



23.6.2010

YM/6/44/2010, YM 7/44/2010,  
YM 8/44/2010

Yara Suomi Oy  
PO Box 900 00181  
Espoo

Ref.

Case: Authorisation and conditional approval of three joint implementation projects

## Case

Yara Suomi Oy's application, which concerns the approval of the three following joint implementation projects to be carried out in Finland under the Act on the Use of the Kyoto Mechanisms (109/2007):

- 1) The Yara Uusikaupunki T2 N<sub>2</sub>O reduction project (hereafter 'the Uusikaupunki T2 project')
- 2) The Yara Uusikaupunki T4 N<sub>2</sub>O reduction project (hereafter 'the Uusikaupunki T4 project')
- 3) The Yara Siilinjärvi N<sub>2</sub>O reduction project (hereafter 'the Siilinjärvi project')

## Initiation of case

The case was initiated with the Finnish Ministry of the Environment through an application by Yara Suomi Oy dated 17 May 2010. The applicant completed its application on 1 June 2010 by delivering a verification plan for all of the projects.

Prior to initiation of the application process, the Ministry of the Environment gave the applicant advice and responded to questions and enquiries concerning the case. Before submitting the application, the applicant, on 12 March 2009, delivered to the Ministry of the Environment a Project Idea Note (PIN), containing preliminary information on how the project is to be implemented and what its effects will be. Also before submitting the application, the applicant provided the ministry with drafts of project documents and assessments of the impact of the official decision on the feasibility of the projects.

## Content of the application

All projects:

The purpose of these joint implementation projects is to reduce the nitrous oxide (N<sub>2</sub>O) emissions created as by-products in the production of nitric acid ((HNO<sub>3</sub>)) at Yara's two nitric acid sites. Nitrous oxide is also

known as dinitrogen oxide and laughing gas. Nitrous oxide is a very powerful greenhouse gas and one of the gases regulated in the Kyoto Protocol of the UN Framework Convention on Climate Change (UNFCCC) (Treaty Series of the Statute Book of Finland 12 – 13/2005) (hereafter ‘the Kyoto Protocol’).

In the projects, the ammonia oxidation reactors in the production plants are to be equipped with a catalyst developed by Yara. It is estimated that this will reduce nitrous oxide emissions by, on average, 80–85%.

In addition to Yara Finland Oy, the other participants in the project are YARA International ASA (of Norway) and N.serve Environmental Services (in Germany).

#### 1) The Uusikaupunki T2 project

The first project is to be implemented at a Yara nitric acid plant in Uusikaupunki, T2. According to the application, the plant’s current average level of emissions is 9.6 kg N<sub>2</sub>O / t HNO<sub>3</sub>, and annual emissions are about 558,000 t CO<sub>2</sub> equivalent units. The catalyst was introduced on 14 June 2009.

#### 2) The Uusikaupunki T4 project

The T4 project is to be implemented at a Yara nitric acid plant in Uusikaupunki, T4. According to the application, the plant’s current average level of emissions is 6.59 kg N<sub>2</sub>O / t HNO<sub>3</sub>, and the annual emissions are about 590,000 t CO<sub>2</sub> equivalent units. The catalyst was introduced on 21 September 2009.

#### 3) The Siilinjärvi project

The final project is to be implemented at Yara’s nitric acid plant in Siilinjärvi. According to the application, the plant’s current average level of emissions is 7.69 kg N<sub>2</sub>O / t HNO<sub>3</sub> and the annual emissions are about 357,000 t CO<sub>2</sub> equivalent units. The catalyst was introduced on 26 June 2009.

### **Processing of the application**

#### **The decision of the Ministry of the Environment**

##### 1) The Uusikaupunki T2 project

1. The Ministry of the Environment conditionally approves the Uusikaupunki T2 project as a joint implementation project and authorises Yara Suomi Oy to participate in the project. The approval of the Ministry of the Environment will enter into force if the project receives approval as a joint implementation project from another party to the Kyoto Protocol that meets the conditions for eligibility set at the Conference of the Parties (COP/MOP).
2. As far as the applicant’s Uusikaupunki T2 project is concerned, on the basis of Section 13 of the Act on the Use of the Kyoto Mechanisms, the emissions reduction units can be confirmed as follows:
  - a. Between 1 June 2009 and 31 December 2011, inclusive, nitrous oxide emissions produced insofar as they do not exceed the level 2.5 kg N<sub>2</sub>O / t HNO<sub>3</sub>, calculated as an average of specific emissions during the verification period
  - b. Between 1 January 2012 and 31 December 2012, inclusive, nitrous oxide emissions produced insofar as they do not exceed the level 1.85 kg N<sub>2</sub>O / t HNO<sub>3</sub>, calculated as an average of specific emissions during the verification period
3. Emissions reduction units will not be confirmed for emissions reductions taking place after 31 December 2012.

## 2) The Uusikaupunki T4 project

4. The Ministry of the Environment conditionally approves the Uusikaupunki T4 project as a joint implementation project and authorises Yara Suomi Oy to participate in that project. The Ministry of the Environment's approval will enter into force if the project receives approval as a joint implementation project from another party to the Kyoto Protocol that meets the conditions for eligibility set at the COP/MOP.
5. As far as the applicant's Uusikaupunki T2 project is concerned, on the basis of Section 13 of the Act on the Use of the Kyoto Mechanisms, the emissions reduction units can be confirmed as follows:
  - a. Between 1 June 2009 and 31 December 2011, inclusive, nitrous oxide emissions produced insofar as they do not exceed the level 2.5 kg N<sub>2</sub>O / t HNO<sub>3</sub>, calculated as an average of specific emissions during the verification period
  - b. Between 1 January 2012 and 31 December 2012, inclusive, nitrous oxide emissions produced insofar as they do not exceed the level 1.85 kg N<sub>2</sub>O / t HNO<sub>3</sub>, calculated as an average of specific emissions during the verification period
6. Emissions reduction units will not be confirmed for emissions reductions taking place after 31 December 2012.

## 3) The Siilinjärvi project

7. The Ministry of the Environment conditionally approves the Siilinjärvi project as a joint implementation project and authorises Yara Suomi Oy to participate in it. The approval of the Ministry of the Environment will enter into force if the project receives approval as a joint implementation project from another party to the Kyoto Protocol that meets the conditions of eligibility set at the meeting of the parties.
8. As far as the applicant's Siilinjärvi project is concerned, in accordance with Section 13 of the Act on the Use of the Kyoto Mechanisms, the emissions reduction units can be confirmed as follows:
  - a. Between 1 June 2009 and 31 December 2011, inclusive, nitrous oxide emissions produced insofar as they do not exceed the level 2.5 kg N<sub>2</sub>O / t HNO<sub>3</sub>, calculated as an average of specific emissions during the verification period
  - b. Between 1 January 2012 and 31 December 2012, inclusive, nitrous oxide emissions produced insofar as they do not exceed the level 1.85 kg N<sub>2</sub>O / t HNO<sub>3</sub>, calculated as an average of specific emissions during the verification period
9. Emissions reduction units will not be confirmed for emissions reductions taking place after 31 December 2012.

## Grounds

### Joint implementation based on the Kyoto Protocol

According to Article 6, Paragraph 1 of the Kyoto Protocol, any party included in Annex I of the Framework Convention on Climate Change may transfer to, or acquire from, any other such party emission reduction units resulting from projects aimed at reducing anthropogenic emissions by sources, or enhancing anthropogenic removals by sinks, of greenhouse gases in any sector of the economy.

In a community implementing a system of emissions trading for greenhouse gases and according to Article 11b, Paragraph 1 of Directive 2003/87/EC (elsewhere, 2004/101/EC), issued as a revision to Council Directive 96/61/EC (hereafter, 'the Emissions Trade Directive'), Member States shall take all necessary measures to ensure that baselines for project activities, as defined by subsequent decisions adopted under the UNFCCC or the Kyoto

Protocol, undertaken in countries having signed a Treaty of Accession with the European Union fully comply with the *acquis communautaire*, including the temporary derogations set out in that Treaty of Accession.

According to Section 3, Paragraph 11 of the Act on the Use of the Kyoto Mechanisms (109/2007), ‘emissions reduction unit’ (ERU) refers to a unit generated by a project implemented in the territory or exclusive economic zone of an Annex I Party that is issued pursuant to Article 6 of the Kyoto Protocol and relevant decisions by the COP/MOP, and that is equal to one metric tonne of carbon dioxide equivalent.

In 2005, by virtue of Article 6, Paragraph 2 of the Kyoto Protocol, the COP/MOP approved decision 9/CMP.1, which concerns the guidelines for the application of Article 6. According to paragraph 23 of the annex to that decision, a host party referred to in Annex I of the UNFCCC, that is cited as having an emissions reduction obligation in Annex B of the Kyoto Protocol, and that meets the criteria listed in paragraph 21 of the above-mentioned annex may verify reductions in anthropogenic emissions by sources or enhancements of anthropogenic removals by sinks from an Article 6 project as being additional to any that would otherwise occur.

The Finnish state meets the conditions referred to in Paragraph 21 of the annex to decision 9/CMP.1 and therefore may verify reductions in greenhouse gas emissions or additions to carbon sinks caused by a joint implementation project in its area.

#### The Act on the Use of the Kyoto Mechanisms and the Ministry of the Environment Decree on Joint Implementation Projects

The Act on the Use of the Kyoto Mechanisms (109/2007) creates an administrative framework for participation in project activities based on the Kyoto Protocol. According to the first paragraph of Section 4 of that act, pursuant to Article 6 (1a) of the Kyoto Protocol, any decision on the approval of a project to be issued in the name of the state of Finland is made by the Ministry of the Environment.

According to the first paragraph of Section 9 of the act, approval by the state of Finland of a project to be implemented in its territory or the exclusive economic zone of Finland as a joint implementation project may be granted upon application if: 1) the country or countries intending to participate in the project are parties to the Kyoto Protocol with a quantified emissions limitation and reduction commitment inscribed in Annex B of the protocol; 2) the applicant is a legal person domiciled in Finland; 3) the applicant has solid financial status and has a genuine opportunity to participate in the project in other respects; 4) in terms of its contents, the project meets the requirements set under the Kyoto Protocol, the relevant COP/COM decisions, and Article 11 b (6) of the Emissions Trading Directive and it can also be deemed practicable in other respects; 5) the project can be implemented in accordance with the legislation applied in Finland; and 6) an acceptable plan exists for monitoring emissions occurring within the scope of the project and for verifying the emissions reductions generated by it. This list is not exhaustive; it states only the requirements that must always be met if approval is to be granted. According to grounds presented by the Finnish Government (HE 108/2006, p. 34), the act does not prevent the Ministry of the Environment from also applying other justifiable criteria when rendering approval decisions for projects.

Section 4 of the Ministry of Environment Decree on Joint Implementation Projects (913/2007) prescribes the content of an application concerning the approval of a joint implementation project carried out in Finland. The Ministry of the Environment declares that the application dealt with here meets the requirements based on Section 9 of the act and Section 4 of the Ministry’s decree. According to Section 9, Paragraph 2 of the act and Section 4, Paragraph 4 of the decree, approval must be granted conditionally. It enters into force when at least one of the countries participating in the project approves the project as a joint implementation project.

According to Section 13, Paragraph 1 of the Act on the Use of the Kyoto Mechanisms, the Ministry of the Environment shall take any decisions on the issuance of emissions reduction units generated by a joint implementation project carried out in Finland and shall also decide on the issuance of these emissions reduction units to the party holding account in the national registry by converting an equal number of assigned quantity units or removal units held in the account into emissions reduction units.

According to a government proposal, the approval of a project implemented in Finland must be based on appropriate consideration and, in the consideration of such approval, attention must also be paid to how great a proportion of the emissions reductions implemented would remain for the benefit of Finland (HE 108/2006, p. 34). In making a decision on the approval of a joint implementation project carried out in Finland or in its exclusive economic zone, the Ministry of the Environment must evaluate to what extent an emissions reduction is achievable, in comparison to a level that could otherwise be justified as achievable so that emissions reduction units could be confirmed from emissions reduction to the same extent. On the other hand, emissions reduction units cannot be confirmed, even if, compared to the certain process of events of a project (e.g., historical emissions), a project did result in emissions reductions. Comparison with historical emissions is not based on a matching principle in all respects, as it can reward business practitioners whose unit-specific emissions from production were already high.

### The assessment of achievement

In its application, the applicant proposed the so-called benchmark emissions value as the basis for assessment of achievement of reductions. When a benchmark emissions value is used, emissions reduction units are confirmed to the extent that the emissions do not exceed a specifically defined benchmark value. In applications, the benchmark value should be the same for all plants. The applicant suggested 2.5 kg N<sub>2</sub>O / t HNO<sub>3</sub> as a benchmark value for the years 2009–2011 and 1.85 kg N<sub>2</sub>O / t HNO<sub>3</sub> for 2012. The Ministry of the Environment declares that the benchmark emissions value proposed by the applicant does not exceed historical emissions at any plants.

In the view of the Ministry of the Environment, a good basis for assessing achievement is application of criteria that are based as far as possible on a matching principle. Another yardstick should be that business practitioners be treated as equally as possible, and it should also be generalisable, so that it is applicable to the same types of cases in the future.

The Ministry of the Environment notes that the European Communities' Commission (hereafter 'the Commission') has decided to use, as such a yardstick, best available technology (BAT) in its decision (C(2008) 7867) issued on 17 December 2008 by virtue of the Greenhouse Gases Emissions Trading Directive, 2003/87/EC.

The Ministry of the Environment further notes that, according to Article 16, Paragraph 2 of Council Directive 2008/1/EC, on integrated pollution prevention and control (hereafter 'the IPPC Directive'), the Commission will organise the exchange of information about the best available technology in EU member states, its monitoring, and its development among interested industries.

Based on this exchange of information, comparative documents will be prepared. The comparative document for application of the IPPC Directive concerning the manufacture of non-organic-basic chemicals (ammonia, acids, and fertilisers) (hereafter 'the BREF document') was approved on 30 August 2007 (EUVL C 202/2 30.8.2007, p. 2). According to the BREF document, the best available level of technology (hereafter, 'BAT level') for existing plants is 0.12–1.85 kg N<sub>2</sub>O / t HNO<sub>3</sub> or 20–300 ppmv.

In the BREF document, the BAT level is partly contested by industry and one EU member state. In the view expressed, the BAT level for existing plants is deemed also to include 2.5 kg N<sub>2</sub>O / t HNO<sub>3</sub> as an upper emissions value. In preparation of the BREF document, the technology used was deemed to be still under development, although even then it was already available on the market.

As far as the Uusikaupunki T2 and T4 projects that are subjects of the application are concerned, the environmental permit of the Uusikaupunki plant (Environmental Permit Office of Western Finland no. 85/2008/2, doc. no. LSY2004Y398 and no. 86/2008/2, doc. no. LSY2007Y382) states that the nitrous oxide content of the exhaust gases from the T2 and T4 nitric acid plants in undiluted exhaust gases must, from 1 January 2011, be no more than 400 ppmv as a monthly average. The decision contains a condition according to which the obligations laid down in the Emissions Trading Act (683/2004) replace the permit regulations issued in the decision concerning nitrous oxide emissions from nitric acid plants and their control, if nitrous oxide falls within the scope of the emissions trading referred to in the Emissions Trading Act, as far as nitric acid plants are concerned. The Ministry of the Environment states that the limit value of 400 ppmv corresponds to about 2.5 kg N<sub>2</sub>O / t HNO<sub>3</sub>. The Ministry of the Environment also states that, according to the Emissions Trading Directive, the nitrous oxide emissions from nitric acid plants will not come within the scope of emissions trading until after 1 January 2013.

The environmental permit of the Siilinjärvi plant (Environmental Permit Office of Eastern Finland no. 79/06/2, issued on 6.10.2006, and Vaasa Administrative Court 07/0387/1, issued on 7.11.2007) does not require a reduction in N<sub>2</sub>O emissions during the years 2009–2012. According to the environmental permit, the possibilities for reducing nitrous oxide emissions to correspond to the emissions level achievable via the best available technology must be examined. Such examination must always be done in conjunction with process changes. A techno-economic report and plan of the required procedures should be included in the permit regulation revision application. Application for the revision of permit regulations must be made by 31 March 2015.

On the basis of the above, the Ministry of the Environment has decided to approve the applications-based benchmark emissions value in the assessment of compliance of all three nitric acid projects.

### **Applicable legal provisions**

Act on the Use of the Kyoto Mechanisms (109/2007), Section 9

Ministry of the Environment Decree on Joint Implementation Projects (913/2007), Section 4

### **Notification of the decision**

Decision by advice of receipt

Yara Suomi Oy PO Box  
900, 00181 Espoo

### **Payment**

A fee of €2,236.00 is payable for this decision as prescribed in the Ministry of the Environment Decree on Charges (1142/2009), Section 2. The payment consists of 26 hours' work by experts at €86 per hour. An invoice for payment will be issued separately.

### **Appeal**

Appeal against this decision may be lodged by appealing to the Supreme Administrative Court. The decision may be appealed against on the basis of the decision being unlawful. A request for rectification concerning payment for the decision may be made to the Ministry of the Environment. The associated instructions are appended.

APPENDICES: Instructions for appealing against a decision and requesting rectification of the decision from the Ministry of the Environment.

## APPENDIX

**INSTRUCTIONS FOR APPEAL****Appeal authority**

Anyone who is dissatisfied with this decision may appeal in writing to the Supreme Administrative Court. Any petition of appeal must be delivered to the Registry of the Supreme Administrative Court within the appeal period.

**Appeal period**

The petition of appeal must be submitted to the appeal authorities no later than 30 days from receipt of the decision, excluding the date of receipt. The appeal must reach its destination during office hours, no later than 4:15pm. If the last day of the period for request for rectification is a Sunday, a Saturday, Independence Day, May Day, Christmas Eve, or Midsummer's Eve, the appeal period is extended until the following working day.

**Content of the appeal**

The petition of appeal must indicate:

- the name and domicile of the appellant
- the postal address and telephone number to which notices to the appellant concerning the matter may be sent
- the decision that is being appealed, the specific items in the decision that are being appealed, the amendments required to be made, and the grounds upon which the appeal is being made

If the right of action of the appellant is exercised by his or her legal representative or agent, or if the author of the appeal document is other than the appellant, the petition must also supply the name and address of this person.

The petition of appeal must be personally signed by the appellant or by his or her legal representative or agent.

**Appendices to the petition of appeal**

The following must be appended to the petition of appeal:

- the decision by the Ministry of the Environment, as the original document or a copy
- the agent's power of attorney, if the appeal has been drawn up by an agent authorised by the appellant
- documents to which the appellant is appealing in support of his or her demands, if they have not already been delivered to the authorities

**Delivery of the petition of appeal**

The petition of appeal may be taken by the appellant in person or by an agent authorised by him or her. It may be sent, on the sender's own responsibility, by post, courier, or e-mail. The petition of appeal must be submitted in good time, to ensure that it is received before the end of office hours on the last day of the appeal period.

The appellant will be charged a sum of €223 at the Supreme Administrative Court for court proceedings (VNA 924/2008). The Act on the Charges for the Performances of the Courts and Certain Organs of Judicial Administration (701/1993) prescribes certain cases in which payment is not charged.

**Supreme Administrative Court**

Postal address: PO Box 180, 00131 Helsinki  
 Visiting address: Unioninkatu 16, 00130 Helsinki  
 Telephone  
 switchboard: 010 36 40200  
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## APPENDIX

**INSTRUCTIONS FOR A REQUEST FOR RECTIFICATION**

If a party liable to pay considers an error to have occurred in setting the payment, may that party request rectification from the Ministry of the Environment.

The request for rectification must be delivered to the Ministry of the Environment within six months of the payment being set. It must state:

- the name, domicile, and postal address of the claimant
- the request to change the payment
- the grounds for the request for rectification

The request for rectification must be personally signed by the claimant or the author of the request. If only the author has signed the request, the author's name, domicile, and postal address must be given.

A document justifying the setting of the payment must be appended to the request for rectification, as the original document or a copy.

The request may be sent, on the sender's own responsibility, by post or by courier. The request must be submitted in good time, to ensure that it is received before the end of office hours on the last day of the period for requests for rectification.

The Ministry of the Environment

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