



**Summary of the Audit Report
of the Supreme Audit Office of the Slovak Republic
on Management and Utilization of State Financial Means Allotted
for Air and Ozone Layer Protection and Implementation of Related
International Agreements**

**Coordinated Audit of Air and Ozone Layer Protection
and Implementation of Related International Agreements**

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1 Introduction

The audit mission was to verify the adherence to legal regulations in the course of use of the state budget funds allotted for air and ozone layer protection and execution of international obligations.

The audit period addressed the years 2005 and 2006.

The Supreme Audit Office of the Slovak Republic (hereinafter referred to as SAO SR) **carried out the audit in the following auditees:**

- Ministry of Environment of the Slovak Republic (hereinafter referred to as ME SR)¹
- Slovak Inspectorate of Environment (hereinafter referred to as SIE)²
- Environmental Fund (hereinafter referred to as EF)³
- Slovak Hydrometeorological Institute (hereinafter referred to as SHI)⁴

2 International Obligations of the Slovak Republic in the Field of Air and Ozone Layer Protection and their Fulfillment, Meeting the Related Limits and Targets

1. Convention on Long-range Transboundary Air Pollution
2. Vienna Convention for the Protection of the Ozone Layer and Montreal Protocol
3. United Nation Framework Convention on Climate Change and Kyoto Protocol
4. EU directives relating to air protection

2.1 Convention on Long-range Transboundary Air Pollution

The Convention on Long-range Transboundary Air Pollution (hereinafter referred to as CLRTAP) was signed in Geneva in 1979 and has been amended by eight protocols.

The Slovak Republic (hereinafter may be referred to as SR) adopted CLRTAP on May 28, 1993. In compliance with CLRTAP and its protocols, SR is obliged to submit the results of emission inventory on selected air pollutants. The emissions are processed on the nationwide level in cooperation with external experts. Activities (amount of production) for the emission calculation are conciliated directly from the NEIS database (National Emission Inventory System) from operators or from the waste database.

¹ is a state authority responsible for formulation of national policy in the field of air and ozone layer protection; development of strategic documents and legal instruments on their implementation is in its competence

² is a specialized supervisory authority providing the state supervision and imposing fines on the matters concerning environment protection and carrying out the municipal administration in the field of integrated prevention and control on matters concerning environmental pollution

³ is an autonomous corporate body governed by ME SR; established to carry out state assistance in the field of environment protection; main source of its income: fees, fines and penalties for environmental pollution; allocation and use of its funds has to be in compliance with priorities and objectives of the state environmental policy strategy approved by the Government of the Slovak Republic

⁴ is an allowance organization of the ME SR; provides climate and meteorological information on quality of environment; responsible for evaluating and monitoring quality of environment

2.2 Vienna Convention for the Protection of the Ozone Layer and Montreal Protocol

The Vienna Convention for the Protection of the Ozone Layer (hereinafter referred to as Vienna Convention) assigned general measures on ozone layer protection to be undertaken by its signatory parties. This document entered into force for SR on January 1, 1993.

Vienna Convention has been followed by the Montreal Protocol on Substances that Deplete the Ozone Layer and its five amendments.

SR does not produce any of the regulated substances nor products manufactured or operated by any of the regulated substances.

- Fully halogenated chlorofluorocarbons (CFCs) – consumption has been eliminated since January 1, 1996. The use is possible only in compliance with the valid exemption concerning laboratory and analytical purposes.
- Halons – can be found in existing fire protection systems, fire extinguishers and fire equipment in accordance with the allowed exemption for the critical use of halons in sectors where no adequate alternative exists so far (aviation, army, petrochemical sector). In SR there are about 1,578 kg of halons in fire extinguishers for critical use purposes. The use in other cases has been eliminated since January 1, 1994.
- Methyl bromide – the use has been prohibited by the Act No. 76/1998 Coll. on ozone layer protection as amended (hereinafter referred to as Ozone Layer Protection Act) since January 1, 2001. SR was among the first countries to eliminate its use in 1999 (the Regulation 2037/2000/EC of the European Parliament and of the Council on controls of ozone-depleting substances – hereinafter referred to as Regulation 2037/2000/EC – stipulates the prohibition term since January 1, 2005).
- In addition, in 2006 SR eliminated the use of inhalants containing fully halogenated CFCs for asthmatics.

SR annually submits the respective reports to the European Commission in compliance with the Regulation 2037/2000/EC. The report was sent by SR on July 11, 2006.

2.3 United Nation Framework Convention on Climate Change and Kyoto Protocol

The United Nation Framework Convention on Climate Change (hereinafter referred to as UNFCCC) was adopted in 1992 with the aim to stabilize atmospheric concentration of greenhouse gases (GHGs) to a safe level. Currently, there are 185 countries or international communities that are parties to UNFCCC. In 1997 the parties of UNFCCC agreed to endorse the Kyoto Protocol (hereinafter referred to as KP) that defined the reduction objectives and instruments to achieve them. SR committed to an 8% reduction of GHG emissions compared to the base year 1990 in the period 2008 – 2012.

UNFCCC entered into force for SR on November 23, 1994. SR ratified KP in 2002 and it entered into force on February 16, 2005. The legislative measures that led to the reduction or contain potential to lead to the reduction of GHG emissions were taken, e.g.

acts on air protection, on emission trading, on environmental fund, on energy, on regulation in energy sector, etc.

The National Focal Point (hereinafter referred to as NFP) at ME SR is the key expert and legal guarantor for the achievement of commitments and requirements of UNFCCC and KP.

2.4 Implementation of EU Directives Relating to Air Protection

1. Council Directive 96/62/EC of 27 Sept. 1996 on ambient air quality assessment and management;
2. Council Directive 1999/30/EC of 22 Apr. 1999 relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air;
3. Directive 2000/69/EC of the European Parliament and of the Council of 16 Nov. 2000 relating to limit values for benzene and carbon monoxide in ambient air;
4. Directive 2002/3/EC of the European Parliament and of the Council of 12 Feb. 2002 relating to ozone and ambient air;
5. Directive 2004/107/EC of the European Parliament and of the Council of 15 Dec. 2004 relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.

Full transposition of the directives in the points no. 1. – 4. was ensured by the Act No. 487/2002 Coll. on air protection as amended (hereinafter referred to as Air Protection Act) and ME SR Regulation No. 705/2002 Coll. on air quality and ME SR Regulation No. 408/2003 Coll. on emission and air quality monitoring.

- **Directive 2004/107/EC – in the time of audit the transposition was in progress.**

Member States should have transposed the Directive by February 2, 2007. The amendment of the Air Protection Act transposing the Directive was adopted and published in the Collection of Laws under the number 203/2007. In addition, the Directive was transposed by the amendment of ME SR Regulation No. 705/2002 Coll. on air quality.

Shortcomings were detected mainly in:

- **SR does not meet** the limit values for PM₁₀ particles and O₃.
- National Monitoring Network on Air Quality is insufficient, SR does not monitor Hg, does not meet the requirements concerning the minimum number of monitoring stations in the respective areas and does not fulfill the conditions of data extraction.
- A proposed new directive restricts terms of meeting limit values and implements limit values on PM_{2.5}. This directive requires extension of the monitoring program as well as performance of strict measures relating to air quality.

The commitments should have been implemented by the entrance of SR to the European Union (EU) and implementation of new commitments should have followed the schedules determined by the directives. **SR fulfills this obligation partially.**

Implementation of commitments relating to other directives

- Directive **2001/80/EC** of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from large combustion

plants was fully transposed by the Air Protection Act and ME SR regulations No. 706/2002 Coll. and 408/2003 Coll.

SR fulfils main tasks and reports on the implementation of this Directive to the European Commission.

- Directive **2001/81/EC** of the European Parliament and of the Council on national emission ceilings for certain atmospheric pollutants was fully transposed by the Air Protection Act and ME SR Regulation No. 131/2006 Coll.

SR fulfils main tasks; a national program to progressively reduce national emissions of the mentioned pollutants with the aim to reach national emission targets by 2010 at the latest was elaborated.

3 Objections and Principles of the Slovak Republic in the Field of Air and Ozone Layer Protection, Implementation of the International Obligations to National Conditions

The Slovak Government defined its priorities of environmental protection in the Manifesto of the Government of the Slovak Republic. Economic Strategy of the Slovak Republic presents the policy development for the period 2005 – 2013. The strategic goal for 2005 – 2013 is to ensure maximum economical growth under the conditions of sustainable development. The Environmental Policy, in which the main goal is achievement of high environmental quality and improvement of protection and utilization of natural resources and scenery, is a part of the Strategy.

Summary of commitments, targets and obligations of SR relating to CLRTAP and its protocols and their implementation

In 2006 there were 5 stations of National Monitoring Network on Air Quality operating in the territory of SR, serving for monitoring regional air pollution. The measuring program of the stations has operated since 1978. SR met its targets to reduce European sulfur dioxide (SO₂) emissions by 30% compared to the year 1980 by the end of 1993. The actual reduction was at 61.06%.

The target to reduce national annual NO_x emissions or their transboundary effects (obligation – 197 thousand ton, actual amount – 134.696 thousand ton) was achieved. Unleaded fuel became available, thus operation of vehicles equipped by clarifiers was enabled. SR was the 4th country in Europe and 6th country in the world with implemented unleaded fuel.

The target to reduce SO₂ emissions by 60% in 2000, by 65% in 2005 and by 72% in 2010 – all compared to the year 1980 – in fact, SR reached the target of 2000 by 84.94%, the target of 2005 by 89.44% and the reduction by 72% in 2010 is real.

The target to eliminate and reduce national volatile organic compounds (VOC) emissions or their transboundary effects by minimum 30% in 1999 in reference to the base year 1988 was achieved in SR; the actual reduction was at 39%.

The target to reduce total annual emission of heavy metals (cadmium, lead, mercury) in ambient air compared to the year 1990 was achieved in SR.

The target to reduce SO₂ emissions by 80% in 2010, NO_x by 42%, ammonia (NH₃) by 37% and VOC by 6% compared to the year 1990 was reached; whereas the actual SO₂ reduction was at 83.08%, the actual NO_x reduction was at 56%, the actual NO₃ reduction was at 58.57% and VOC at 42.20%.

Vienna Convention for the Protection of the Ozone Layer and Montreal Protocol

Slovak legislation stipulates substances that deplete the ozone layer in the Ozone Layer Protection Act and in ME SR Regulation No. 283/1998 Coll. on execution of the act on ozone layer protection. The amendment of the Ozone Layer Protection Act adopted in October 2000 meant a full transposition of the Regulation 2037/2000/EC of the EP and of the Council on controls of ozone-depleting substances, as amended by Regulations 2038/2000/EC and 2039/2000/EC of the EP and of the Council.

The **Action Program of SR to Progressively Eliminate the Use of Substances that Deplete the Ozone Layer**, which implementation was monitored and updated, was elaborated to ensure fulfillment of respective tasks and obligations. The 1st action program was prepared for the period 1996 – 2000. Following the 1st action program, ME SR submitted to the Government a proposal of the new **Action Program of SR to Eliminate the Consumption of Substances that Deplete the Ozone Layer in 2001 – 2008**, which was approved by the Government in June 2001. At the same time, the Minister of Environment was assigned to report on the Action Program execution to the Government every two years and update and amend the Program when necessary.

United Nation Framework Convention on Climate Change and Kyoto Protocol

The Strategy of SR to Achieve Commitments under the Kyoto Protocol is a comprehensive document that was adopted in 2002. It defines objectives to stabilize and reduce GHG emissions in three time horizons: short-term (by 2002), medium-term (2003 – 2007) aimed to reach the development of GHG emissions that would clearly allow to achieve the KP commitments and to complete the National Inventory System (hereinafter referred to as NIS) in compliance with Art. 5 KP and long-term (2008 – 2020) aimed to reduce GHG emissions in 2008 – 2012 by 8% compared to the year 1990, to establish prerequisites to reduce further in the second target period and to control the GHG emissions development so that stabilization after the year 2015 could be achieved gradually.

Following the Strategy, the proposal of the **Action Plan of Fulfillment of the Kyoto Protocol Commitments of the UNFCCC** has been developed, which has thoroughly analyzed direct and indirect measures in view of their GHG reduction potential, investment intensity and the time horizon to be implemented. These were mainly measures on the energy demand side and measures on the energy supply side.

4 Financing the Air Protection, Use of Budgetary Means, Audit Findings

4.1 Use of Budgetary Means in 2005 – 2006

Within the subprogram “Air Protection,” the budget for the year 2005 amounted to SKK **390,398 thousand**, out of which SKK 100,000 thousand were allotted from the state

budget, SKK 253,911 thousand were allotted from the European Regional Development Fund (hereinafter referred to as ERDF) and SKK 36,487 thousand were co-financed from the state budget. Total expenditures amounted to SKK **183,648 thousand**, which represented 47% of the approved budget and, after the budgetary correction, 100% of the corrected subprogram budget.

Within the same subprogram, the budget for the year 2006 amounted to SKK 672,258 thousand. The budget after corrections amounted to SKK **860,652 thousand**, out of which SKK 109,097 thousand were allotted from the state budget, SKK 324,303 thousand were the EU funds, SKK 169,576 were the government credits, SKK 71,287 thousand were co-financed from the state budget and SKK 186,390 thousand were allocated from the capitol General Cash Administration for ISPA co-financing. Total expenditures amounted to SKK **674,262 thousand**, i.e. 78.34% of the corrected budget. Funds (ISPA) at the sum of SKK **186,390 thousand** were allotted for the modernization of a heating plant in Zilina. The funds **were not used** as a tenderer had not been chosen in the public procurement process by the end of the year.

The EU funds were used for the improvement and development of infrastructure and air protection. **In 2005 and 2006, 32 projects were approved, out of which 11 were physically and financially implemented. Total expenditures cumulated by December 31, 2006 – EU funds and state budget – were at the sum of SKK 574,928 thousand.**

4.2 Slovak Hydrometeorological Institute

Activities of SHI. Creation of the National Inventory System in compliance with Article 5 KP and Decision No. 19/CMP.1.

According to the Art. 5, par. 1 of KP, each Party included in Annex I of UNFCCC shall have in place, no later than one year prior to the start of the first commitment period, a national system for the estimation of anthropogenic emissions (NIS) by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol. According to the Decision 19/CMP, NIS should be designed and operated to ensure the transparency, consistency, comparability, completeness and accuracy of GHGs inventories. In addition, NIS should meet the quality requirements via planning, preparation and management of activities relating to the inventory, implementing uncertainty assessment and quality assurance / quality control (hereinafter referred to as QA/QC) activities. Characteristics, general and specific functions and principles are defined in the Decision 20/CP.7 and Decision 19/CMP.1.

The audit team detected that by December 31, 2006, **NIS partially existed, QA/QC plan was only partially implemented within several sectors; however, institutional, legal and procedural framework was not adopted in full measure. The GHGs inventory process was not certified, accredited and QA/QC system for sector inventories as well as the overall inventory was not implemented.**

According to the Decision 19/CMP.1, „...each Party included in Annex I shall (a) designate a single national entity (SNE) with overall responsibility for the national inventory, (b) make available the postal and electronic addresses of SNE..“

The audit team detected that by December 31, 2006, **SNE was not established. Its tasks were partially carried out by SHI in cooperation with NFP.** SNE is a part of

institutional framework established to provide input data and to report in compliance with the international conventions. It is formally connected to monitoring basic pollutants – NH₃, NMVOC, POPs, heavy metals and PM. **The requirement to establish an independent working unit was not met at the time of audit. The establishment of a working group is regarded to be only a temporary solution.** At the time of audit, a possible transition to an independent department within a new structure of SHI was envisioned. Material, technical and capacity issues (finances, technical equipment, human resources) remained unresolved.

Requirements to ensure and control the estimation of GHGs, including sinks are consistently covered by the Quality Management System (hereinafter referred to as QMS), applicable to the process as a whole as well as its particular components. The extent and requirements of QMS are currently defined, practical execution is anticipated after finalization of all necessary activities in the field of organizational provisions and data archiving system in individual IPCC sectors, including disclosure of information in compliance with 20/CP.7.

4.3 Environmental Fund

In 2005, EF received 1,294 applications for subsidies at the total sum SKK 7,072,551 thousand. 612 applications were successful and granted sum amounted to SKK 1,224,036 thousand. 86 applications were submitted on air and ozone layer protection, out of which 24 applications were successful and granted sum amounted to SKK 33,315 thousand (2.7% of total granted funds). 16 applications were verified by the audit team and it was detected that in three cases the original invoices submitted to EF were not in compliance with the Act No. 431/2002 Coll. on accountancy as amended (hereinafter referred to as Accountancy Act) and in one case the municipality did not act in compliance with the Act No. 523/2003 Coll. on public procurement as amended (hereinafter referred to as Public Procurement Act).

In 2006, EF received 1,255 applications for subsidies at the total sum SKK 6,583,402 thousand. In 2006, no applications for subsidies on credit were submitted. 591 applications were successful and granted sum amounted to SKK 1,469,764 thousand. 57 applications were submitted on air and ozone layer protection, out of which 12 applications were successful and granted sum amounted to SKK 12,500 thousand (0.9% of total granted funds). 7 applications were verified by the audit team and it was detected that in one case EF did not act in compliance with the Act No. 587/2004 Coll. on the environmental fund as amended, whereas EF did not verify completeness of the submitted application and funds were granted on the grounds of incomplete application. In one case an application was not accompanied by the tender documentation in compliance with the Public Procurement Act.

In 2005, EF carried out 5 audits on selected projects in the field of air and ozone layer protection, out of which 2 audits were planned (the subsidies were granted in the period 2002 – 2004) and 3 audits were unplanned. In 2006, EF carried out 3 audits on selected projects in the mentioned field, out of which 2 audits were planned (no infringements of contract conditions nor ineligible use of granted funds were detected).

4.4 Slovak Inspectorate of Environment – Activities in the Field of Air and Ozone Layer Protection

In 2005, air protection divisions of SIE (hereinafter referred to APDs) imposed 163 fines at the total sum SKK 4,594 thousand and in 2006 the number of imposed fines was 127 at the total sum SKK 2,622 thousand. In 2005, 135 imposed fines were reimbursed at the total sum SKK 3,668 thousand. In 2006, 115 imposed fines were reimbursed at the total sum SKK 2,294 thousand. SIE imposed corrective measures to correct shortcomings detected by its audits. In 2005, APDs imposed 154 measures and in 2006 129 measures.

Imposing fines and sanctions in compliance with the Air Protection Act

In 2005, the highest fines were at the sum SKK 1,400 thousand for running an operating unit in conflict with the valid documentation, failing to meet defined emission limits, failing to perform imposed measures; and at the sum of SKK 250 thousand for failing to meet the emission limits. In only 4 cases out of 163 decisions, the sum of the fine exceeded SKK 100 thousand. The lowest fines were imposed in accordance with the Air Protection Act – in 46 cases SKK 10 thousand, in 34 cases SKK 5 thousand, in 18 cases SKK 15 thousand (out of all decisions in accordance with the Air Protection Act). In other 11 cases, the fine was lower than SKK 15 thousand – the lowest imposed fine amounted to SKK 1 thousand.

In 2006, the highest fines were at the sum SKK 200 thousand for failing to meet defined SO₂ emission limits; and at the sum SKK 125 thousand for failing to meet the emission limits and to perform imposed corrective measures. In only 4 cases out of 127 decisions, the sum of the fine exceeded SKK 100 thousand. The lowest fines were imposed in accordance with the Air Protection Act – in 36 cases SKK 10 thousand, in 22 cases SKK 5 thousand, in 14 cases SKK 15 thousand (out of all decisions in accordance with the Air Protection Act). In 6 cases, the fine was lower than SKK 15 thousand – the lowest imposed fine amounted to SKK 2 thousand.

In 2005, SIE initiated a new audit activity in compliance with the Ozone Layer Protection Act. The activity consisted of regulated substances (RS) sample withdrawal for the purposes of analysis. In 2005, 37 audits were carried out, aimed at the compliance with the Ozone Layer Protection Act. In 2006, 24 audits were carried out. In cases of audits aimed at the withdrawal of RS, 33 samples were withdrawn at operators.

In 2005, SIE carried out 37 audits in the field of air protection at operators handling with substances depleting the ozone layer and detected 6 legal infringements. 7 fines amounting to SKK 70 thousand were imposed due to the detected shortcomings and 4 corrective measures. In 2006, 24 audits were carried out and 3 legal infringements were detected. SIE imposed 8 fines amounting to SKK 38 thousand and 3 corrective measures.

5 Emission Trading System

Market mechanisms are one of the means to reach the UNFCCC and KP objectives. In 2003, EU adopted the Directive 2003/87/EC of the EP and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community, which established the European GHG Emission Trading Scheme. The transposition of the Directive was executed by the Act. No. 572/2004 Coll. on emission trading as amended (hereinafter referred to as Emission Trading Act). The scheme

officially started to operate on January 1, 2005 and the first period lasts to December 31, 2007. Distribution of allowances is carried out in compliance with the national allocation plans (NAPs). National Emission Information System (NEIS) database, operated by SHI, served as the bases for individual allocation. Operators annually report on pollutants emissions. Final draft plan included 168 sources of emissions; the plan allocated 30,481,461 tons of CO₂ annually and the allowances for new sources of emissions amounted to 25,324 tons of CO₂ for the period 2005 – 2007 (NAP 1).

The allowances exist only as an electronic record in the National Register of GHG Allowances. Dexia Bank, a.s. acts as the administrator of the register (hereinafter referred to as Administrator). The operation of the register is stipulated in the Commission Regulation (EC) No. 2216/2004 for a standardized and secure system of registries pursuant to the Directive 2003/87/EC of the EP and Council and Decision No. 280/2004/EC of the EP and Council. The Slovak register was connected with EU Central Register on December 22, 2005 and started to operate on December 23, 2005. Reports for the years 2005 and 2006 were sent to the EC.

Emission Trading Act stipulates GHG emission trading in SR and EU, responsibilities of state authorities and the term of recording allocated allowances to the registry. The Administrator records the allowances to the register pursuant to the ME SR instructions annually by February 2.

- **In 2005, allowances were transposed to operators on December 23, 2005.**

The register was prepared and passed the compatibility tests on connection with the Community Independent Transaction Log (CITL) by April 2005. The register was evaluated as prepared for operation. Negotiations with EC were held since June 2005, concerning the corrections of the national allocation plan for 2005 – 2007 (NAP 1). These negotiations were finished on December 20, 2005. Consecutively, allowances were transposed to operators amounting to one third of the total amount quoted in NAP 1, as adopted by the EC.

- **In 2006, allowances were transposed to operators on February 28, 2006.**

Allowances were transposed to operators amounting to one third of the total amount quoted in NAP 1, as adopted by the EC.

6 Conclusion

SR is fulfilling its commitments relating to the international conventions in the area of air and ozone layer protection and there is the real presumption of their future implementation. Execution of measures taken to fulfill commitments relating to the international conventions will have impact on the amount of emissions. SR defined its priorities to reduce GHG emissions by 2020 in the "Strategy of SR to Achieve Commitments under the Kyoto Protocol". **It is necessary to improve cooperation and communication among environment, energy and transportation with regard to the institutional cooperation.**

Environmental legislative and its fiscal instruments play an important role in assessment of possible emission development. The area of air and ozone layer protection is stipulated by the whole system of legal regulations in SR. The effects of legislative measures with direct or indirect impact on GHG emissions also played an important role.