



Ympäristöministeriö
Miljöministeriet
Ministry of the Environment

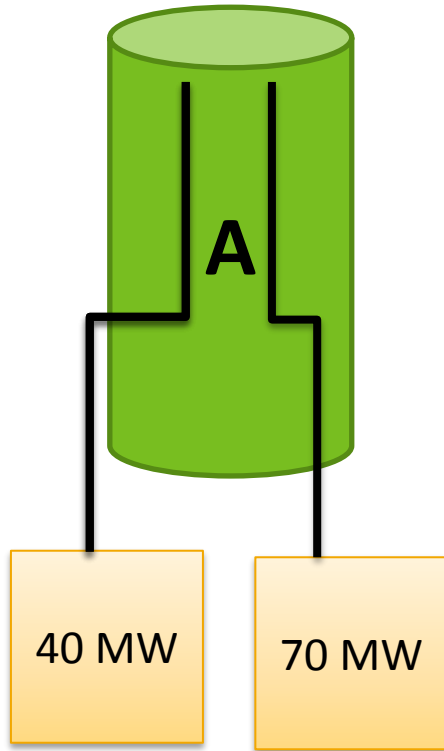
LCP Directive (2001/80/EC) and NERP - Implementation in Finland

Ministerial Adviser Anneli Karjalainen

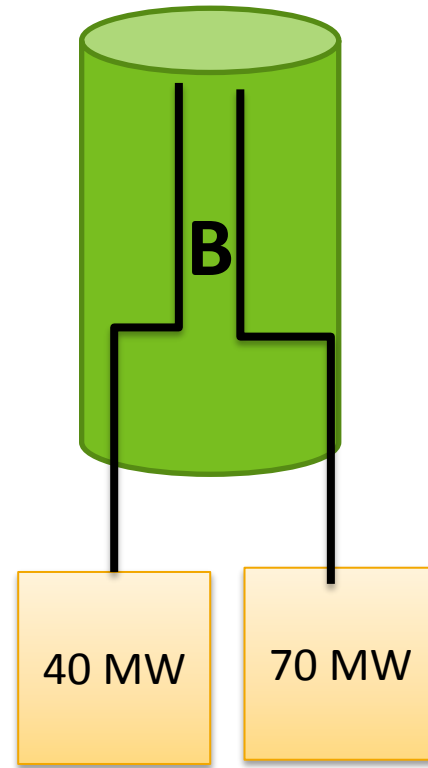
Directive on Large Combustion Plants (LCP Directive) (2001/80/EC)

- Transposition:
 - The Government Decree on limiting emissions of sulphur dioxide, nitrogen oxides and dust from combustion plants and gas turbines with a rated thermal input of at least 50 megawatts (1017/2002)
- Includes
 - the requirements of the Directive in the form of emission limits values both for new (Annex 1) and existing (Annex 2) combustion plants and monitoring, reporting and compliance
 - the flexibility arrangements for certain existing combustion plants (permitted before 1 July 1987)
 - National emission reduction plan (NEPR)
 - Limited life time derogation (20 000 hours)

Finnish LCP Decree (1017/2002)-determination of a combustion plant ("common stack")



One combustion plant of 110 MW
Applicable for **plants permitted after July 1987**



Two combustion plants of 40 MW and 70 MW
The plant of 70 MW falls under LCP requirements
Applicable for **plants permitted before July 1987**

Finnish LCP Decree (1017/2002)

- New combustion plants
 - Permitted on or after 27 November 2002
- Two groups of existing combustion plants
 - Group 1
 - Permitted on or after 1 July 1987 and before 27 November 2002
 - Have to apply ELVs of Annex II of the LCP Decree from 1 January 2008 or desulphurization rates (only for peat fired boilers)
 - Group 2
 - Permitted before 1 July 1987
 - 3 different options applicable from 1 January 2008
 - 1) apply emission limit values of Annex 2 of the LCP Decree
 - 2) all included in the national emission reduction plan
 - 3) declare not to operate more than 20 000 hours in the period of 8 years (from 1 January 2008 until 31 December 2015)

Finnish LCP Decree (1017/2002)

- Compliance with the LCP requirements of combustion plants on group 2 (permitted before July 1987)
 - 2 alternative options to the ELVs (flexibility)
 - **1) an option of “opt-out”**
 - in an existing plant the remaining life time shall be limited to 20 000 operational hours from 1 January 2008 until 31 December 2015
 - The ELVs of Annex 2 shall not apply
 - A written declaration by the stakeholder to the competent authority by 30 June 2004
 - If the plant is going to operate after 1 January 2016 the ELVs of annex 1 (new plants) shall apply
 - in Finland 22 combustion plants chose this option

Finnish LCP Decree (1017/2002)

- **2) National emission reduction plan (NERP)**
 - In Finland changes also in the Environmental Protection Act in 2002
 - The Government shall adopt the decision on the NERP
 - To decide on the joint obligation on certain operators to reduce emissions
 - A body or party representing operators/stakeholders shall provide the proposal to the ministry of the environment
 - Those whose right or interest the matter may concern must be given an opportunity to be heard
 - The detailed requirements of the plan and timetable for submitting the proposal included in the LCP Decree
 - Commission recommendation on the guidelines to assist Member States in preparing NERP (in 2003)

Finnish LCP Decree (1017/2002)

- **2) National emission reduction plan (NERP)**
 - To comply with total emission reductions
 - To include all combustion plants permitted before July 1987
 - To cover all pollutants (sulphur dioxide, nitrogen oxides, particulates)
 - To be applicable from 1 January 2008
 - 2 or 3 periods (2008-2015, 2016 ->, possibly 3 period from 2018)
 - The ELVs shall not apply during the period of NERP
 - The closure of a plant included in the NERP shall not result in an increase in the total annual emissions from the remaining plants
 - The NERP has to revised when changes happen
 - To be provided to the Commission by 27 November 2003
 - The Commission shall within six months evaluate whether or not the NERP meets the requirements of the LCP Directive

The Finnish NERP

- Procedures
 - National
 - 5 bodies representing the organizations of energy, pulp and paper, metal and chemical industry and the sector of district heating made a proposal for NERP on 31 May 2003
 - Finland provided the first NERP adopted by the Government in 2003 covering only NOx emissions
 - EU Commission
 - February 2004 Commission replied
 - The Finnish NERP does not meet the requirements, all pollutants needed to be covered – extended deadline for FI
 - May 2004 FI requested to extend the deadline to November 2004
 - November 2004 final NERP approved by the Government submitted to Commission covering all emissions (NOx, SO2 and dust)

The Finnish NERP

- The NERP covered 86 combustion plants
 - Removed 22 plants which used the derogation of 20 000 hours
 - “Common stack”- approach not applied
- Content of NERP
 - A list of combustion plants in operation in 2000 are included in the NERP with details and emissions in 2001 and 2003
 - The emission reduction objectives from 2008 for SO₂ and PM
 - The emission reduction objective from 2008 and 2016 for NO_x
 - Sum of emissions from individual plants based on fuel used averaged over 5 years (1996-2000)
 - The ELVs applicable from 2008/2016 used for each plant in calculations
 - stricter ELVs for NO_x would apply from 2016

The Finnish NERP

- Measures to achieve the 2008 target
 - To apply ELVs of the LCP Decree for all pollutants from 2008
 - Compliance checked as monthly average
 - Since 1994 /1995 ELVs or guidelines for SO₂, NO_x and particulates in force and implemented
 - Desulphurization, reduced sulphur content of fuels
 - Primary measures (combustion technologies) to reduce N=x
 - ESP (electrostatic precipitators) to reduce particulates
- The NERP was revised in 2005 (covered 78 plants) and 2010 (covered finally 65 plants)
 - Reasons for revisions:
 - Some plants were closed down
 - The rated thermal input of some plants was reduced below 50 MW
 - Some continued waste co-incineration

Later developments in LCP sector

- The Finnish LCP Decree (1017/2002) was repealed when the requirements of Industrial Emissions Directive (2010/75/EU, the IED) was implemented
 - New LCP Decree in early 2013 and in late 2014 a revised version (936/2014)
- The NERP was also repealed in 2012 when Finland adopted on the Transitional National Plan (TNP) as an alternative in the IED to give flexibility of 4 and half years to reduce emissions of existing LCP plants to the level of ELVs in IED
 - Applicable 1 January 2016 to 30 June 2020
 - Combustion plants permitted before 27 November 2002



Ympäristöministeriö
Miljöministeriet
Ministry of the Environment

Thank you for your
attention!

anneli.karjalainen@ymparisto.fi
www.ym.fi