installations

Information and documents **generally required by all or at least 6 provinces out of 8** (though with different details): IEA demand, technical report that includes general information of the complex, past acts of authorization, territorial-urban setting, description of the production cycle (total and phase), integrated analysis of environmental, including situations in terms of Bref, non-technical summary, environmental analysis that includes input and output (substances, materials and supplies, water supply, waste water, storage/waste management, atmosphere emissions, noise, energy), plans (maps, Excerpt from Municipal zoning, floor plans of the complex, the points of supply of water and waste water networks, storage areas of raw materials, substances and wastes, emission points to atmosphere and acoustics zoning), cards or forms specific to farms, monitoring plan and controls. Information and documents **requested from time to time by certain provinces**: the ongoing remediation, decommissioning and environmental restoration of site, industries at risk accident, environmental certifications, MUD [Waste model], fire prevention certificate, earthquake reports, specific plans, large areas environmental studies. **Only in some provinces** additional cards specific for particular environmental aspects (eg. use of transformers with PCBs). IEA requires that a company must submit a number of documents that is so variable every province:

Documents requested for IEA	CA1	CA2	CA3	CA4	CA5	CA6	CA7	CA8
Documents number	37	48	30	35	44	43	40	54

The contents of the technical documents requested in the permitting procedure are:

In the general report and the attached sheets are generally required (with different details depending on the province) is so discursive that filling tables: **General**: Overview and analysis of the production cycle and for each step (input and output), Environmental Integrated analysis, the position of the complex than Bref and BAT and environmental performance evaluation, monitoring and checks plan (payable by the operator and institution out to check on their conditions and improve environmental performance of the IEA). **Environmental aspects**: substances, raw materials, products and wastes (type and chemical and physical properties, mass balance, method of storage, supply and logistics handling, methods of management-recovery-disposal of waste), water (supply, use worksheet, water balance, recycling and recovery systems, pollutants and hazardous substances emitted, treatment mode, rainwater assessment, monitoring of emissions and news about water body); Air: emission points, types, quantities and source of pollutants, methods and efficiency of pollution abatement, handling solvents, sometimes diffuse emissions analysis); Noise (acoustic classification, any excess of limits, the recovery plan and mitigation measures, sensitive receptors); Energy (electric and thermal energy balance overall and staged, fuels balance and estimation



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of direct and indirect emissions of greenhouse gases); Accidents (activities subject to D.Lgs.334/99, dangerous substances and methods of storage, security arrangements); Environmental Remediation (presence of soil pollution and measures to clean). This information is generally added insights from time to time provided by the individual provinces.





Sheet Energy	Production: Plant / phase of device code and description from fuel used, en. heat (thermal combustion (kW) Energy Produced (MWh) sold to third share of energy produced (MWh)), en. electricity (electric power rating (kVA) energy produced (MWh) sold to third share of energy produced (MWh)) Consumption: Stage / significant activities or groups of them Description Thermal Energy consumed (MWh) electricity consumed (MWh) Product main phase specific heat consumption (kWh / unit) specific electrical consumption (kWh / unit) budget estimate of fuel and greenhouse gas emissions (direct emissions and indirect) Energy balance summary	8
1:10000 topographic map	map	8
Planimetry water supply points and networks of water discharges	map	8
Areas of waste management site plan - location of storage tanks or containers moving raw materials	map	8
Planimetry emission points to atmosphere	map	8
Sheet "industrial accident"	Presence of D.Lgs.334/99 activities subject to, dangerous substances held in factory (Substance / Preparation Classification / Symbol / R-phrases, and Quantity Max in the company-mode storage tanks, drums etc..) Storage Tanks substances dangerous (type, substance, Volume [m3], Roof (fixed, float, etc..) containment basin capacity [m3], sealing containment basin (material), Lock / Alarm overflow, venting (free, collective) , abatement equipment dedicated protection measures to be flammable atmospheres, the presence of double bottom, the color of the tank, corrosion prevention measures, if any, dedicated fire protection systems, other protective measures applied or information deemed useful, Presence and type of loading and unloading area (cordolatura, sealing the bottom, etc.))	7
Excerpt municipal regulatory plan	map	7
Zoning acoustic Map	map	7
Livestock and livestock manure spill	specific sheet	6
Land register map	map	6
Floor plan for the facility-wide	map	6
Plan for monitoring and control	reference to individual files on each environmental matrix. Other parameters and plant engineering management and follow-up directly impacts on environmental media (eg loss of pressure, temperature, controls on raw materials, etc..) Can be presented in this statement. The elements and assessment (general principles, timing, sampling methods, sampling and analysis procedures for recording and processing of acquired data, etc.). The manager will refer in the drafting of the Plan are contained in the Guidelines on monitoring systems, Annex II to the DMA January 31, 2005	5
Sheet "Improvement plan"	Description, types, procedures for the steps planned to improve plant and management	5
Technical report on the systems of partial or final effluent treatment	Description, type, mode	5
Possible environmental certifications (ISO 14000 and / O EMAS)	Description, documents	5
Sheet "Environmental Remediation"	specific sheet	4
Sheet "Disposal Site and Environmental Restoration"	specific sheet	4
"Discharge hazardous and non-hazardous wastes"	specific sheet	4
Waste Treatment"	specific sheet	4
Recovering non-hazardous waste in simplified procedure	specific sheet	4
Hazardous waste recovery in simplified procedure	specific sheet	4
Spreading sludge	specific sheet	4
Characteristics of the aquifer	special report	4
Geological and geomorphological framework	special report	4
Documentation on RIR	report on industrial accidents	4
Storage Waste contract basis	specific sheet	3
Waste Incineration	specific sheet	3
Collecting waste oil	specific sheet	3
Land use	special report	3
presence of contaminated sites	special report	3
Certified fire prevention	Fire Fighters Certificate	3
Regeneration oils	specific sheet	2
Burning waste oil	specific sheet	2
Sketch catchment water	graph	2



Planimetry noise sources	map	2
Hydrographic network	map	2
wells, aqueducts, springs	map	2
sewer and water treatment systems	special report	2
hydrogeological study	special report	2
Location site in relation to regional QA	special report	2
classification climate	special report	2
Traffic	special report	2
Photographic documentation	photo	2
EMF Electro Magnetic Fields	specific sheet	1
Communication on use transformers with PCBs	specific sheet	1
Waste treatment at wastewater treatment plants	specific sheet	1
transboundary waste transport	specific sheet	1
plan potential centers of danger (for rehabilitation)	map	1
framework flora, fauna and landscape	special report	1
location of the site in relation to any regional plans	special report	1
Certificate Registration Chamber of Commerce	certificate	1
MUD Unique model environmental statement	document	1
Result EIA process	document	1
seismic compliance report	special report	1

The permitting procedure for the first issue for new and existing installations in term of technical and administrative documents to submit is the same in both cases. General Report and data sheets attached. Technical report including general information of the complex, past acts of authorization, territorial-urban setting, description of the production cycle (total and for phase), environmental integrated analysis, including situations in terms of Bref, non-technical summary, environmental analysis including input and output (substances, materials and supplies, water supply, waste water, storage/waste management, air emissions, noise, energy), plans (maps, Excerpt PRGC, floor plans of the complex, the supply points of water and waste water networks, storage areas of raw materials, substances and waste, atmosphere emission points and zoning acoustics), cards or forms for specific farms, monitoring plan and controls.



CALENDAR (A.C.)

DEMAND PRESENTATION + DOCUMENTATION (Porposer)

COMMUNICATION START PROCEDURE (C.A. Within 30 days)

ANNOUNCEMENT ON DAILY NEWSPAPER (Within 15 days, by the proposer)

CONVOCAION CONFERENCES SERVICES (A.C.)

suspensions additions and WITHIN 150 DAYS OF REQUEST

CONCLUSION ITER

D. Lgs. 59/2005 Article 5 p 12 the authority shall issue or deny IEA within 150 days of submission of demand.

In Piedmont the institutions/organisations involved in the permitting procedure (almost always there is a CdS [Conference Services]) are 8 at least:



Institution name	Action/Participation	Role/opinion is binding
Municipality	Participation in CdS	Yes
Province	Competent Authority	Yes
Region	Participation in CdS	Yes, but only for some sectors
Local Health Authority	Participation in CdS	No
ARPA	Participation in CdS (Inspection body too)	No
Water Integrated Department Manager	Participation in CdS	No
Fire Fighters	Participation in CdS	No
Bearers of collective interest (environmental associations, ...)	Participation in CdS	No

2.2 The permitting procedure in the cases of renewal of the permit and substantial changes

D.Lgs. 59/2005 Article 10 p 2 must be made a new demand, but the documentation requirements may be reduced and the only parts of the plant concerned. CA can do any review of prescriptions.

Time previewed for the issuing in the case of “substantial changes”: D. Lgs. 59/2005 Article 5 p 12 the authority shall issue or deny IEA within 150 days of submission of demand. Substantial changes. Definition from Italian Law (D.Lgs. 59/2005): a change in operation which, according to a reasoned opinion of the competent authority may have significant negative effects to humans or the environment. In particular, for each activity for which Annex I shows the threshold values, is substantial a change that would result in an increase in the value of the magnitude, the threshold question, equal to or greater than the value of that threshold . It's not clear what means, there will be a new demand and 8 CA must decide (without criteria) if it is Substantial or Non substantial.

Permitting procedure for renewal of Authorizations in term of technical and administrative documents to submit is: D. Lgs. 59/2005 Article 9. Six months before the deadline, the operator sends to the competent authority a demand for renewal, accompanied by a report containing an update of information about the facility.

What is permitting procedure for renewal of Authorizations in term of time previewed for the issuing? D. Lgs. 59/2005 Article 9 p 1, the competent authority renews IEA within 150 days of submission of the demand.



2.3 The simplifications in the permitting procedure for particular categories of enterprises and the amount of the public fares that the enterprises must pay for the administrative procedure

D. Lgs. 59/2005. Article 5 p 5 The information and descriptions supplied in a safety report, on the risk of accident, or according to UNI EN ISO 14001, or data products for EMAS registered sites, can be used for the application. Such information may be included in the application or attached.

The public fares that the enterprises must pay for the cost of the administrative procedure are:

Ministerial Decree 24/4/2008 and deliberation of the Regional Council 22/12/2008 No. 85-10404. The calculation of is carried out by considering different components: air pollution (significantly emissions [200 to 49,000 E]) and water (hazardous substances, contaminated rainwater [50 - 30000 E]), waste ([0 - 5000 E], there is a forfait for facilities that handle their own waste [150 or 300 E]), other environmental components (climate noise, quantitative water resource protection, electromagnetic fields, smells, homeland security, environmental restoration) cost of acquiring demand (0.7 x national figures ranging from 2500 to 15000 Euro). Discounts for ISO 14001 or EMAS 500-1750 E, reductions for second or specific computerized applications from 250 to 15,000 E.

Component		DM 24/4/2008	DGR85-10404
<i>Permitting procedure new and substantial changes (sum of various components)</i>			
Plant type		2500 – 15000 E	The rate is calculated with reference to the entire system object of the IEA demand, independently from the fact that it is constituted of one or more activity IPPC and not like summary of its application to the single activities compose that it.
Air quality	Based on emission point number and significant pollutants number (there is an explanatory chart)	From 200 to 49000 E	The cost is calculated considering <u>significant points</u> of emission and significant pollutants. (Use PMC or Bref or LGMTD)
Water quality	Based on emission point number and significant pollutants number (there is an explanatory chart)	From 50 to 30000 E	The cost is calculated considering <u>significant points</u> of emission and significant pollutants.



			(Use PMC or Bref or LGMTD)
Waste	Non hazardous Hazardous (amount of)	From 0 to 3000 E From 0 to 5000 E	Must be considered the waste amount in according with the daily maximum amount contemplated on drawing board or must be considered the daily average amount of waste get in or get out to the plant. <u>Forfeit</u> for facilities that handle their own waste <u>300 E</u>
Other environmental components (climate noise, quantitative water resource protection, electromagnetic fields, smells, homeland security, environmental restoration)	Applied only to the necessary component to be considered (there is an explanatory chart)	From 700 to 5600 E	Use national DM
Reduction for presence of environmental management system	ISO 14001 EMAS	From 500 to 5000 E From 1000 to 8000 E	<u>Reduction of DM fares.</u> IF from DM fare is 2500 E, for ISO 14001 -750E , for EMAS -1500E .
Reduction for second or specific computerized applications	According to specifications provided by CA With a computerized copy	From 1000 to 2000 E From 500 to 1000 E	<u>Reduction of DM fares.</u> IF from DM fare is <u>2500 E</u> , with a computerized copy - 500E , for according to specifications provided by CA -100 E , for both -1500E .
			The obtained sum is multiplied for 0,7 (ulterior reduction)
<i>Permitting procedure for renewal (sum of various components)</i>			
Plant type		1250 – 750000 E	
Air quality	Based on emission point number and significant pollutants number (there is an explanatory chart)	From 100 to 24500 E	
Water quality	Based on emission point number and significant pollutants number (there is an explanatory chart)	From 25 to 15000 E	



Waste	Non hazardous Hazardous (amount of)	From 0 to 1500 E From 0 to 2500 E	Same Forfeit for facilities that handle their own waste 150 E
Other environmental components (climate noise, quantitative water resource protection, electromagnetic fields, smells, homeland security, environmental restoration)	Applied only to the necessary component to be considered (there is an explanatory chart)	From 350 to 2800 E	
Reduction for presence of environmental management system	ISO 14001 EMAS	From 250 to 2500 E From 500 to 4000 E	
Reduction for second or specific computerized applications	According to specifications provided by CA With a computerized copy	From 500 to 1000 E From 250 to 500 E	Reduction of DM fares. IF from DM fare is <u>1250 E</u> , for ISO 14001 -375E , for EMAS -750E .
			The obtained sum is multiplied for 0,7 (ulterior reduction)
<i>Permitting procedure non substantial changes</i>			
		2000 E	Small enterprise (enterprise that occupies less than 50 persons and realizes a annual turnover or one annual total budgetary not advanced to 10 million euro): TAg = 180 E Medium enterprise (enterprise that occupies less than 250 persons, whose annual turnover does not exceed 50 million euro or whose annual total budgetary does not exceed 43 million euro): TAg = 240 E Great enterprise (enterprise that occupies greater or equal a number of persons to 250 or which advanced or equal annual turnover or to 50 million euros or the whose annual or advanced or equal total budgetary to 43 million euro): TAg = 300 E



2.4 The environmental assessment carried out during the permitting procedure and the application of the flexibility principle by the Competent Authority

Performing the assessment of technical documentation. It takes account of historical data and the presence of complaints or non-compliance of previous years. Depending on the situation performing site inspections and in situ measurements. Every items are studied and expanded by expert executive of provinces, helped by Arpa's experts. In according with Bref or T.U. and area knowledge they prepare the prescriptions to discuss in the official meeting with all actors involved in the permitting procedure where will be adopted the best prescriptions that the environment and the economic sustainability required.

2.5 The number of permits issued by the Competent Authority and the duration of permits

540 permits issued. Duration of permits 5 years; 8 years for EMAS registered plants; 7 years for ISO 14001 registered plants

2.6 The updating of the permits in the case foreseen by the article 13 of the Directive and the interpretation of the "production capacity" and "per day" mentioned in the annex of the Directive

Ministerial Circular 13/07/2004: Interpretation on integrated pollution prevention and reduction, referred to Legislative Decree 4 August 1999, No 372, with particular reference to Annex I) that, for certain categories of plants, set out to assess the actual production in a given period of time. Primary endpoint: production capacity should mean capacity connected with the maximum potential pollution of the plant.

The Competent Authority considers the specification of the production "per day" related to the total number of "workable days" (e.g. 220 days) or to the effective number of days worked. "workable days" is used to.

Definition of capacity. In general the thresholds that determine the scope of Legislative Decree No 372, August 4, 1999 are expressed in terms of production capacity. Only in cases where the environmental impact of an asset class can not be even roughly estimated based on production capacity, due to the variability of processes used in the asset class itself, or where the discontinuity Seasonal is intrinsic to the production thresholds are not provided (eg. chemical plants) or are identified thresholds for average production levels, rather than actual production capacity (eg. plant foods and milk). Directive 96/61/EC and the Legislative Decree No 372, 4 August 1999, however, does not specify the definition of capacity. In regard to production capacity should mean connection with the maximum pollution potential of the plant.

In all cases where the activity is characterized by discontinuities in production processes or by sequential processes, more productive lines of different capacities are not used continuously in contemporary and several products, consider the



following assumptions apply: for the period of use: generally assume that the plant can be operated continuously for 24 hours a day. Therefore, the capacity will be calculated by multiplying the hourly design capacity for 24 hours. This definition shall not apply in cases where plants can not be conducted to technological limitations in that way, or in cases where there is established a legal limit to the capacity and potential of the plant: the operator demonstrates that the plant never exceeds the limits, taking care to monitor and transmit data to the competent authority (at least once a year); the competent authority carries out regular checks of not exceeding the limit; the character of discontinuity of processes: we consider the cycle which corresponds to increased production on a daily basis taking into account joint production cycle and the time per cycle; the number of lines: one considers the simultaneous use of all lines and equipment installed, since there are no technological constraints that prevent the plant run in this way; for the specific ability: we consider the operation of the equipment or line to the data plate; for multiple products: one considers the processing of the product that determines the greatest contribution to the attainment of the threshold, subject to the assumptions mentioned in previous for sequencing: for productions involving only stages in series is considered as the potential output of the last stage of the process.

2.7 The planning of the frequency of inspections and the sanctions system

There are no clear criteria or official documents. Each CA take autonomous decisions. In Piedmont the controls and inspections requested from CA to Arpa vary greatly: From: 1 in IEA duration (not more defined) To: during IEA 2 visits, 2 sampling and analysis of wastewater and 1 or 2 sampling and analysis of atmospheric emissions (are also defined the sampling points [significant] and the parameters).

The system and procedures related to the legal and administrative sanctions: D. Lgs. 59/2005 Article 16. Penalties for: systems that make business without IEA or after it has been suspended or revoked, unless they observe the requirements of the IEA, if continuing to practice after the closing plant order. Administrative sanctions: If the operator does not submit to CA communication start implementing IEA, and if the operator does not submit to CA and municipalities concerned about the emissions measurements (autocontrol), and if the manager during the permitting procedure, does not transmit in due time the supplementary documentation.

2.8 The activities carried out at regional or national level to assure a common approach and to include homogeneous contents in the permits

Don't have been carried out activities at regional or national level to assure a common approach and to include homogeneous contents in the permits.

At national level there are the ISPRA guidelines. But they are not binding.



In Piedmont, there have not been initiatives continue as preparatory courses, etc.. In different years, there have been several conferences on both the state of the art, both on initial experience gained.

2.9 The human resources involved in the permitting procedure

Total about 80 people. The split-level in different provinces is very inhomogeneous.

2.10 The strengths and weaknesses identified in the Administrative Analysis

In the application of IPPC in some Province various difficulties have been found. That but they do not constitute however a point of weakness of the Directive, how much rather criticalities derived from the reception of the same one.

Between the most common (nearly all the CA):

- ◆ The norm has involved an increase in terms of workload extremely heavy and difficult to manage with the staff, already reduced, of Public Administration; deep the available ones have not rendered possible to entrust itself for every practical one to external advisers, but only for the more complex permitting procedures. Also the Agencies been involved in the procedures, which above all the Provincial Departments of ARPA, have had difficulty to manage the additional workload that has been come to create, delaying the emanation of the opinions.
- ◆ Care the best techniques available, the emanation of the national guidelines, thus expanded in the time and however not still completed for every IPPC category, it has not supplied the adapted technical support.
- ◆ In some cases the companies were not able on the innovations introduced from the application of I.P.P.C., introducing in demand a poor documentation, that it has needed remarkable integrations.
- ◆ Every Province in aim to comply at best with the application of norm IPPC, before the emanation of the D.Lgs. 59/05 (enforced D.Lgs 372/99) have emanated a calendar for the presentation of the requests to the existing systems and predisposed own templates for writing the technical documentation.
- ◆ After the entrance of D.Lgs. 59/2005, CAs have emanated a second calendar and see again the templates.
- ◆ In some cases, in order to further reduce the times of permitting procedure, some Province has chosen, for some practical, not to convene the conference of the services, and to acquire the opinions of ARPA and Common, thus as previewed from the modifications brought from D. Lgs. 4/2008 to the cc. 10 and 11, of art. the 5, D. Lgs. 59/2005.
- ◆ The increase of fares for permitting and for the CA activities of control turns out to be enough meaningful for the operating companies.



Difficulties only represented from some CA:

- ◆ The permitting procedures for IEAs release already complicated from the multiple aspects that concur in the total appraisal from the environmental point of view in a site, have been further burdened from the various types of industrial activities in some province; such heterogeneity has rendered every procedure unique, without possibility to carry out comparisons between analogous systems or to generalize on eventual common aspects, above all in that phase that previews to compare with the best techniques available.
- ◆ Industrial truth IPPC of some territories sees systems on one side many complexes that have had a permitting procedure extremely articulated; from the other it altogether sees a medium-small companies situation and that, therefore, to the aims of the competitiveness on the market, it needs of an elevated flexibility; such characteristic door the companies to evolve themselves in continuation, and to already modify own workings or systems during the permitting procedure, further slowing down the terms of the procedure.

Strength points of the directive (nearly all the CA):

- ◆ The data collected from the activities lead from the companies in performance of the prescription of IEA constitute an important data bank of information, often not equally detailed in the BRef or in the national guidelines.
- ◆ The application has represented an important moment of reflection for the companies in the planning of future participations of environmental improvement.

3. Control and Inspection System analysis

The objective of the “*Control and Inspection System Analysis*” is to analyze how that System has been implemented in the regions involved. For this purpose, each partner collected some information about the nature and the role of the Competent Authorities that carry out the inspections and other relevant aspects about controls and inspections that should be carried out in the firms that obtained the permit.

Data and reports of inspections are collected by Arpa in according with the article 11 sub article 3 D.Lgs 59/2005 that checks the respects of time of automonitoring, the respects of ELV, the use of corrects analytical methods, the compliance to the prescriptions. Every permit foresee a periodicity to send to Arpa the automonitoring reports and the annual report about their activity and improvement in the implementation and the adaptation to the requirements of IEA.

Arpa can make extraordinary controls and inspections, if they are requested by CA or it believe that it be necessary (eg. After accidents, complaints, ...).



3.1. The Competent Authorities designated for the inspection and control procedures in the Region

D.Lgs. 59/05 art. 11 p. 3 The Agency for Environment Protection and Technical Services (ISPRA), for facilities under state jurisdiction, or the regional and provincial environmental protection agencies, in other cases, ensure, as provided in the permit and planned to Article 7, paragraph 6, and charges of the provider: a) compliance with the conditions of integrated environmental, b) the regularity of inspections by the operator, with particular reference to the legality of measures and devices pollution prevention and compliance with the emission values, c) the operator has fulfilled that has informed the competent authorities regularly and in case of incidents or accidents that affect significantly environment, early results of the monitoring of emissions from its facility. p.4 Subject to the control measures referred to in paragraph 3, the competent authority, within the available funds in its financial statements for the purpose, may provide routine inspections on facilities authorized under this Decree. In some cases it can also be integrated water services (for wastewater discharge into public sewer and treatment plant outside). A total of 3-4.

Inspections and controls of state competence IEAs may be demanded from ISPRA to ARPA.

Regional and provincial environmental protection agencies (ARPA and APPA) make the same job on non state competence IEAs: APPA are in the autonomous Provinces of Trento e Bolzano, ARPA in the other italic Regions.

In Piedmont (and in many other Regions) ARPA have different structures and is divided in Provincial Departments and Central structures.

3.2 The amount of the public fares for the inspections

Ministerial Decree 24/4/2008 and Deliberation of the Regional Council 22/12/2008 No. 85-10404. Annex IV, the calculation of the DM is performed in two ways for the activities to be conducted in each control: o 1,500 Euros or (if lower) with calculations related to several components: air pollution (significant emissions and number of pollutants) and water (significant polluting emissions and number of pollutants), waste (hazardous, non-hazardous), other environmental components (climate noise, quantitative water resource protection, electromagnetic fields, smells, homeland security, environmental restoration). DM Annex V for activities related to sampling and analysis there is a rate table divided to search the array parameters, air and water and related analytical methods. In Deliberation of the Regional Council 22/12/2008 No. 85-10404 is provided a fixed amount of 500 Euro per plant for the intensive rearing of poultry or pigs, fixed amount respectively to 750, 1200, 2400 Euro for small, medium and large (if the calculations performed according to the National DM lead to an amount less than or equal to 2400 Euro). The plant is similar to that provided by the national DM: activities to be conducted in all and activities related to monitoring and sampling and analysis.



There are some reduction of these fares for particular categories of enterprises (e.g.: Small companies, or companies certified according to ISO 14001 or registered in EMAS) In Ministerial Decree 24/4/2008 no reductions. In Deliberation of the Regional Council 22/12/2008 No. 85-10404 there are reductions for livestock farms and small medium and large companies (see question 3).

3.3 The on-site planned and carried out inspections

In 2009 were planned about 250 inspections there were carried out 352 inspections.

3.4 The most frequently non-compliances identified

- X Non compliance ELVs
- X Non regular data transmission
- X Non compliance with the requirements contained in IEA
 - Dissimilarity from the management of measuring instruments (incorrect positioning, operation, calibration, maintenance of instruments)
 - Other (specify) _____

3.5. The strengths and weaknesses identified in the Control and Inspection System analysis

Strengths: punctual and systematic control all environmental components; a single permit is better than more permits because is possible harmonize all environmental actions; easier find environmental data and information, good level of automonitoring

Weaknesses: difficult to interpret and understand the rules; different limit for same kind of plants in functioning of Competent Authorities; inhomogeneous documents of application forms between different Competent Authorities; no much computerized procedures for send and assess automonitoring, no much inspectors

4. Content of Authorizations analysis

The “*Content of Authorizations Analysis*” is the “core” of the entire Analysis. The results have been obtained by the consultation of the content of a sample of permits for the four sector selected for the project. The purpose is to identify the most important existing differences in terms for example of Emission Limit Values and environmental requirements in the permits issued in the regions involved in the project.



The analysis of the authorizations focalized the attention on all the content of the document in order to obtain comparable data and information.

Arpa Piedmont has used the permits carried out by the eight CA. They have been read and analyzed by the team component that have filled the questionnaires. They have used as documents reference the paper published on web sites of Piedmont Region, Provinces, ISPRA, European Union where speak about IPPC Directive. The results of questionnaires has been elaborated by the whole of project team. The methodology used has considered the tables where collect the frequency of answers and has used a qualitative approach where the information didn't be included in the tables where those were relevant.

SECTOR	No. of installations affected by IPPC in the region	Total No. of permits issued in the region	No. Of IPPC permits that will be analysed in MED-IPPC-NET
Combustion plants	27	27	19
Landfills	28	28	21
Ceramics	27	27	24
Surface treatment or paper production	18	18	15

No. of IPPC permits that will be analysed in MED-IPPC-NET				
	1.1	3.5	5.4	6.1
Competent Authority n.1	1		4	1
Competent Authority n.2		4	1	
Competent Authority n.3		2	2	
Competent Authority n.4	6	6	3	5
Competent Authority n.5	2		3	2
Competent Authority n.6	8	7	8	6
Competent Authority n.7	1	1		1
Competent Authority n.8	1	4		
TOTAL	19	24	21	15



4.1. The references to the BAT included in the permits

Best Available Techniques (BAT)					
	1.1	6.1	3.5	5.4	Total
IPPC Permit does not include the adoption of BATs	13	10	2		25
IPPC Permit includes BATs but does not include specific requirements					0
IPPC Permit states that it has included BATs for environmental purposes					
IPPC Permit includes the adoption of BATs with a deadline to be implemented	7	6	22	19	54
Others (please specify)					0

6.1. Pulp and Paper Industry

In Bref are examined a great number of technical and executive solutions, candidates to become Bat themselves. This list can't be exhaustive, as claimed in Bref. Is important to emphasize that the listed BAT don't have to be considered binding.

The choice of the techniques, as in number so in quality, is responsibility of the company, that it will have instead to guarantee the final objective of protection of the atmosphere.

Don't include BAT in Environmental Integrated Permit (E.I.P.) 50%

Use BAT of plant-engineering and executive type the last 50%

BAT used in process control:

- Reduction energy consumption, improvement energy efficiency, cogeneration;
- Waste reduction, raise fibers recovery;
- Mapping water nets to eliminate seepage and water leak;
- Arrangement meteoric water plan;
- Monitoring noise emission;
- Increase waste recovery;
- Reduction pollutants in process.

Bat used in executive process:

- Arrangement training courses for workforce for a corrected environmental management
- Arrangement procedure for natural resources management.

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1.1. Combustion plants



In Italy Bref for be considered binding has to have adopted by ministerial decree like a guide line (G.L.) Bref isn't adopted by L.G. then in according with general matter of the General Guide Line the technique choice, in number or in quality, is in company responsibility, that must guarantee the final goal of environmental protection having to reference the national norm in vigor.

All permits analyzed make reference to the “Bref large combustion plant and monitoring and them impose the emission continuous monitoring.

75% of permits declare that the plants have adjusted yet to the rules

12% permits prescribes arrangements like regeneration oil of oil compressor units, breaking down system of NOx with water injection into the turbine.

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5.4. Landfills

The arrangement in D.Lgs 36/2003 is the BAT adoption.

All permits respond with the established rules

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3.5. Ceramic Industry

The G.L. has been adopted with ministerial decree, foresees BAT for reduction energy consumption, for gas emission treatment, water consumption reduction and wastewater, waste reduction and waste treatment

All permits analyzed make reference on G.L. principles.

4.2 The references to the Environmental Management Systems and to timed environmental improvement to achieve included in the permits

Environmental Management System					
	1.1	6.1	3.5	5.4	Total
IPPC Permit does not include the adoption of a certified Environmental Management System	12	14	22	16	64
IPPC Permit includes the adoption of an Environmental Management System without deadline to be implemented					0
IPPC Permit includes the adoption of an Environmental Management System with deadline to be implemented					0
The installation has already an implemented and/or certified Environmental Management System	7	1	2	5	15
Others (please specify)					0

Environmental improvements



		1.1	6.1	3.5	5.4	Total
IPPC Permit does not include the establishment of environmental improvements		6	9	4	12	31
IPPC Permit describes the establishment of environmental improvements with deadline	With indication of Environmental Performance indicators					0
	With indication of specific technology and/or process modification	6	4	13	5	28
IPPC Permit describes the establishment of environmental improvements without deadline	With indication of Environmental Performance indicators					0
	With indication of specific technology and/or process modification	1	2		2	5
No specified		3	3	5	4	15

6.1. Pulp and Paper Industry

The whole of permits examined don't provide prescription about certification or registration concerning Environmental Management Systems
56% of permits don't individualize goal to achieve about environmental performance

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1.1. Combustion plants

63% of permits don't assess EMS as well 37% of permits analyzed emphasize themselves that even though an EMS don't had been prescript, plants have a EMS as UNI EN ISO 14001.

32% of permits assess dead line for environmental improve to achieve such as: regeneration oil of oil compressor units, arrangement and management meteoric water its net, reduction water consumption.

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5.4. Landfills

In permits there aren't reference on EMS also if in 25% of permits analyzed plants have a EMS such as UNI EN ISO 14001 o EMAS

25% of permits assess dead line for environmental improve to achieve such as: a centralized system to collect and burn biogas, adjustment of a piezometer net, prescription about future closure of firm.

In one case is provided the progressive reduction of waste conferment by 2008



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3.5. Ceramic Industry

In permits there aren't reference on EMS in 91% of permits analyzed, the remaining 9% has a EMS as UNI EN ISO 14001

54% of permits analyzed assess dead line for environmental improve to achieve such as: to waterproof tank of fuel oil; training workforce plan for right environmental management, to install flow measurer on wastewater discharge and meteoric water, to install extractor for pervasive emission, installation wastewater settler and meteoric water oil separator.

Some permits provided studies to find to lower CO emission from firing furnace. One case provides action for energy saving and utilization renewal energy.

4.3 The Emission Limit Values related to the emissions to air

❖ Combustion Installations (epigraph 1.1)



Electric power generation (1.1.a)									
Phase	Technology	Fuel	ELV (mgNm ³)				ELVs are those indicated by law?	Monitoring frequency	Total
			Dust	NOx	SOx	CO			
Steam turbine (conventional boiler)		Coal							0
		Biomass							0
		Natural GAS	5	200**	35**	100**	yes	CEM(NOx and CO) Six monthly O2 and NOx	1
Heat boiler (WITHOUT post-combustion)		Natural Gas/ Diesel (alternative fuel)	5	50**	35**	30**	yes	CEM(NOx and CO) (Annual for Dust and SOx)	1
			5	50**		30			1
			5	120		30			2
			5	150**	35**	100**			2
			5	150**		100**			1
			5	200		30			1
			5	300		250			1
			5	450**	5**	300**			2
Heat boiler (WITHOUT post-combustion)		Natural Gas/ Diesel (alternative fuel)	5	200**	35**	100**	yes	annual	1
Heat boiler (WITHOUT post-combustion)		Natural Gas/ Diesel (alternative fuel)	5	250**	5**	300**		CEM(CO) Six monthly other parameters	1



				300		250				3
Other emission points (Auxiliary boiler)		Natural Gas	5	120**	35**	100**	yes	CEM(NOx and CO) Annual (Dust and SOx)		1
Other emission points (Bark boiler)		Natural Gas/waste	25	400**	200**	100**	yes	CEM(NOx and CO) Six monthly O2 and NOx		1

** values concerning Oxygen reference of 15%

Electric power generation (1.1.a)										
Phase	Technology	Fuel	ELV (mgNm ³)				ELVs are those indicated by law?	Monitoring frequency	Competent Authority	Total
			Dust	NOx	SOx	CO				
Steam turbine (conventional boiler)		Coal								0
		Biomass								0
Heat boiler (WITHOUT post-combustion)		Natural Gas/ Diesel (alternative fuel)	5	35-450	5-35	30-300		CEM(NOx and CO) Annual - semiannual (Dust and SOx)	CA n. 4 and CA n.1	6
Other emission points (please specify)		Natural Gas/Waste	5-25	120-400	5-200	100-300			CA n. 4 and CA n.5	2



1.1. Combustion plants

G.L. assess: nitrogen oxides, carbon oxides;
T.U. assess: sulfur dioxides, nitrogen oxides

90% plants respect G.L. limit values for existent plants with oxygen 15%, they have 80-140 and 150-250 mg/Nm³ respectively. In permits the value are lower than high limit of two ranges, remain 10% respect T.U.'s limits established as 300 mg/Nm³. All plants have emission continuous monitoring CO's value fluctuating between 30 to 300 mg/Nm³



❖ Ceramics (epigraph 3.5)

Ceramics (epigraph 3.5)									
Phase	Technology	Fuel	ELV (mgNm ³)				ELVs are those indicated by law?	Monitoring frequency	Total
			Dust	NOx	SOx	CO			
Mills	Sleeve filters, bag filters, humid filters/destroyers	-	10					annual	1
Extruders	Sleeve filters, bag filters, humid filters/destroyers	-	10					annual	1
Press	Sleeve filters, bag filters, humid filters/destroyers	-	10					annual	1
Mixer	Sleeve filters, bag filters, humid filters/destroyers	-	10					annual	2
Dust remover	Sleeve filters, bag filters, humid filters/destroyers	-							0



Dryer	Cyclone, sleeve filters	Natural Gas	20	150**	150**	150**		annual	1
		BTZ	10	150	200			annual	2
		BTZ	20	150	150			annual	1
		BTZ	25	100	500	150		annual	1
Tunnel-oven	Post combustor	BTZ	10	150	200			annual	3
		BTZ	25	100	500	600		annual	1
		BTZ	20	150	150			annual	1
		Natural GAS	20	150**	150**	600**		annual	1
		Biomass							
Hoffman Oven		Coke + Olive oil waste							0



Intermittent Oven	Post Combustor	Natural gas	10					triennial	1
Single-storeyed Oven		Natural gas							0
Other emission points (please specify)	Heat Recovery		10					triennial	1
Other emission points (please specify)	Heat Recovery		25	100	500			annual	1
Other emission points (please specify)	Heat Recovery		10	150	200			annual	1
Other emission points (please specify)	Welding		10					triennial	2



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3.5. Ceramic Industry

Analyzed limits are those from T.U. that assess: fluorine and its compounds, dust, nitrogen oxides, sulfur oxides

90% permits' value for dusts are between 10-20 mg/Nm³ the remaining 10-25; 150 mg/Nm³ for NO_x, 150-500 mg/Nm³ for SO_x. Into 16% there aren't fixed limits values; for CO limits values are 100-600 mg/Nm³, in functioning of oxygen, more than 30% permits haven't limits values for CO.

❖ Landfills (epigraph 5.4)

Landfills									
Phase	Technology	ELV (mgNm ³)				ELVs are those indicated by law?	Monitoring frequency	CAs	Total
		Dust	NO _x	SO _x	CO				
Inmission									
Forced evaporation of leaching waters									
Biogas using or burning		10	450		500	yes	annual	CA 6 7	
Degassing of the landfill									

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5.4. Landfills

Analyzed emission are those resulting from cogeneration plants powered with landfill biogas

The limits considered are those from T.U. that assess for these plants total organic carbon (TOC), carbon oxides (CO), nitrogen oxides, chlorine organic compounds like Hal, limits are in functioning of plants power >=3MW, >=3MW.

Permits' value are 10 mg/Nm³ for dusts, 450 mg/Nm³ for NO_x, 500 mg/Nm³ for CO

❖ Paper (epigraph 6.1)

Paper (epigraph 6.1)										
Phase	Technology	Fuel	ELV (mgNm ³)				ELVs are those indicated by law?	Monitoring frequency	CAs	Total
			Dust	NO _x	SO _x	CO				
Thermal central	-	Natural Gas	5	150-500		100	yes	yearly	CA1 e CA5	3



Dryer	Cyclone, scrubber, filters		10	150-350	35	150	yes	yearly	CA 4, CA 5, CA 6	3
Boiler				80		60			CA 4	1
Cup	-	-								
Other emission points (please specify)			10	150	10	150	yes	Yearly/ every 3 years	CA 4, CA 5, CA 6	6

6.1. Pulp and Paper Industry

Analysis has been made in accordance with the ministerial G.L. and D.Lgs 152/2006 (from now T.U.)

G.L. assesses:

energy production: total sulfur, sulfur dioxides, dust;

paper production: sulfur dioxides, sulfur, dust

G.L. characterizes performance range, they change in functioning of used abatement techniques and oxygen concentration.

T.U. imposes limits in functioning of plants power and oxygen concentration.

Answers underlined that about energy production there is compliance with G.L.'s limits for NOx in case they use gas (ELM 100-200 mg/Nm³ - 3% oxygen), the values in permits are 150 mg/Nm³

In case the combustible is fuel oil the G.L. limit is 120-150 mg/Nm³, in permits limit is lower. Only one case has limit as 500 mg/Nm³, but in any case is compliance with the limit of T.U.

If use gas dust's limits is 5 mg/Nm³, in permits is respected the T.U.'s limit

If use fuel oil dust's limits, G.L. assess for old plants value as 10-50 mg/Nm³ and 50-80 mg/Nm³ in functioning of sulfur content and oxygen 3%.

T.U. has limits 100-150 mg/Nm³ with plant power < 5MW and 50 mg/Nm³ with plant power > 5MW.

There is compliance with T.U. limits. Only one case is near maximum limit but is predicted frequency control every six months against annual control predicted for the other plants.



Answers underlined that about paper production there is compliance with T.U.'s limits for NO_x, in the little case which they are predicted, are: 250-500 mg/Nm³ for the desiccation phase to other cases where the limit is 150 mg/Nm³

There aren't limits value for paper production phases about dust, they have been derived from past experiences and previous analysis made by Arpa, on basis of productive cycle, area where the plants insist. The value are between 5-10 mg/Nm³

Monitoring frequency for energy production is each year, while for paper production is triennial

4.4 The other requirements and conditions related to the management of the emissions to air

Requirements and conditions related to the management of the emissions to air					
	1.1	6.1	3.5	5.4	Total
Technical instructions related to the conditioning of sources (outlet sampling, measuring holes, working platform, etc.)	14	1		5	20
Maintaining Plan for productive equipments and environmental control equipments	14	12	25	14	65
Continuous online monitoring	10				10
Measuring Automatic Systems (verification and/or periodic calibration according to the corresponding reference standards)		6	1		7
Measuring of gas flow	9	8	14	15	46
Logbook of Emissions and/or inmissions	14	1	19	12	46
Control measures to minimize diffused emissions (i.e. periodic irrigation, girth fence with bushes, etc.)	3	1	4	14	22
Measuring of inmission levels.	9				9
Cooling towers	9	1			10
Meteorological parameter control	9			11	20
Periodical monitoring of some parameters	14		22	14	50
Sampling/analysis/monitoring methods	9	4	1		14
Requirements about chimneys	14	5	7		26



Registry about analysis/controls	14	7		12	33
Communications	15	15	24	16	70
Requirements about specific materials	9	3			12
Requirements about emissions	15	14	19	12	60
Others (please specify)					0

6.1. Pulp and Paper Industry

90% permits analyzed has prescription concerning air emission management. 37% provides CEM (Continuous Emission Monitoring) on energy production plants concerning CO, T° and O₂. For plants powered with fuel oil (low content sculpture) are provided controls such as viscosity, content sculpture, ashes.

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1.1. Combustion plants

All permits referring to CEM, with general prescriptions, as communication mode of auto monitoring controls and mode to give access at Competent Authority.

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5.4. Landfills

All permits provides: efficiency controls on extraction net of biogas; air quality checks in more than one point out area on landfill to search for PM10, NMHC, CH₄, H₂S, NH₃; meteorological data management; flame for landfill biogas combustion at high temperature 1200°C or >850°C O₂ at 3%. In one case is provided a dispersion model of gas

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3.5. Ceramic Industry

Are prescribed checks such as COTNM 50 mg/Nm³, Hal 10 mg/Nm³ and HF 5 con O₂ at 18%, and checks on fluorine compounds. For some plants typology have been scrap the obligation to recalculate measurement values to the oxygen standard reference.

4.5 The Emission Limit Values related to the emissions to water

❖ Combustion Installations (epigraph 1.1.)

Combustion installations						
Destination if industrial waste water	ELV (mg/l)			ELVs are those indicated by law?	Monitoring frequency	Total
	COD	TSS	Sulphates			



Coastal Waters						0
Surface Waters	160	80	1000	yes	yearly	2
Sewers	500	200	1000	yes	yearly	6

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1.1. Combustion plants

10% discharges in soil, 10% don't give information, 10% discharges in purification plant no own, the other discharges in sewers.

The limits considered are those from T.U.

Limits for sewer are:

COD 500 mg/l; TSS 200 mg/l; Sulfates 1000 mg/l

Limits for soil are:

COD 250 mg/l; TSS 200 mg/l; Sulfates 1000 mg/l

❖ Ceramics (epigraph 3.5.)

Ceramics						
Destination of industrial waste water	ELV (mg/l)			ELVs are those indicated by national law?	Monitoring frequency	Total
	COD	TSS	Sulphates			
Surface Waters	160	80	1000	yes	Three-monthly yearly	6
Sewer	500	200	1000	yes	Three-monthly yearly	3
Sewer	700	700	1000	no	yearly	1

3.5. Ceramic Industry

There aren't discharges coming from productive cycle, remaining emphasize cooling water.

Limits are those of waste household water foreseen to the regional rules and for cooling waters are those foreseen to the T.U.



❖ Landfills (epigraph 5.4.)

Landfills						
Destination if industrial waste water	ELV (mg/l)			ELVs are those indicated by national law?	Monitoring frequency	Total
	COD	TSS	Sulphates			
Surface Waters						0
Sewer	500	200	1000	yes	yearly	3
Sewer	2000	1000		no	yearly	2

+++++

5.4. Landfills

Only 5 plants discharges its sludge in sewers, two are authorized to discharge out of the rules of law thank an agreement with the sewer manager. The other haven't discharges because the percolate are convey in tanks, meteoric water are discharges in sewer or in surface water in according with T.U. limits.

❖ Paper (epigraph 6.1)

Paper						
Destination if industrial waste water	ELV (mg/l)			ELVs are those indicated by national law?	Monitoring frequency	Total
	COD	TSS	Sulphates			
Surface Waters	160	80	1000	yes	Yearly	13
Surface Waters	160	80	1000	yes	Six-monthly	1
Sewer	500	200	1000	yes	yearly	1

6.1. Pulp and Paper Industry



10% of permits assess discharge of wastewater in sewers, remaining 90% in surface waters. Permits are related at T.U. limit value and don't assess % abate provided by G.L.

Surface water limit value are: COD 160 mg/l; TSS 80 mg/l; Sulfates 1000 mg/l
Sewers: COD 300 mg/l; TSS 200 mg/l; Sulfates 1000 mg/l

4.6 The other requirements and conditions related to the management of the emissions to water

Requirements and conditions related to the management of the emissions to water					
	1.1	6.1	3.5	5.4	Total
Sampling port	19	15	10	5	49
Flow-meter (measures of the emission flow)	5	11		5	21
Measuring Automatic Systems (verification and/or periodic calibration according to the corresponding reference standards)					0
Continuous online monitoring (auto-control activities)					0
Landfill characterization					0
Permitted maximum volume of emission					0
Plan for Monitoring and Control of the RECIPIENT MEAN ¹	1			2	3
Monitoring and STRUCTURAL Control Plan on the discharge conductions	1				1
Decanting ponds		2	15		17
Sludge or mud removal and treatment by authorized operator	2	2	5	5	14
Report on flow and composition of emissions	6	2		17	25
Communication to control/competent authorities	13	13	2	14	42
Periodical monitoring/analysis/sampling of some parameters	10	13	2	6	31
Monitoring/control by the Environmental Protection Regional Agency		1			1
Pollution prevention					0
Requirements about industrial/domestic/meteoric waters	19	15	24	21	79
Report/registry about controls/analysis/interventions/maintenances/monitoring	19	15	24	21	79
Measures for the reduction of water emissions			1	1	
Others (please specify)					

¹ Among other things, temperature control, physical-chemical parameters control (oils and greases, colour, transparency, etc.), sediment control, organism control and salinity control.



6.1. Pulp and Paper Industry

90% analyzed permits has prescription for daily check for parameter as T°, pH, O₂ TSS, COD, ammonia nitrogen, some metals and discharge flow measure.

10% analyzed permits has prescription for monthly analysis of effluents in and out from purification plant.

Limits values are those of T.U.

+++++

1.1. Combustion plants

60% permits have prescriptions for recording, storing and management water get in and discharged volume and about water meter working.

Some permits prescribe cleaning of surface drainage.

+++++

5.4. Landfills

50% permits have prescription such as: meteoric water measurement; measure for prevent sharing meteor water and waste. In one case is prescribed the water meter before discharge in sewer.

+++++

3.5. Ceramic Industry

There aren't other requirements and conditions related to the management of the emission of water

4.7 Any other limits imposed in the permit and related to other environmental aspects

<i>Emission Limit Value (dBA)</i>						
<i>Acoustic level</i>		1.1	6.1	3.5	5.4	<i>Total</i>
<i>Day</i> (7a.m.-11p.m.)	70 dBA	19	15	24	21	79
<i>Night</i> (11p.m.-7a.m.)	70 dBA	19	15	24	21	79

6.1. Pulp and Paper Industry

There aren't other limits imposed in the permit and related to other environmental aspects.



+++++

1.1. Combustion plants

For several plants there are prescriptions about NOx continue flow mass limit valued on whole heat plant, value obtained from total thermal energy of boilers functioning with a fixed annual hour work

+++++

5.4. Landfills

Are imposed groundwater checks and interstitial air in soil and biogas. In one case is provided the respect of terrace volumes, stability body landfill, subsidence measurement, lichens bio-monitoring, vegetable barrier goes round on the landfill perimeter.

+++++

3.5. Ceramic Industry

50% analyzed permits don't have prescriptions related other environmental aspects. There are prescriptions on rain water management, on recording of plants checks.

4.8 The requirements connected with the waste management

Requirements and conditions related to waste management					
	1.1	6.1	3.5	5.4	Total
Packaging conditions					0
Prevention/avoidance of waste production according to the law					0
Reduction of waste impact on the environment					0
Qualitative/quantitative monitoring of waste					0
Modalities of disposal/storage of waste according to the law	14	15	24	9	62
Waste classification/characterization	19	15	24	21	79
Planimetry about storage area	1	1	4		6
Typologies of authorized waste		1			1
Reclaim of waste with a low impact to the environment		1			1
Periodical report				11	11
Presentation of other documents					0
Documents of control and monitoring	1	1		11	13



Plan of waste management				11	11
Draining and collection system	1	2	6		9
Measures for environment/health/safety protection					0
Requirements about urban waste					0
Use of specific materials					0
Separated waste storage	11	10	19	19	49
Delivery to authorized operator or local entity					0
Electric and electronic waste management					0
Container and waste container management: - Annual Container Report - Container Prevention Plan					0
Only for landfills					
Typologies of waste accepted/not accepted in landfill				18	18
Materials that can be used for landfill covering				18	18
Controls of waste				18	18
Typologies of waste that can be treated in landfill					0
Maximum quantity of waste accepted in landfill				18	18

6.1. Pulp and Paper Industry

The whole of permits show that waste are worked in according with conditions of T.U.

Particular reference is made to temporary storage of waste as article 183 T.U. and ministerial decree for paper, cardboard recovery.

Some answers show prescriptions about differentiation for kind of waste, use of signpost, decontamination and retire instruments contain PCB

+++++

1.1. Combustion plants

Particular reference is made to temporary storage of waste as article 183 T.U

+++++

5.4. Landfills

There are prescription such as: wastes admissibility with daily amount conferred compliance; respiration meter index to the FOS used for daily covered < 600 mg mgO2/KgVS*h (oxygen demand like Kg volatile solid on dry) limit value: 1000 for static limit and 400 for dynamic limit; respiration meter index to the FOS used for regularly final blanket < 400 mg O/kg VS/h on dry; biogas gaining efficiency to 85% product for year; plan of conferred waste sampling. There are moreover prescription for landfill management after its closure.



+++++

3.5. Ceramic Industry

Particular reference is made to temporary storage of waste as article 183 T.U and there are general prescription about storage procedures of wastes.

❖ Waste operators (only for landfills, epigraph 5.4.)

Requirements and conditions related to the management of the emissions to water		Total
Entry control	Proceeding of waste admission	
	Checking documentation ²	*
	Weight and registry of the load ³	*
	Visual inspection	*
	Characterization and/or periodic waste sampling	*
	Notice to the Environmental Regional Department when refusing wastes	0
	Delivery to each producer of the corresponding authorization ⁴	*
Previous treatment	Previous treatment for urban wastes	
	Waste recovery process	*
	Biodegradable material recovery	0
	Composting plant	0
	Container selection plant	0
	Previous treatment for hazardous wastes	
	Physical-chemical treatment	0
	Biological treatment	0
	Thermal treatment	0
Landfill building features	Soil protection and waterproof measures	
	Geological barrier and artificial coating	*
	Drainage and management of leaching waters	
	Leaching water storage ponds	0
	Plants of forced evaporation of leaching waters	0
	Drainage and management of rain waters	
	Maintenance, cleaning and revision of rain water networks	*
	Gas draining and management (use of biogas)	

² Vehicle authorization, completing monitoring and control document, etc...

³ Weight, date and time of entry, origin of waste, type of waste, landfill, etc...

⁴ Minimum content of the authorization: Opening time of the landfill, ways of delivering wastes, maximum authorized quantity and management cost for each waste consignment.



	Torch or biogas burning	*
	Energy use through internal combustion engines	*
	Landfill enclosure (metallic mesh)	
	Periodic maintenance and revision	*
	Inconveniences and risks	
	Control of noises, smells, dust...	*
	Plagues and insects control	
	Protection measures against fires	*
Control and monitoring	Control and monitoring of leaching waters	
	Monthly/three-monthly control of volume and composition of leaching waters	
	Three-monthly control of volume and composition of surface waters	
	Daily control of meteorological data ⁵	8
	Control and monitoring of groundwaters	
	Six-monthly control of the level of groundwaters (piezometric wells)	*
	Periodical control of the composition of groundwaters	*
	Control and monitoring of gases	*
	Periodical control (our change) of air emissions (CH ₄ , CO ₂ , O ₂ , H ₂ S, H ₂ , etc.)	*
	Control of inmission levels	
	Area topography Data on landfill	
	Annual control of the structure and composition of the landfill	*
	Annual control of the development of landfill settlement degree	*
	Post-closure	Post-closure Maintenance Plan
Post-closure Maintenance		*
Six-monthly control and monitoring of leaching waters		*
Six-monthly control and monitoring of groundwaters		*
Six-monthly control and monitoring of gases		*
Periodic control of meteorological data		*

* These requirements concerning all landfills

⁵ Rain volume, minimum and maximum temperature, direction and speed of the wind, evaporation and air humidity.



4.9 The specific requirements and conditions for the protection of contamination of soil and groundwater

Requirements and conditions for the protection of contamination of soil and groundwaters					
	1.1	6.1	3.5	5.4	Total
Soil Pollution:					
Preliminary Report on the soil					0
Measures related to the storage or chemical products	9	13	21		43
Spill walls					0
Draining and collection system	9	13	21		43
Proofs of leakage detection and watertight	2		1	1	4
Communication/information of some aspects					0
Others requirements (please specify)					0
Groundwater:					
Maximum volume for collecting groundwater					0
Control/analysis/monitoring of groundwater	2			18	20
Monitoring of ground-water level	2			18	20
Others (please specify)					

6.1. Pulp and Paper Industry

Are prescript: check about tanks watertight for fuel oil; general prescription about storage procedures of wastes, basins to containment for raw materials tanks; to install methanol capture systems with automatic stop in case of loss; pressure check into methanol's external liner, six-months check.

1.1. Combustion plants

There aren't particular prescription apart generic prescription for six-months check of basin to containment of the exhausted oils.

5.4. Landfills

All permits have prescription for the protection of contamination of soil and groundwater. They are referred to waterproof basins, landfill percolates. Are provided weekly, monthly checks and quarterly checks with reduced set of parameters to analyzing and annual with completed set for groundwater control.



+++++

3.5. Ceramic Industry

Are prescript: check about tanks thickness for fuel oil; general prescription about storage procedures of wastes.

4.10 The management requirements for the noise emissions

Requirements and conditions of the management for noise emissions					
	1.1	6.1	3.5	5.4	Total
Designing equipments	2				2
Measures for acoustic isolation					0
Maintenance Plan					0
Established inspections					0
Limited working time					0
Comply with the municipal acoustic plan	19	15	24	18	76
Acoustic audit	4	5	6	14	29
Measures for minimize noise emissions	2				2
Registry/report about noise emissions	4	5	6	14	29
Measures in case of installations exceeding of ELVs					0
Others requirements (please specify)					0

Monitoring frequency of noise emissions						
	1.1	6.1	3.5	5.4	Competent Authority	Total
More times a year				2	CA n.6	2
Yearly				7	CA n.6	7
Biennial	2	3	3	1	CA n.4	9
Three-yearly				3	CA n.4	3
Four-yearly		2			CA n. 5	2
No monitoring frequency specified						56
Others (please specify)						

6.1. Pulp and Paper Industry



The whole of permits make reference to the municipal acoustic zone plane, where it isn't provided they make reference to the decree 01/03/1991

+++++

1.1. Combustion plants

The whole of permits make reference to the municipal acoustic zone plane and most cases there aren't provided monitoring or particular disposition.

+++++

5.4. Landfills

The whole of permits make reference to the municipal acoustic zone plane. In some permits are provided monitoring when the plants are in process.

+++++

3.5. Ceramic Industry

The whole of permits make reference to the municipal acoustic zone plane and there aren't provided monitoring or particular disposition.

4.11 Requirements and conditions related to the odour emissions and energy consumption

Requirements and conditions related to the odour emissions and energy consumption					
	1.1	6.1	3.5	5.4	Total
Coating, isolation, sealing, etc...		1		14	15
Maximum permitted consumption					0
Measures to minimize energetic consumption (i.e. change of fuel) and/or odor emissions	1	4	2	16	23
Effective/efficiency use of energy	2		8		10
Monitoring of energy consumed/produced	10	2	11	6	29
Energy audit program or Energy efficiency assessment	1				1
Use of specific fuels		2	2		4
Others requirements (please specify)					0

6.1. Pulp and Paper Industry



70% permits haven't prescription related to odor emissions.
30% have prescriptions about purification plants of wastewater as basins covering.
Only one permit has general prescriptions related safekeeping for all environmental components.
Some permits have prescriptions for flame biogas checks, for sludge depuration, for humidity of anaerobic digester.

Lot of permits don't provide prescriptions about energy consumption.
20% (where central heating exist and It is considered IPPC cod. 1.1) is provided the replacement of burners with LowNOx technology or with water injection technology

Are recall the Energy Saving Index and the Thermic Limit, provided form national rules for the recognition to the cogeneration plants state.

+++++

1.1. Combustion plants

100% permits haven't prescription related to odor emissions.

60% permits don't provide prescriptions about energy consumption.

Remaining 40% have evidence for the reduction of energy consumption, for implementation of computerized measurement systems and tele-diagnostic; for the daily automonitoring with recording and triennial audit to send to the competent Authority.

Only in one case is provided the substitution of turbine.

+++++

5.4. Landfills

65% of permits are provided prescriptions for covering wastes with eligible materials by 18 hours., in two cases are provided to install odor detector, in other two cases is provided to pay attention to aerosol and percolate stagnation.

15% of permits declare in general matter which operative modes will be harmonizing with the control authorities if needs.

There aren't prescriptions about reduction of energy consumption. Some permits give evidence that biogas have to used for energy production.

+++++

3.5. Ceramic Industry

100% permits haven't prescription related to odor emissions.

Some permits have prescriptions such as bimestrial automonitoring of energy consumption with audit on energy efficiency; requirement of change in case of plants substitution technology more efficiency and performer.



4.12 The specific requirements and conditions for the management of the abnormal and emergency conditions and the requirements related to the cases of installations exceeding of the Emission Limit Value

Abnormal and emergency conditions					
	1.1	6.1	3.5	5.4	Total
Measures to control air emissions and discharges in case of stops and starts of the installations	9				9
Reporting the Environment Regional Department in case of air emissions and discharges in case of leaks or failures of operation					0
Communication to the authorities about exceptional emissions and about interventions in order to re-establish the ordinary activity	8		18	15	41
Recording of plant interruptions, incidents, etc.	8				8
Minimize the effects in the environment	19	15	24	21	79
Reporting the Environment Regional Department in case of any accident or incident	6	4	16	13	39
Others requirements (please specify)					0

Exceeding Emission Limit Values					
	1.1	6.1	3.5	5.4	Total
Measures to be established when exceeding ELV of air emissions	11	4	11		26
Measures to be established when exceeding ELV of discharges	3	8			11
Measures to be established in case of accident or emergency with hazardous wastes					0
Measures to be established when exceeding ELV of other emissions typologies (e.g. noise, etc).				2	2
Measures to be established in case of soil pollution	2			12	14
Communication to control/competent authorities	12	8	7	14	41
Others requirements (please specify)					0

6.1. Pulp and Paper Industry

90% permits haven't prescriptions related emergency management.



Remaining 10% permits have prescription to neutralize loss and dumping of raw materials. Is making the safety schedule evaluation of raw materials with prescriptions of eligible precautions.

+++++

1.1. Combustion plants

If limits value are exceeded, in one case is provided the stop of process for all time to need.

Remaining cases provided the best tactics to guarantee the quickly restoring of normal condition. The abnormal situations have to be communicate by 8 hours, explaining the necessary actions to solve the problem to the control authority.

+++++

5.4. Landfills

Nearly everything permits have prescriptions for the management of the abnormal and emergency conditions as set out action plans for managing: water flood, fires, explosions, limits overtake environmental contamination, casual dissemination of wastes or as safety life guards for operators, water barrier (pumped and treat water from control-wells) in case of overtake limit of groundwater; in two cases provided H24 surveillance.

+++++

3.5. Ceramic Industry

There aren't prescription for the management of the abnormal and emergency conditions.

46% permits have prescriptions for limit overtake emission values, in particular for air emissions.

General prescriptions in according with T.U. for air emissions overtake: stop process since restore normal conditions

4.13 Any other requirements included in the permits analyzed

6.1. Pulp and Paper Industry

Don't rise significant prescriptions different from that has already showed in this analysis

+++++

1.1. Combustion plants

Don't rise significant prescriptions different from that has already showed in this analysis

+++++

5.4. Landfills

Don't rise significant prescriptions different from that has already showed in this analysis



Remaining permits have prescriptions related to: bank guarantees, environmental recovery, maintenance plan for biogas recovery, regard and maintenance landfill slope and zone topography.

+++++

3.5. Ceramic Industry

50% analyzed permits don't rise significant prescriptions different from that has already showed in this analysis

Remaining permits have prescriptions related to: planning automonitoring and communications as how to show control report to public

In one case is provided to assess asbestos-cement roofs' wear and its substitution.

4.14 The frequency requested to the installations for sending the periodical communication about the results of the Monitoring Plan to the Competent Authority

Periodic communication to the Environment Regional Department						
		1.1	6.1	3.5	5.4	Total
Result of monitoring activities	Initial			2		2
	Monthly					0
	Three-monthly		1		10	11
	Six-monthly	3			11	14
	Annual	11	13	22	10	56
	> annual		1	1		2

6.1. Pulp and Paper Industry

81% permits provided annual communication about the results of Monitoring plan

Remaining 10% provide annual communication for air emissions and a wastewater emissions; triennial communication for noise and six-months for energy production

+++++

1.1. Combustion plants

All plants have emission continuous monitoring system, 58% permits provided annual communication about the results of Monitoring plan

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5.4. Landfills

There are provided four-monthly, six-months and annual communication for 58% analyzed of permits.



Four-monthly: groundwater analysis, percolate, interstitial air, biogas, air quality;

Six-months: waste volume landfill, price conferment, percolate volume made and extract, residual volume, water table level, meteo data;

Annual: groundwater analysis complete set, technical report about biogas extraction, technical report environmental monitoring, forward move environmental recovery, assess water-proofing effectiveness, co-generator air emissions analysis, technical report on bio filters

Remaining permits provided six-months reports on groundwater analysis, drainage water, surface waters, meteor water, biogas, air quality, meteo data, use of landfill, survey of area and volumes of wastes storage, percolates and biogas.

+++++

3.5. Ceramic Industry

All analyzed permits provided annual communication.
Only one permit don't provide communication but only auto monitoring forwarding.

4.15 The number of the pages of the several permits analyzed

Number of pages of the IPPC Permits					
	1.1	6.1	3.5	5.4	Total
< 30 pages	11	6	14	8	39
30-40 pages	5	3	3	5	16
40-50 pages	2	5	4	4	15
> 50 pages	1	1	3	4	9

4.16 The strengths and weaknesses identified in the Control and Inspection System analysis

Questionnaire don't have valued these questions that are been extracted for all sector from answer sent by companies.

Strengths: improvement relationships and company image with Public Authorities; punctual and systematic control all environmental components; a single permit is better than more permits because is possible harmonize all environmental actions; better environmental consciousness, easier find environmental data and information.



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Weaknesses: difficult to interpret and understand the rules; different limit for same kind of plants in functioning of Competent Authorities; inhomogeneous documents of application forms between different Competent Authorities; too expensive to make adjustments; nothing profit improvement; raise of costs; legal sanctions too heavy.





ANNEXES

ANNEX I. Legislative Analysis questionnaire

The objective of this part of Analysis is to assess how the IPPC Directive has been implemented in the national and local legislative frameworks.

1. How have the national Authorities implemented the Directive?
2. How have the Local/Regional Authorities implemented the national legislative act(s) pertaining the Directive?
3. Please describe what are the National and/or Local/Regional competent Authority/Authorities in charge of the issue of the Integrated Environmental Authorizations (IEAs)
4. Please describe the measures adopted to assure the integrated approach for the issue of the IEA
5. How have the BREFs been introduced in the national context?
6. How have the BREFs been introduced in the regional and local context?
7. Role of the horizontal BREFs: how are they used or taken into consideration in the permitting procedures, and how have they eventually been introduced with national/local Guidelines?
8. How do(es) the Competent Authority/Authorities require in the permits additional measures in the situations that need “stricter conditions than those achievable by the use of the best available techniques”?
9. How does the Member State assure that the Competent Authority/Authorities are informed about the developments in best available techniques?
10. How do the national and local laws guarantee the access to information and public participation in the permitting procedure?



ANNEX II. Administrative Analysis questionnaire

This part of Analysis aims at studying the administrative procedures for the granting of the IEAs.

1. What are the data and documents requested by the permitting procedure for the issue of the Authorization for new and existing installations?
2. Please describe the contents of the technical documents requested in the permitting procedure
3. Are there simplifications in the permitting procedure for particular categories of enterprises and/or specific sectors? Which are the enterprises involved in these simplifications?
4. What is the amount of the public fares that the enterprises must pay for the cost of the administrative procedure?
5. What is permitting procedure for the first issue for new and existing installations in term of technical and administrative documents to submit?
6. What is permitting procedure for the first issue for new and existing installations in term of time previewed for the issuing?
7. What is permitting procedure in the case of “substantial changes” of installations in term of technical and administrative documents to submit?
8. What is permitting procedure in the case of “substantial changes” in term of time previewed for the issuing?
9. What is permitting procedure for renewal of Authorizations in term of technical and administrative documents to submit?
10. What is permitting procedure for renewal of Authorizations in term of time previewed for the issuing?
11. How many institutions and/or organisations are involved in the permitting procedure? (please specify their nature and role, e.g.: control authorities)?

Number _____

- | | |
|-------------------------------------------------|-----------------------------------------------------------------------------------|
| <input type="checkbox"/> Municipality | Role/opinion is binding? <input type="checkbox"/> YES <input type="checkbox"/> NO |
| <input type="checkbox"/> Province | Role/opinion is binding? <input type="checkbox"/> YES <input type="checkbox"/> NO |
| <input type="checkbox"/> Region | Role/opinion is binding? <input type="checkbox"/> YES <input type="checkbox"/> NO |
| <input type="checkbox"/> Local health authority | Role/opinion is binding? <input type="checkbox"/> YES <input type="checkbox"/> NO |
| <input type="checkbox"/> Other (Specify) _____ | Role/opinion is binding? <input type="checkbox"/> YES <input type="checkbox"/> NO |



12. What kind of environmental assessment is carried out in the permitting procedure?
13. Please specify how the Competent Authorities take into account the “flexibility principle” when fixing the Emission Limit Values in the Authorisations
14. How many IEAs have been issued by the competent Authority(ies) in relation with the total installations subject to the Directive?
15. What is the foreseen duration of the Authorisation?
16. Please describe the procedure for the updating of the permit conditions in the cases foreseen by the Directive
17. Please specify if the “production capacity” of the installations specified in the Activities listed in the Annex I is considered by the Competent Authority as “effective production of 1 year” or “maximum productive capacity”
18. Please specify if the Competent Authority considers the specification of the production “per day” related to the total number of “workable days” (e.g. 220 days) or to the effective number of days worked
19. Please describe the system and procedures related to the legal and administrative sanctions
20. Does criteria exist by Competent Authority for planning the frequency of inspections?
21. Has the competent Authority carried out specific activities at the national, regional or local level among to assure a common approach and to include homogeneous contents in the IEAs?
22. Have training initiatives (or similar activities) been carried out for the public officers involved dealing with the issue of the Authorisations?
23. What is the number of IPPC competent officers/personal belonging to the institutions and/or organisations involved in the permitting procedure?



ANNEX III. Control and Inspection System Analysis questionnaire

1. What are the Competent Authorities created or designated for the inspections and control procedures in the Region? How many are them?
2. How many planned on-site inspections must be carried out in each installation during the validity period of the Authorization?
3. What is the amount of the public fares that the enterprises must pay for the inspection procedure?
4. Is there any reduction of these fares for particular categories of enterprises (e.g.: Small companies, or companies certified according to ISO 14001 or registered in EMAS) or for specific sectors?
5. Until today, how many planned inspections have been carried out in the authorised installations?
6. What kinds of non-compliances have been most frequently identified by the Control Authorities?
 - Non compliance ELVs
 - Non regular data transmission
 - Non compliance with the requirements contained in IEA
 - Dissimilarity from the management of measuring instruments (incorrect positioning, operation, calibration, maintenance of instruments)
 - Other (specify) _____
7. What is the number of IPPC competent officers/personal belonging to the Competent Authorities in the Control and Inspection System?



ANNEX IV. Content of Authorizations Analysis questionnaire

Analysis of the Content of the Authorizations			
		<p>1.1: Combustion installations</p> <p>3.5. Installations for the manufacture of ceramic products</p> <p>5.4: Landfills</p> <p>2.6: Installations for surface treatment of metals and plastic materials</p> <p>6.1: Industrial plants for paper production</p>	<p>Competent Authority:</p> <p>_____</p>
		Questions	IEA n.1
		IEA n.... (maximum 8)	
1		Please describe, if present, what the IEA says about BAT applicable to the installation	
2		Does the IEA prescribe the adoption of a certified Environmental Management System (EMS) to the installation?	
3		Does the IEA establish timed environmental improvement to achieve?	
4		Emission to air: Emission Limit Value and monitoring requirements for the following emission components: Dust, NO _x , SO _x (expressed in mg/Nm ³ and in O _s %)	
5		Please describe the other requirements and conditions for the management of the emissions to air	
6		Emission to water: Emission Limit Value and monitoring requirements for the following parameters: COD, TSS, Sulfates (expressed in mg/l)	
7		Please describe the other requirements and conditions for the management of the emissions to water	
8		Are there imposed limit related to other environmental aspect not covered by the previous questions? If yes please specify	
9		Please describe the imposed requirements for the waste management	
10		Please describe the specific requirements and conditions for the protection of contamination of soil and groundwater	



Analysis of the Content of the Authorizations

<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<p style="text-align: center;">1.1: Combustion installations</p> <p style="text-align: center;">3.5: Installations for the manufacture of ceramic products</p> <p style="text-align: center;">5.4: Landfills</p> <p style="text-align: center;">2.6: Installations for surface treatment of metals and plastic materials</p> <p style="text-align: center;">6.1: Industrial plants for paper production</p>	<p>Competent Authority:</p> <p>_____</p>	
		Questions	IEA n.1	IEA n.... (maximum 8)
11		Please describe the specific requirements and conditions related to the noise emissions		
12		Please describe the specific requirements and conditions related to the odor emissions		
13		Please describe the specific requirements and conditions related to the energy consumption		
14		Please describe the specific conditions and requirements for the abnormal and emergency condition		
15		Please describe the specific Requirements related to the cases of installations exceeding of the Emission Limit Value		
16		Please insert a description of any other important requirements not covered by the previous questions		
17		Please specify the frequency requested to the installations for sending the periodical communication about the results of the Monitoring Plan to the Competent Authority		
18		Please specify the total number of pages of the analyzed IEA		



References

- ❖ Legislative Decree 59/2005 and s.m.i. (changes and additions);
- ❖ Legislative Decree 152/2006 (Consolidated "environmental standards");
- ❖ Presidential Decree 90/2007 (reordering organizations working at the Environment Ministry)
Decree Law 180/2007 converted into Law 243/2007 (differing terms from 30/10/2007 to 31/3/2008);
- ❖ Legislative Decree 4/2008 (Amendments to procedure for IEA, EIA, SEA);
- ❖ Ministerial Decree 31/1/2005 (Definition of guidelines for identifying and using best available techniques LGMTD);
- ❖ Ministerial Decree 24/4/2008 (Mode including accounting and rates applicable to permitting procedures and controls and inspections provided for by Legislative Decree no. 59/2005);
- ❖ Deliberation of the Regional Council July 29, 2002: The Region has confirmed in provinces the competent authority to grant, renewal and review IEA submitted to regional expertise.
- ❖ Deliberation of the Regional Council 22/12/2008 No. 85-10404 adapting national rates provided by DM 24/4/2008
- ❖ BREF 08/2003 General principles of monitoring;
- ❖ BREF 07/2007 Large Combustion Plants
- ❖ BREF 12/2001 Pulp and Paper Industry
- ❖ BREF 08/2006 Waste Treatments Industry
- ❖ BREF 02/2009 Energy Efficiency
- ❖ BREF 08/2007 Ceramic Manufacturing Industry
- ❖ Draft 2005 General Guide Lines for BAT applications
- ❖ Ministerial Guide Lines for Pulp and Paper
- ❖ Ministerial Guide Lines for Monitoring Systems
- ❖ Draft Ministerial Guide Lines for solid wastes
- ❖ Ministerial Guide Lines for Ceramic Products
- ❖ Draft Ministerial Guide Lines for power stations >50MW
- ❖ Legislative Decree 36/2003 (for landfills)



List of institutions interviewed

- ❖ Arpa Piemonte
- ❖ Provincia di Novara
- ❖ Provincia di Biella
- ❖ Provincia di Cuneo
- ❖ Provincia di Asti
- ❖ Provincia di Vercelli
- ❖ Provincia del Verbano Cusio Ossola



List of permits analyzed

Combustion Plants (epigraph 1.1 of the 96/61/EC Directive):

MICHELIN ITALIANA S.p.A. (SPINETTA MARENGO, AL)
ALBA POWER S.p.A. (ALBA, CN)
EGEA S.p.A. (ALBA, CN)
ELYO ITALIA s.r.l. (CUNEO, CN)
GEVER S.p.A. (VERZUOLO, CN)
JEMINA & BATTAGLIA S.p.A. (SAN MICHELE MONDOVI', CN)
MICHELIN ITALIANA S.p.A. (CUNEO, CN)
ENI S.p.A. CENTRO OLIO TRECATE (TRECATE, NO)
NOVEL S.p.A. (NOVARA, NO)
BG ITALIA POWER (RIVALTA, TO)
AHLSTROM TURIN S.p.A. (MATHI CANAVESE, TO)
COFATHEC ENERGIA s.r.l. (SETTIMO TORINESE, TO)
IRIDE ENERGIA S.p.A. (TORINO, TO)
SEI S.p.A. (RIVOLI, TO)
CONSORZIO PARCO INDUSTRIALE DI CHIVASSO (CHIVASSO, TO)
FENICE S.p.A. (RIVALTA, TO)
IRIDE CENTRALE POLITECNICO (TORINO, TO)
SNAM RETE GAS (MASERA, VCO)
ALPIQ (VERCELLI, VC)

Pulp and paper (epigraph 6.1 of the 96/61/EC Directive):

CARTIERA DI BOSCO MARENGO S.p.A. (BOSCO MARENGO, AL)
BURGO GROUP (VERZUOLO, CN)
CARTIERA TORRE MONDOVI' S.p.A. (TORRE MONDOVI', CN)
CDM PAPER GROUP (VERZUOLO, CN)
ORMEA S.p.A. (ORMEA, CN)
PKARTON S.p.A. (ROCCAIONE, CN)
CARTIERA DI MOMO (MOMO, NO)
KIMBERLY CLARK s.r.l. (ROMAGNANO SESIA, NO)
AHLSTROM TURIN S.p.A. (MATHI CANAVESE, TO)
SONOCO ALCORE DEMOLLI (CIRIE', TO)
CARTIERA SANTA LIDA S.p.A. (GERMAGNANO, TO)
CARTIERA GIACOSA S.p.A. (FRONT, TO)
CARTIERA CASSINA S.n.c. (PINEROLO, TO)
CARTIERE RODOLFO REGUZZONI S.r.l. (GIAVENO, TO)
CARTIERA FAVINI S.p.A. (CRUSINALLO DI OMEGNA, VCO)

Ceramics (epigraph 3.5 of the 96/61/EC Directive):

FORNACE DI BALDICHIERI S.p.A. (BALDICHIERI, AT)
FORNACE BALLATORE GIUSEPPE & C s.n.c. (VILLANOVA D'ASTI, AT)
CELLINO S.r.l. (CHIUSANO, AT)
INDUSTRIE PICA S.p.A. (ASTI, AT)
ALTAECO S.p.A. (CERRIONE, BI)
FORNACI DI MASSERANO (MASSERANO, BI)
FORNACE EUGENIO CASSETTA S.r.l. (ALBA, CN)



FORNACE LATERIZI GARELLI & VIGLIETTI S.r.l. (MONDOVI', CN)
LAFARGE ROOFING S.p.A. (FARIGLIANO, CN)
S.I.L.P.A. S.p.A. (GRINZANE CAVOUR, CN)
SIRE S.p.A. (CHERASCO, CN)
VINCENZO PILONE S.p.A. (MONDOVI', CN)
FORNACE MOSSO PAOLO S.r.l. (SANTENA, TO)
FORNACE LATERIZI CARENA S.p.A. (CAMBIANO, TO)
NIGRA INDUSTRIA LATERIZI S.r.l. (TORRAZZA PIEMONTE, TO)
INDUSTRIA LATERIZI SAN GRATO S.r.l. (PRALORMO, TO)
F.LLI GHIGGIA S.r.l. (TORRAZZA PIEMONTE, TO)
FORNACE PAUTASSO LUIGI S.r.l. (TORRAZZA PIEMONTE, TO)
TOPPETTI 2 S.a. (SAN GIORGIO CANAVESE, TO)
ECOINTER S.r.l. (SAN BERNARDINO VERBANO, VCO)
SANAC (GATTINARA, VC)
RIL (GATTINARA, VC)
LOZZOLO REFRATTARI (LOZZOLO, VC)
REFRATTARI MOTTA (LOZZOLO, VC)

Landfills (epigraph 5.4 of the 96/61/EC Directive):

A.R.AL. AZIENDA RIFIUTI ALESSANDRIA (PECETTO, AL)
COSMO S.P.A. (CASALE MONFERRATO, AL)
ILVA S.p.A. (NOVI LIGURE, AL)
IRWEG S.r.l. (MOLINO DEI TORTI, AL)
G.A.I.A. S.p.A. (CERRO TANARO, AT)
ASRAB S.p.A. (CAVAGLIA', BI)
CAVAGLIA' S.p.A. (CAVAGLIA', BI)
AMICA VILLAFALLETTO S.r.l. (VILLAFALLETTO, CN)
S.P.E.M.E. S.r.l. (VENASCA, CN)
SOCIETÀ TRATTAMENTI RIFIUTI S.r.l. (SOMMARIVA PERNO, CN)
ASSOCIAZIONE DI AMBITO TERRITORIALE OTTIMALE NOVARESE (BARENGO, NO)
EKOSATER S.r.l. (CAMERI, NO)
CONSORZIO GESTIONE RIFIUTI MEDIO NOVARESE (GHEMME, NO)
AMIAT S.p.A. (TORINO, TO)
CIDIU S.p.A. (PIANEZZA, TO)
SIA S.r.l. UNIPERSONALE (GROSSO, TO)
ACEA S.p.A. (PINEROLO, TO)
ARFORMA S.p.A. (MATTIE, TO)
AZIENDA SERVIZI AMBIENTALI ASA (CASTELLAMONTE, TO)
CONSORZIO CHIERESE PER I SERVIZI (CAMBIANO, TO)
BARRICALLA S.p.A. (COLLEGNO, TO)



Glossary

ARPA

Regional Environmental Protection Agency

APPA

Provincial Environmental Protection Agency

ASL

Regional Local Health

BAT

Best Available Technique

BREF

Reference Document on Best Available Technique

BTZ

Low Content of Sulfur - <1%

CA

Competent Authority

CdS

Conference Services

CE

European Community

CEM

Continuous Emission Monitoring (System)

CH₄

Methane

CO

Carbon monoxide

COD

Chemical Oxygen Demand

COTNM

Non Methane Total Organic Carbon

D.Lgs.

Legislative Decree



MED-IPPC-NET

Implementing Eco-Future



DM

Ministerial Decree

ELV

Emission Limit Value

EMAS

Eco-Management and Audit Scheme

EMS

Environmental Management System

FOS

Stability Organic Fraction (of waste)

G.L.

Guide Line

HAL

Halogenated compound

HF

Hydrofluoric Acid

H₂S

Hydrogen Sulphide

IEA

Integrated Environmental Authorization

IPPC

Integrated Pollution Prevention and Control

ISO

International Standard Organization

ISPRA

Superior Institute for the Environmental Research

NH₃

Ammonia

NMHC

Non Methane Hydrocarbons

NO_x

Refer to NO (Nitric Oxide) and NO₂ (Nitrogen dioxide)





MED-IPPC-NET

Implementing Eco-Future



PCBs

Polychlorinated Biphenyls

PM10

Particulate matter or fine particles

PRGC

Municipal General Regulator Plan - urban planning instrument

TSS

Total Suspended Solids

T.U.

Consolidating Act

UNI

Italian Institute of Unification

