

**The Government of the Murmansk Region**

**The Ministry of Social Development  
of the Murmansk Region**



# **Status of Working Conditions and Occupational Safety and Health in the Murmansk Region**

**Regional Profile**

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**The Regional Profile on OSH has been developed as part of the cooperation of the Ministry of Social Development of the Murmansk region and International Labour Organization Subregional Office for Eastern Europe and Central Asia in accordance with the ILO's 'Outline for compiling regional profile of occupational safety and health', together with the Ministry of Social Development of the Murmansk region (the city of Murmansk) and Research Laboratory of the Federal State Science Entity 'North West Scientific Centre for Hygiene and Public Health of the Federal Agency of Oversight in the Area of Consumers' Rights and Man's Well Being' (the town of Kirovsk). The Regional Profile provides information on the applicable Laws in the area of occupational safety and health (OSH), mechanisms of state policy pursued to enforce OSH, on infrastructure, social partnership connected structures and organizations, on activities of various partners involved in OSH, human resource and manpower, participants and stakeholders, statistic data and indicators related to OSH, general demographic data, problems and implications encountered, as well as on the needs of further development of the region.**

**The contents of the Regional Profile "Status of Working Conditions and Occupational Safety and Health in the Murmansk Region" have been reviewed and approved by the Regional Tripartite Commission for Regulation of Social and Labour Relations.**

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# Contents

<b>Introduction .....</b>	<b>6</b>
<b>1. Regulatory and legislative basis for the OSH system .....</b>	<b>8</b>
1.1. Provisions of the Charter of the Murmansk region on OSH and working conditions .....	8
1.2. Basic regional laws on OSH and working conditions .....	8
1.3. Basic regional applicable regulatory Acts (by Laws) relating to OSH .....	9
1.4. International agreements, signed by the Region, containing specific requirements relating to OSH .....	9
<b>2. Mechanisms of OSH regional policy .....</b>	<b>10</b>
2.1. Basic directions of implementation of the regional policies pursued in the area of OSH in the region .....	10
2.2. Mechanisms of regional law making and regulatory development procedures .....	11
2.3. Agencies and bodies involved in state oversight and control over enforcement of labour legislation and other regulatory acts containing labour law connected norms .....	11
2.4. Development of regional OSH programs .....	11
2.5. Economic methods of providing incentives for employers in the field of OSH.....	13
2.6. Forms of public stimulation and experience sharing in the field of OSH .....	14
<b>3. Mechanisms of social partnership and coordination of activities .....</b>	<b>15</b>
3.1. Regional level .....	15
3.2. Territorial (municipal) level .....	18
3.3. Corporate level/employers level .....	18
3.4. Public control procedures .....	19
<b>4. OSH system organization: means and bodies involved .....</b>	<b>20</b>
4.1. State bodies and agencies, whose duties and responsibilities cover OSH issues .....	20
4.1.1. Regional administration bodies .....	20
4.1.2. Territorial (regional) departments of federal oversight and control agencies and bodies involved in labour regulating laws enforcement procedures .....	21
4.1.3. Regional departments of social insurance bodies involved in insurance against occupational accidents and diseases .....	22
4.1.4. Territorial (regional) departments of federal bodies responsible for oversight and control over public health, industrial and transport safety and other .....	23
4.1.5. Authorities and functions of municipal bodies involved in occupational safety and health .....	26
4.2. Regional scientific and research and design agencies and offices (institutes, centers, laboratories), involved in occupational safety and health .....	27
4.2.1. State scientific and research and design agencies and offices (institutes, centers, laboratories), involved in occupational safety and health, occupational hygiene on the territory of the Region .....	27

4.2.2.	Non-governmental scientific research and design agencies and offices (institutes, centers, laboratories), involved in occupational safety and health on the territory of the Region .....	29
4.2.3.	Occupational safety and health centers (occupational health services), rendering non-educational services in the field of occupational safety and health .....	29
4.2.4.	Centers of occupational pathology .....	30
4.3.	Vocational training, education, additional training and advanced training courses in occupational safety and health and information and public awareness oriented activities .....	32
4.3.1.	Curricula of higher and post-graduate education. Curricula of additional vocational training implemented by educational institutions and training centers .....	32
4.3.2.	OSH training on the territory of the Murmansk region .....	32
4.3.3.	Training for employees provided by employers .....	33
4.3.4.	Agencies involved in information and public awareness oriented activities .....	35
4.4.	Special scientific, technical and medical establishments involved in various aspects of occupational safety and health .....	35
4.4.1.	Agencies and bodies involved in standardization issues .....	35
4.4.2.	Agencies and bodies involved in insurance issues .....	35
<b>5.</b>	<b>Status of occupational traumatism and occupational diseases .....</b>	<b>36</b>
5.1.	Basics of rating traumatism and disease cases as cases of occupational traumatism and diseases .....	36
5.2.	The current status and dynamic of occupational traumatism and diseases in the Murmansk region .....	36
5.3.	Basic forms of account of occupational traumatism and morbidity .....	40
5.4.	Basic forms of statistical data acquisition .....	41
5.5.	Number of occupational fatalities registered .....	41
5.6.	Number of workers occupied at work places exposed to hazardous working conditions .....	42
5.7.	Assessment of incomplete reporting scale (underreporting) .....	45
<b>6.</b>	<b>Regular activities and continuous work in the field of occupational safety and health: case studies .....</b>	<b>46</b>
6.1.	Regular activities at the regional level .....	46
6.1.1.	Activities and initiatives of trade unions in the field of occupational safety and health .....	46
6.1.	Basics of rating and assessment for occupational traumatism, injury and disease cases .....	46
6.2.	International cooperation .....	47
6.2.1.	World Day for safety and health at work .....	47
6.2.2.	Agreements on cooperation and participation in joint projects with the ILO, WHO and other international organizations or states (their alliances) .....	49
6.2.3.	Activities of ILO occupational safety and health regional and collaborating information centres (ILO/CIS), Activities of WHO centers in the field of occupational safety and health and European OSH Agency Centres. ....	50
<b>7.</b>	<b>Analysis of strong and weak aspects (advantages and disadvantages) of the regional system of occupational safety and health management .....</b>	<b>51</b>
<b>8.</b>	<b>General conclusions with regard to the data of the Regional Profile .....</b>	<b>52</b>
<b>9.</b>	<b>Legal basis and Information resources .....</b>	<b>53</b>
9.1.	List of basic regional laws and by laws in the field of occupational safety and health .....	53
9.2.	List of agreements signed between employees' and employers' associations .....	53
9.3.	List of basic web sites in the field of occupational safety and health and other information resources .....	54
9.4.	List of basic regional periodical publications (journals) covering the issues of occupational and industrial safety and health and relevant issues .....	54
9.5.	List of basic monographs, course and study books, as well as journal articles published in the region covering the issues of occupational safety and health and relevant issues .....	55

<b>10. Description of methods of assessment for various indicators and rates used in the Profile .....</b>	<b>56</b>
10.1. Description of the methodology of statistical method of occupational safety and health analysis, its characteristics and basic indicators .....	56
10.2. Description of the state-of-the-art methodological approach of the statistical analysis of the regional level of OSH, by way of introducing special kinematic characteristics of occupational traumatism (the case study of the Mining and Industrial Complex of the Murmansk region) .....	58
<b>11. General information on the region .....</b>	<b>63</b>
A. General information on the Administration structure in the Murmansk region .....	63
A.1. Information of the Legislative, Executive and Court Power in the Region .....	63
A.2. Administrative division of the region and relevant levels of administration .....	65
B. General data on the economic and human resource status .....	66
B. 1. Demographic data .....	66
B.2. Industries/Sectors/types of economic activities .....	69
B.3. Economic indexes .....	70
<b>12. Other relevant information .....</b>	<b>75</b>
APPENDIX I .....	75
APPENDIX II .....	79

# Introduction

The Murmansk region was founded on May, 28, 1938.

*The location* is the North West of the European part of Russia. Almost all the territory is located on Kola Peninsula, within the Polar circle. It is washed by the Barents and White seas. In the West, it borders on Norway and Finland, in the South – on the Republic of Karelia.

*The area* is 144.9 thousand square kilometers (0.8 % of the territory of the Russian Federation). The biggest length from the West to the East is about 550 km, from the North to the South – 400 km.

*The relief* – mountains, terraces, plateau, plains occupied by marshlands and lakes.

*Climate.* The Murmansk region, located mainly on Kola Peninsula, is situated in the Atlantic and Arctic zone of the moderate climate. It is situated at the border between a vast continental area and the Barents Sea basin, whose South Western part never freezes up thanks to the Gulf Stream.

*The geographical zones* – tundra and taiga.

*Mineral and raw materials* include copper – nickel, ferrous, apatite – nepheline ores, ores of rare metals, mica, kyanite, ceramic raw materials and minerals, etc.

*The Constitutional status.* The Murmansk region is a subject of the Russian Federation and part of the North West Federal area (okrug). It has its own Government, Charter and Laws. The legislative power in the region is exercised by the Murmansk regional Duma, executive power – by the Governor and the Government of the region. The system of the regional bodies of executive power is headed by the Governor of the region, who is the chief executive person of the Murmansk region.

*The administrative-territorial system.* As of early 2009, the region included: the City of Murmansk (regional center), 5 districts, 13 cities of regional subordination, 3 cities of district subordination, 12 urban settlements, 6 settlement administrations (territorial districts), 13 rural administrations (territorial districts).

*Population.* The population size as of 01.01.2009 was estimated to be 842.5 thousand people. The population density is 5.8 people per 1 square meter. In the year 2008, as many as 9.1 thousand people were born in the region, which is by 4.4 % more than in 2007. The natural loss decreased by 17.4 % and totaled 1.03 thousand people.

*The living standards of the population.* In the year 2008, the average per capita income of the population were reported to have been 18.6 thousand rubles per month. The real money income, price index adjusted, exceeded the previous year level (year-on-year level) by 6.7 %.

The Murmansk region is an industrialized region having specific labour conditions, complex impact made by the production and climate and geographic factors typical for the Far North regions. The characteristics of the regional industries are reflected in the following kinds of economic activities: mining and chemical, ferrous and non-ferrous metallurgy, power generation, fish industry, defense (military industrial), all types of transport (sea, rail road, automotive and aviation), and construction. *Industrial production.* In January and September of 2008, the industrial production tended to grow, with the 2007 year-to-year growth rates being exceeded considerably. In October, hit by the global financial and economic crisis, the growth rates slowed down, and in November–December, estimated as the 2007 year-to-year rate, the industrial output dropped considerably.

As a result, the total annual index of industrial production was registered at 97.3 %, including the types of economic activities: mining operations – 92.5 %, manufacturing activities – 97.9 %, electricity power, gas and water generation and distribution – 100.4 %.

In the mining sectors, the amount of commodities, services and works rendered and produced in the region was reported to have totaled 60.3 billion rubles (170.3 % to the year 2007 in the established prices), in the manufacturing sectors – 51 billion rubles (81.1 %, which is explained by the near double drop in the prices for nickel, as compared to 2007), electricity, gas and water generated and distributed to the amount of 29.8 billion rubles (116 %).

To greater extent, the crisis hit the entities and facilities of the mining sectors, which was predetermined, first and foremost, by a lower demand for their production, both on the global and domestic markets.

In December, as compared to November, the situation at the mining facilities became better, the production volumes grew 1.5 as high.

Over the year, the production facilities of the region manufactured 10.1 million tons of iron-ore concentrate (102.1 % to the year 2007), 3.8 million tons of apatite concentrate (90.2 %).

A decline in the production of vermiculite (70.6 %), loparite (94.9 %), brazilite (93.8 %) and nepheline (52.2 %) concentrates, as well as nonmetallic construction materials (95.3 %) was reported.

In 2008, the situation on the labour market was reported to be quite stable.

As of the end of December, the number of economically capable population totaled 494.3 thousand people and decreased by 4 thousand people, as compared to the same period of the previous year. The number of those employed in the regional economy decreased by 0.8 % and totaled 462.3 thousand people.

The prospects for the regional development at present are connected primarily with development of the gas-condensate field and transportation hub.

The Government of the Murmansk region interacts with the JSC “Gasprom”, “Stockman Development AG” and JSC Ltd “Sevmorneftegas” Companies regarding the Stockman Gas-Condensate Field Development Project and construction of the gas liquefaction plant.

The Memoranda on mutual understanding between the Government of the Murmansk region and “StatoilHydro ASA” and “Total” Companies were signed, “Murmanshelf Stroitelstvo” Consortium was established, which comprised more than 40 companies involved in the construction complex of the Murmansk region.

In the year 2008, a decision was taken on earmarking 800 million USA Dollars for the period of 2009-2010, into the project works covering the Stockman Gas-Condensate Field Development Project. The affiliations of the Company in Murmansk and Teriberka were set up.



# 1

# Regulatory and legislative basis for the OSH system

## 1.1. Provisions of the Charter of the Murmansk region on OSH and working conditions

The basic legal and regulatory act of the Murmansk region as a Subject of the Russian Federation the Charter (Fundamental Law) of the Murmansk region (Charter hereinafter), which regulates the most important issues of the vital activities of the population in the region – human rights and civil freedoms, legal regulation pertaining to the legal authority of the Murmansk region and joint authority of the Russian Federation and Murmansk region, building up of the state power structure, forms of interaction with the Federal State bodies, procedure of elections to representative bodies, appointment of officials and public officers, etc.

The provisions of the Charter on OSH and public health have been brought together in the 12-th Chapter entitled ‘Social protection, occupational safety and health, environmental protection’.

Pursuant to Article 51 of the Charter, in the Murmansk region the right to social protection, occupational safety and health, safe environment and protection against hazardous impact made by emergency situations of natural and manmade nature is guaranteed.

## 1.2. Basic regional laws on OSH and working conditions

On April, 26, 2008, the Law of the Murmansk region dated from April, 16, 2008, No. 954-01-ZMO ‘On State Management of Occupational Safety and Health on the Territory of the Murmansk Region’ (Law hereinafter) was passed. The complete text of the Law is given in Section 13 (Appendix I) of this Profile.

This Law was elaborated according to Articles 6, 210 and 216 of the Labour Code of the Russian Federation, with account of the proposals made by the parties involved in the social partnership: Murmansk Regional Trade Unions Council and Association of Industrialists and Entrepreneurs (Employers) of the Murmansk region, with the aim of improvement of the system of OSH state management in the Murmansk region.

The Law determines aims and basic tendencies of the state management of occupational safety and health in the Murmansk region, authority of the executive bodies of the state power of the Murmansk region and other bodies, as well as their interrelations in this area of management.

### **1.3. Basic regional applicable regulatory Acts (by Laws) relating to OSH**

#### **LIST of regulatory legal Acts relating to OSH developed and approved in the Murmansk region**

- Ordinance issued by the Governor of the Murmansk region dated from 07.06.1999 No. 242-PG “On Occupational Activities at Cold Time on the Territory of the Murmansk region”;
- Ordinance issued by the Governor of the Murmansk region dated from 15.06.2000 No. 254-PG “On Personal Protection Equipment for Employees of Entities and Organizations of the Murmansk Region”;
- Ordinance issued by the Government of the Murmansk region dated from 13.07.2006 No. 273-PP/7 “On the Regional Target Program “Improvement of OSH and Work Conditions in the Murmansk Region” for the period of 2007–2008”;
- Ordinance issued by the Government of the Murmansk region dated from 23.05.2007 No. 241-PP “On the Regional Interdepartmental Commission for Occupational Safety and Health”;
- Ordinance issued by the Government of the Murmansk region dated from 28.05.2007 No. 256-PP “On the Regional Contest Reviews for the Best OSH Oriented Activities”;
- Ordinance issued by the Government of the Murmansk region dated from 24.09.2008 No. 457-PP “On the Administration Regulation of the Committee for Labour and Social Development of the Murmansk Region in Rendering the State Service “The State Expertise of Working Conditions”;
- Order issued by the Ministry of Social Development of the Murmansk region dated from 06.02.2009 No. 33 “On Approval of the Ministerial Target Program «Improvement of Working Conditions and Occupational Safety and Health in the Murmansk Region for the period of 2009 – 2010”.

In more detail, the account of the mentioned Documents is given in the following sections of the Report submitted and in appendixes thereto.

### **1.4. International agreements, signed by the Region, containing specific requirements relating to OSH**

International cooperation of the region covering OSH is based mainly on the interrelations with the International Labour Organization Subregional Office for Eastern Europe and Central Asia (Moscow) and the ILO OSH Project (Saint Petersburg). At present, no international agreements signed by the Murmansk region containing any OSH requirements are available.

# 2

## Mechanisms of OSH regional policy

### 2.1. Basic directions of implementation of the regional policies pursued in the area of OSH in the region

One of the basic tendencies of the state and regional policies in the area of OSH is the priority of preservation of employees' life and health. This is specified in the Charter of the Murmansk region (Chapter 12 'Social Protection, occupational safety and health of the population, environmental protection') and Law of the Murmansk region dated from 16.04.2008 No. 954-01-ZMO «On State Management of Occupational Safety and Health on the Territory of the Murmansk Region», according to which state management of occupational safety and health on the territory of the Murmansk region is exercised, pursuant to the applicable Laws, by the Federal bodies of executive power, Government of the Murmansk Region and executive body of the state power of the Murmansk Region, authorized in the area of occupational safety and health, as part of their authority, in interaction with the local government bodies of the Murmansk region municipalities, associations of trade unions, in the person of the Murmansk Regional Council of Trade Unions, associations of employers, in the person of the Association of Industrialists and Entrepreneurs (Employers) of the Murmansk region.

Article 4 of this Law determines aims and basic tendencies of the state management of occupational safety and health on the territory of the Murmansk region:

1. The aim of state management of occupational safety and health on the territory of the Murmansk region is to provide safe working conditions at jobs, lower occupational traumatism and occupational morbidity in the Murmansk region.

2. Main trends of exercising state management of occupational safety and health on the territory of the Murmansk region are:

- Implementation of state policies pursued in the area of occupational safety and health;
- Support in securing, as the highest priority, preservation of life and health of employees during their occupational activities and exercising their rights to labour that meets occupational safety and health requirements;
- Development and implementation of a set of managerial and other actions aimed at improvement of occupational safety and health and working conditions, prevention of occupational traumatism and occupational morbidity in the Murmansk region;
- Interdepartmental coordination in the area of state management of OSH on the territory of the Murmansk region;
- Interaction and coordination of actions involving the subjects of occupational safety and health state management in the Murmansk region and local government bodies, employers, associations of employers, trade unions, associations of trade unions and other representative bodies authorized by employees;
- Realization of state expertise of working conditions;

- Support to public control over employees' rights and legitimate interests in the area of OSH;
- Dissemination of the state-of-the-art experience aimed at improvement of OSH conditions;
- Development of interregional and international cooperation in the area of occupational safety and health;
- Other tasks in the area of OSH state management.

## **2.2. Mechanisms of regional law making and regulatory development procedures**

The legal basis of the OSH state management on the territory of the Murmansk region is the Constitution of the Russian Federation, the Labour Code of the Russian Federation, Federal Laws and other regulatory acts of the Russian Federation, the Charter of the Murmansk region, Law 'On State Management of Occupational Safety and Health on the Territory of the Murmansk Region' and other Laws of the Murmansk region, regulatory legal Acts issued by the Governor of the Murmansk region, Government of the Murmansk region.

The authority of the legislative power of the region – Murmansk Regional Duma pertaining to the area of OSH state management includes passing laws of the Murmansk region, control over their enforcement and enactment on the territory of the Murmansk region.

Sub-legislative legal regulatory acts (by-laws) are passed and enacted by the Governor and the Government of the Murmansk region as part of their authority after the relevant document has been agreed and approved in due order by members of the Government. The document is developed (reviewed and subject to the approval procedures) by the executive bodies of the state power of the Murmansk region.

## **2.3. Agencies and bodies involved in state oversight and control over enforcement of labour legislation and other regulatory acts containing labour law connected norms**

The state oversight and control over enforcement of labour (occupational) laws and other regulatory legal acts containing norms pertaining to labour relations legislation on the territory of the Murmansk region is exercised by the State Labour Inspection in the Murmansk region of the Federal Agency for Labour and Employment.

## **2.4. Development of regional OSH programs**

In the year 2008, the target Program 'Improving occupational safety and health in the Murmansk region' was successfully implemented for the period of 2007–2008, the Program having been approved by the Regulation of the Government of the Murmansk region from 13.07.2006 No. 273-PP/7.

The state Customer had been the Committee for Labour and Social Development of the Murmansk region (from October, 2008, the Ministry of Social Development of the Murmansk region).

The target of the Program was developing a set of measures and activities of legal, social and economic, medical and biological, technical and organizational nature, aimed at implementation of the state policies pursued in the area of OSH improvement.

In order to finance the events under the Program, the 9324 thousand Rubles were spent including those from the regional budget – 1209 thousand Rubles.

All the events planned under this Program had been implemented and completed 100 %, and the main thereof, including those, whose implementation had been financed by the regional budget, were the following:

- As part of the program events, workplace attestation procedures for 878 jobs were performed in 16 social security entities pertaining to the social protection system to the amount of 1000 thousand Rubles. Pursuant to the results of attestation, plans aimed at OSH and working conditions improvement in the entities and organizations of concern were developed;
- The Regulation was prepared on the regional contest reviews for the best OSH focused activities and management thereof, which was approved by the Decree of the Government Murmansk region from 28.05.2007 No. 256 -PP. Such contest reviews had been held annually;
- Recommendations on OSH sections in collective agreements were developed, which were approved in 2007 at a session of the regional tripartite Commission for settlement of social and labour relations;
- Annual reports were prepared and forwarded to the Government of the Murmansk region and Ministry for Health and Social Development of the Russian Federation on the status of working conditions, OSH and occupational morbidity in the Murmansk region;
- The Territorial Office of the Federal Administration of the Federal Agency of Oversight in the Area of Consumers' Rights, together with the Committee for Labour and Social Development of the Murmansk region, had monitored the status of hazardous and dangerous production factors at the production facilities of the Murmansk region in order to perform targeted medical checkups and earlier identification of occupational and production induced pathology;
- Annually, twice a year, sessions of the regional Interdepartmental OSH Commission were held, whereat the urgent issues of OSH and working conditions improvement had been reviewed;
- In order to raise awareness and render assistance to employers and employees on the urgent OSH connected issues, events dedicated to the World Day for Safety and Health, were held annually: “Doors Open Day”, seminars, briefing meetings, expositions of regulatory literature on OSH and personal protection equipment for employees.
- In the year 2007, a regional practical seminar dedicated to the aspect “Social Partnership in OSH Issues Resolution” was arranged and held.
- The most significant OSH connected events and issues were highlighted in the media.

This Program was the fourth target program “Improvement of OSH and working conditions in the Murmansk region” developed and implemented in the period from 1998 on the territory of the Murmansk region. Implementation of the events under these Programs enabled to solve such high priority tasks as assessment of quality of the results of the working conditions attestation at the production facilities and organizations of the region; carrying out attestation in entities and organizations financed by the regional Budget; OSH training for managers and specialists; information, scientific and information and analytical support to the regional OSH management system.

Implementation of the programs has made a positive impact on the status of OSH in the region.

As a result, the region has witnessed a tendency towards a lower number of cases of occupational traumatism and bigger number of workplaces that have been subject to the working conditions attestation procedures.

Over the last five years, the number of workplaces, subject to the working conditions attestation procedures, has increased by 75 thousand.

Since 2000, a permanent decrease of the number of those suffered occupational injuries and traumas has been reported: from 852 people in the year 2000 to 480 in the year 2007, (almost 1.8 times lower).

Since the year 2003, the number of occupational accidents inducing severe consequences and fatalities has been decreasing. The total number of such accidents in the year 2008 decreased, as compared to 2003, 2.2 times (from 168 cases to 76), and the total number of victims – 1.8 times (from 180 victims of occupational accidents to 100).

In the year 2009, the Order issued by the Ministry of Social Development of the Murmansk region from 06.02.2009 No.33 approved a Ministerial target program titled “Improvement of OSH and working conditions in the Murmansk region» for the period of 2009 – 2010”.

The aims under this Program is support to improve OSH and working conditions in the entities and organizations of the Murmansk region, assistance to prevention of occupational traumatism and diseases.

The main part of the budget funds under the Program (more than 77 %) has been planned to be used up for holding working conditions attestation in the entities and organizations financed by the regional Budget.

## **2.5. Economic methods of providing incentives for employers in the field of OSH**

The expenditures incurred by the entities and organizations of the Murmansk region in undertaking events aimed at improvement of OSH and working conditions (according to the data of the territorial body of the Federal Service of State Statistics covering the Murmansk region) are given in the Table below:

<b>Years</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
TOTAL (millions of rubles)	856.5	945.0	990.2	1027.9	1132.8
Per one employee (thousand rubles)	4.3	5.0	5.26	5.29	6.0

The economic mechanism of the stimulation of employers’ activities in the area of OSH is set forth in the Federal Law dated from 24.07.1998 No. 125-FZ “On Obligatory Social Insurance against Occupational Accidents and Diseases” and its essence is in setting for an employer a differential amount of the insurance tariffs (not only depending on the occupational risk class, but also depending on the OSH status – with the respective discounts /bonuses to the insurance tariff).

The main problems that arise during the enforcement of the Federal Law “On the Mandatory Social Insurance against Occupational Accidents and Diseases” dated from 24.06.1998 No. 125-FZ are: the imperfect legal basis in setting discounts and bonuses to the insurance tariffs, large quantity of documents to be submitted by the employers to obtain the discount.

According to the data of the Murmansk’s Regional Department of the Social Insurance Fund, in the year 2008, in the Murmansk region, the amount of insurance premiums paid by entities and organizations in implementation of the mandatory social insurance against occupational accidents and diseases totaled 491 millions 551 thousand Rubles, bonuses were set for 55 organizations to the amount of 8 millions 318 thousand Rubles, discounts for 3 organizations to the amount of 3 million 400 thousand Rubles.



Besides, an insured is eligible to a partial financing of the occupational traumatism and occupational morbidity connected events through the funds of the Social Insurance Fund of the Russian Federation to the amount of 20 % from the insurance amount paid over the year's period that precedes the year of the employer's filing an application with the Fund. In the year 2008, such financing in the Murmansk region was granted to 244 organizations.

In the year 2008, through the funds of the Social Insurance Fund of the Russian Federation, OSH training was provided to 1464 people, from individual categories of the insured workers, to the amount of 3998 thousand Rubles.

## **2.6. Forms of public stimulation and experience sharing in the field of OSH**

Under the program events of the Target Program "Improvement of OSH and Work Conditions in the Murmansk Region for the period of 2007-2008", a regulation on the regional contest review for the best OSH oriented activities was developed, which was approved by the Ordinance issued by the Government of the Murmansk region from 28.05.2007 No. 256-PP.

The Contest for the best OSH oriented activities among enterprises and organizations of the Murmansk region is held with aim of raising awareness of managers in terms of providing safe working conditions at jobs; interaction of the local government bodies of the regional municipalities, bodies of oversight and control, employers, trade unions and other non governmental associations in boosting their activities aimed at prevention of occupational traumatism and diseases, as well as dissemination of the advance experience and methods employed by the Contest winners.

The contest results are summarized at a session of the Interdepartmental Commission for OSH, and then the contest winners and laureates are awarded.

Information on the results of the Contest and winners is posted in media.

Such contests have been held since 2005.

In the year 2007, a regional practical seminar on the aspect "Social partnership in OSH issues resolution procedures" was arranged and held. The seminar was attended by 60 people, including officials of Administrations of the cities located in the region – the town of Severomorsk, the town of Snezhnogorsk, the town of Monchegorsk and the Kolsky district, employers and their representatives, chairmen of trade union committees of the organizations located in the region.

Since 2008, the Murmansk region has been involved in the Project of the International Labour Organization "Improvement of OSH system in the North West of Russia", which is aimed at improvement of the OSH management system at entities and organizations by assessing production risks. The project involved 7 major enterprises of the region, as the "pilot" organizations. Under the Project, the Ministry arranged and held: seminar-conference "The state-of-the-art approaches to OSH management in entities and organizations" and a 2-day international practical seminar on the aspect "Assessment and management of risks in the OSH management modern system at entities and organizations" with official representatives of Nordic Institute of Advanced Training in Occupational Health (NIVA) and the Finnish Institute for Occupational Health (FIOH), and experts of the ILO Moscow Office.

# Mechanisms of social partnership and coordination of activities

# 3

## 3.1. Regional level

The system of regional partnership in the Murmansk region began to be formed since the year 1993, when a one year long Agreement on Social Partnership was signed between the Administration of the Murmansk region and Regional Council of Trade Unions. By the time of signing the third Agreement for the period of 1996-1997, the Association of Industrialists and Entrepreneurs of the Murmansk region joined thereto.

The main aims of the social partnership in the Murmansk region are the following:

- attaining higher well being level and living standards for employees and their family members;
- strengthening the regional economy and rendering the financial situation more stable through higher volumes of the industrial and agricultural production;
- attaining a higher level of employment of labour force and bigger jobs for the population of the region;
- attaining better working conditions and OSH, production processes, medical and sanitary services, health promotion for adults and children;
- developing education and arts in the communities of the Murmansk region;
- prevention and elimination of negative tendencies of social and labour conflicts, including those in public life;
- further development and support to a stronger role of the trade unions and employers' associations, bodies of the state executive power and local government of the Murmansk region as social partners in the social and economic issues resolution procedures.

In the Murmansk region, a regional tripartite Commission was set up aimed at settlement of social and labour relations (Commission – hereafter), which is a permanent acting body. The Commission is comprised by representatives of the trade unions and employers' associations of the Murmansk region, the Government of the Murmansk region (Parties – hereafter).

The order of the Commission's activities and organization is determined by the Law of the Murmansk region dated from 04.11.2002 No. 361-01-ZMO.

The Commission was set up with the aim of coordination of social and economic interests of the Parties involved, collective bargaining and preparing a regional tripartite Agreement signed between the Parties (Agreement – hereafter) as well as for control over implementation of the Agreement. The main tasks of the Commission are the following:

- 1) Collective bargaining and developing the Draft of an Agreement;
- 2) Support to the agreement based settlement of social and labour relations on the regional level and signing industrial agreements;



- 3) Consultations on the issues related to development of law drafts and other regulatory and legal acts of the Murmansk region in the area of social and labour relations, regional programs focused on labour related areas, employment, workforce migration, social security;
- 4) Coordination of positions on the basic directions of social policies;
- 5) Review, at the Parties' initiative, of issues that arise during implementation of the Agreement;
- 6) Dissemination of the experience in social partnership processes, updating the territorial, industrial commissions on settlement of social and labour relations on the Commission's activities;
- 7) Control over implementation of the Agreement, resolution of disagreements, which arise during its implementation, as well as involvement in settlement of the issues arising in connection with industrial agreements, over which no consent has been achieved;
- 8) Studying the relevant international expertise and experience, involvement in events held by the relevant foreign agencies and organizations with the focus on social and labour relations and social partnership.

For the period of 2009 – 2011, a regular Agreement was signed by the parties involved in social partnership. The V Section of this Agreement, which concern labour rights protection, OSH, industrial and environmental safety, specifies the following obligations of the Parties:

*Parties:*

- Develop and improve the regulatory legal basis settling the issues of occupational safety and health, OSH management system, social protection against occupational risks and environmental protection; exercise joint control and efficient interaction in the area of OSH, industrial, environmental safety and health with all the social partners involved at all the levels;
- Consider the protection of employees' rights to health and life preservation as priority direction of the Parties under the Agreement;
- Provide, through the regional interdepartmental OSH commission and local coordination councils, targeted consistent policy aimed at creating safe working conditions, environmental protection, prevention of occupational diseases and accidents;
- Work out regional events that provide for industrial safety at hazardous production facilities during mass protest and strike actions;
- Provide full and reliable information to the population on the status of OSH, occupational traumatism and environmental status in the region;
- Support further development of regional OSH training centers;
- Develop and improve the OSH training system for individual insured employees through implementation of new state-of-the-art forms of training, with account of the industrial characteristics.

*Government:*

- Provides for the state expertise of OSH, including with the aim of assessing quality of the working conditions attestation procedure;
- Provides for implementation of Ministerial target programs aimed at improvement of OSH and work conditions in the Murmansk region;
- Organizes training and knowledge testing in the area of OSH for managers and experts of the region, including for managers and experts involved in small and middle size business companies;
- Consults and methodologically assists individuals and organizations (entities) on the issues of labour regulating laws and OSH.

### *Trade Unions:*

- Exercise public control over enforcement by employers of the employees' rights and vested interests in OSH and environmental safety through technical labour inspections of the trade unions, authorized (trustees) persons (workers' representatives) of the trade union committees;
- Support the working conditions attestation procedures and are involved in the activities of the attestation commissions;
- Consult and train employers and those authorized by the trade union committees in OSH on the issues of OSH and environment protection oriented laws;
- Negotiate, in restructuring and closing down of business entities, making redundant of the staff, over enforcement of employees' labour rights and interests.

### *Employers:*

- Provide for healthy and safe working conditions and OSH at enterprises (organizations);
- Support enforcement of the environment protection oriented laws, procedures of processing and decontamination of industrial and domestic waste, failure free operation of environmental constructions;
- Establish in organizations, which employ more than 50 people and are engaged in industrial production activities, OSH services or appoint the position of an OSH expert, and in organizations employing less than 50 people, provide for agreements signed with experts and organizations rendering OSH related services;
- Provide conditions to exercise control over enforcement of the OSH regulating and environmental protection laws and other regulatory acts by persons authorized by trade union committees, trade union bodies, technical labour inspections;
- Involve representatives of trade union organizations, technical labour inspections in the commissions accepting production sites commissioned into operation and reconstructed;
- Hold in timely manner workplace attestation procedures; work out, in covering the attestation results, arrange events aimed at improvement of employees' working conditions;
- Provide employees with certified personal protection equipment to protect against hazardous and dangerous occupational factors;
- Provide in the collective agreements and contracts for the following:
  - Compensations, in addition to the ones specified by the applicable Laws, to employees employed at jobs with hazardous and dangerous working conditions;
  - Payment for the work time to persons authorized by trade union committees in OSH in order to exercise control over the applicable OSH requirements;
  - Provide conditions for OSH training to individual categories of insured, including those authorized in OSH.

Depending on the area of social and labour relations regulated, agreements are signed: regional, industrial (interindustrial), territorial and others.

The industrial (interindustrial) agreements specify general labour payment conditions, guarantees and compensations to employees engaged in the industry (industries). In the Murmansk region, the following agreements have been signed:

- Between trade unions and state regional entities (enterprises) belonging to the road construction companies active in the region (2006–2008);
- Between the Committee for Education of the region and the Education and Science Employees Trade Union (2006–2008);
- Between the Committee for Culture and Arts and Murmansk Regional Organization of the Russian Trade Union of Cultural Workers (2007–2010);

- Between the Committee of the Unified Trade Union Organization of the Headquarters and Administrations of the Northern Navy and Command Office of the Headquarters of the Northern Navy (2006–2009);
- Between the Committee for Public Health and Murmansk Regional Organization of the Trade Union of Public Health Workers of the Russian Federation (2008-2010);
- Agreement covering institutions of the Regional Chief Administration of the Ministry for Emergencies of Russia (2007-2009);
- Agreement on the Housing and Public Services of the region (2008-2010).

### **3.2. Territorial (municipal) level**

The territorial agreements specify general work conditions, guarantees, compensations and benefits for employees on the territory of a respective municipality.

At present, in the Murmansk region, at the territorial level, agreements have been signed covering the education area only.

### **3.3. Corporate level/employers level**

In order to regulate the social and labour relations in organizations and businesses as part of the social partnership, representatives of employees and employers are involved in collective bargaining on preparation, signing or amendment of collective agreements and are entitled to initiate such kind of negotiations.

The sides and parties to collective bargaining are employees and employers.

Pursuant to Article 50 of the Labour Code of the Russian Federation and Ordinance issued by the Government of the Russian Federation dated from 23.09.2008 No. 454-PP, the Ministry of Social Development of the Murmansk region (the Ministry – hereinafter) arranges a registration procedure for collective agreements and contracts based on the Letter of Advice. In the period of 2006 – 2008, letter of advice based registration of 1277 collective bargaining agreements and 17 contracts was enforced (see table below).

**Number of collective bargaining agreements and contracts registered**

<b>2006</b>	<b>2007</b>	<b>2008</b>
457 (of which 6 agreements)	418 (of which 8 agreements)	402 (of which 3 agreements)

The Ministry has worked out Recommendations on the content of the OSH section of the collective agreements, which in the year 2007 were approved at a session of the Regional Tripartite Commission for Settlement of Social and Labour Relations.

When enforcing a letter of advice based registration procedure, the content of the OSH section is scrutinized to verify its compliance with the OSH state regulatory requirements.

In the year 2008, the OSH section was contained in practically all the collective agreements registered. As a rule, these sections specify the employer’s obligations aimed at improvement of OSH and work conditions, compensations and guarantees for occupational activities in hazardous and (or) dangerous occupational conditions; employees’ obligations aimed at compliance with the OSH

requirements; rights of the OSH enforcement bodies authorized by employees, amounts of financing OSH oriented events undertaken.

It should be noted that in comparison with the preceding years the OSH sections on the relevant documents have improved and expanded considerably. Analysis of the sections proves that both the employers and employees have become more responsible in their treatment of the issues connected with OSH and work conditions.

In enforcing the letter of advice based registration of collective agreements and contracts, the Ministry identifies the conditions detrimental to the status of employees as compared to the labour regulating Laws and other regulatory legal acts that contain labour right norms, and informs thereof the representatives of the sides, who signed the collective agreement, contract, as well as the State Labour Inspection of the Murmansk region, if required.

### **3.4. Public control procedures**

Public control over the status of OSH and working conditions on the territory of the Murmansk region is exercised by the Murmansk Regional Council Of Trade Unions (the Murmansk Oblsovprof – hereinafter), with the Technical Labour Inspection acting as an affiliation thereto.

Technical labour inspectors of the trade unions exercise trade union public control in compliance with the Federal Law “On Trade Unions, their Rights and Guarantees of their Activities” and “Regulation on Technical Labour Inspection”, approved by the Ordinance issued by the Federation of Independent Trade Unions (FNPR) Executive Committee dated from 19.12.2005, No.7-6.

In the entities and organizations proper, public control over the status of OSH is exercised by the employees’ representative bodies (primarily – local trade union organizations) and authorized in OSH of the trade unions. As of today, in the organizations and entities located in the region, where local trade union organizations are active, 1870 authorized persons have been elected.

According to the Technical Labour Inspection of the Murmansk Oblsovprof, in 2008, the trade unions, authorized in OSH and labour technical inspectors have performed as many as 1900 inspection procedures aimed at identification of actual OSH and work conditions, 2107 cases of violation have been identified, during the inspection procedures, 416 notification reports have been issued.

Initiated by employers and (or) employees or their representative bodies, in organizations committees (commissions) for OSH are set up. They comprise, on the parity basis, representatives of the employer and an elected body of the local trade unions organization or another employees’ representative body.

The Committee (Commission) for OSH arranges joint activities involving the employer and employees and aimed at compliance with the OSH requirements, prevention of occupational traumatism and diseases, and also arranges inspections of working and OSH conditions at jobs and informs employees of the results of these inspections. The Committee (Commission) acquires proposals to the OSH section of the relevant collective agreements (contracts).

# 4

## OSH system organization: means and bodies involved

### 4.1. State bodies and agencies, whose duties and responsibilities cover OSH issues

#### 4.1.1. Regional administration bodies

Pursuant to the Law of the Murmansk region «On State Management of Occupational Safety and Health on the Territory of the Murmansk Region», the state management of OSH on the territory of the Murmansk region is exercised in accordance with the applicable Federal Laws by the Federal bodies of the executive power, the Government of the Murmansk region and the executive Body of the state power of the Murmansk region, responsible for OSH, as part of their competence.

The authority of the Government of the Murmansk Region in enforcement of the OSH state management includes:

- In exercising the OSH state management on the territory of the Murmansk region, consistent state policy in OSH is pursued;
- An executive body of the state power of the Murmansk region, functioning in the area of OSH, is designated and its authority is specified;
- Regulatory legal acts in the area of OSH are passed as part of the legal competence thereto;
- Short- and mid-term regional target programs aimed at improvement of OSH and working conditions in the Murmansk region are developed and approved;
- Expenditures are designated to improve OSH and working conditions in the Murmansk region through the funds of the regional Budget;
- A regional tripartite interdepartmental commission for OSH is set up to coordinate the interdepartmental activities in the area of OSH state management;
- Interregional and international cooperation in the area of OSH is secured;
- Other authority in the area of OSH is enforced, which is specified by the applicable Laws of the Russian Federation and Laws of the Murmansk region.

The Executive Body of the state power of the Murmansk region, functioning in the area of OSH, is authorized to act as follows:

- 1) Pursue consistent state policy in the area of OSH;
- 2) Arrange and perform state expertise of the working conditions on the basis of the verdicts ruled by the relevant court agencies, appeals of the executive power bodies, employers, associations of employers, employees, trade unions, their associations, other representative bodies authorized by employees, bodies of the Social Insurance Fund of the Russian Federation with the aim of assessing:
  - Quality of the working conditions attestation procedures,
  - Adequate amount of compensations provided to employees involved in heavy physical jobs, activities in hazardous and (or) dangerous working conditions,

- Compliance of the production sites construction, reconstruction and technical upgrade projects, production and application of the state-of-the-art technologies with the OSH state regulatory requirements,
- Employees' actual working conditions, including in the period, that precedes an occupational accident occurred;

3) Be involved in the inspections performed by the bodies of state oversight and control over enforcement of the labour regulating laws, employees' compliance with the OSH requirements;

4) Support public control over enforcement of the employees' vested rights and interests in OSH;

5) Be involved in investigation of severe occupational accidents, accidents inducing fatality, group occupational accidents in the procedural order specified by the applicable Laws of the Russian Federation, analyze the causes of occupational traumatism;

6) Coordinate OSH training and OSH requirements knowledge test procedures;

7) Interact with the local government bodies (municipalities) based in the Murmansk region regarding the issues of working conditions and OSH improvement on the territory of the respective municipalities;

8) Provide information support on the status of OSH and working conditions on the territory of the Murmansk region;

9) Exercise other authority in the area of OSH determined by the Government of the Murmansk region.

The Executive Body of the state power of the Murmansk region, functioning in the area of OSH, is the Ministry of Social Development of the Murmansk region, which is specified in the Regulation thereof, approved by the Ordinance issued by the Government of the Murmansk region dated from 02.12.2008 No.588 – PP.

The Ministry comprises the OSH, Salary and Social Partnership Unit, which includes an OSH and working conditions sector employing 4 officials.

Interaction in the area of OSH of all the stakeholders and agencies, bodies and organizations involved is coordinated by the Regional Interdepartmental Commission for OSH, whose activities are arranged by the Ministry.

#### **4.1.2. Territorial (regional) departments of federal oversight and control agencies and bodies involved in labour regulating laws enforcement procedures**

The state oversight and control over enforcement of the labour regulating laws and other regulatory legal acts containing norms pertaining to labour rights by all the employers on the territory of the Russian Federation is exercised by the Federal Labour Inspection.

The Federal Labour Inspection is a unified centralized system constituted by a Federal Executive Power body, and its territorial bodies (State Labour Inspections), in the Murmansk region – the State Labour Inspection in the Murmansk region (State Inspection – hereinafter).

The number of state labour inspectors in the Murmansk region, as of the end of 2008, totaled 23 persons, out of whom 10 OSH state inspectors.



In performing its activities, the State Inspection interacts with the Ministry of Social Development of the Murmansk region (with whom an Agreement on Collaboration was signed), Prosecutor's Office, Murmansk Regional Office of the Social Insurance Fund of the Russian Federation, Administration for Technological and Environmental Oversight of the Rostekhnadzor Agency in the Murmansk region, Ministry for Emergencies. The Deputy Chief of the State Inspection – Deputy Chief State Labour Inspector in the Murmansk region (responsible for OSH) is a member of the OSH regional interdepartmental Commission.

The State Labour Inspectors (responsible for OSH), in the course of 2008, performed 572 inspection procedures (comprehensive, thematic and target) checking compliance with the labour regulating laws and other regulatory legal acts containing the labour right norms in the area of OSH, in organizations of all the ownership forms, property rights and types of activities. Among them, 115 pertain to the state type of ownership, 74 – municipal and 383 – to other forms of ownership.

During the inspection procedures, as many as 4191 cases of violation of the labour regulating laws were identified, connected with OSH; 438 instructions on elimination of the violation cases identified were issued; 233 penalties were imposed on officials, legal entities and persons involved in entrepreneurial activities without establishing a legal entity, to the amount of 1392 thousand rubles. The biggest number of violation cases is connected with training and instructing employees in OSH (1124), personal protection equipment provided (422) and working conditions attestation procedures (159).

In covering the results of the inspections performed, as many as 469 meetings with managers, specialists and trade union activists of the organizations covered were held.

In covering the issues of OSH, 85 complaints and other appeal documents filed by individuals were reviewed, 128 individuals were received personally. The 83 occupational accidents were investigated (fatal cases, severe cases, as well as group cases).

#### **4.1.3. Regional departments of social insurance bodies involved in insurance against occupational accidents and diseases**

The basic areas of OSH connected activities taken by the State Entity – Murmansk Regional Department of the Social Insurance Fund of the Russian Federation are the following:

1. Financing preventive actions aimed at reduction of occupational traumatism and diseases and sanatorium-and-spa treatment provided for employees, engaged in occupational activities connected with hazardous and (or) dangerous occupational factors.
2. Establishing discounts or raises to the insurance tariffs for the insured, with account of the OSH status, as part of the obligatory social insurance against occupational accidents and diseases.
3. Involving specialists of the Regional Department in investigation of occupational accidents (severe, fatality inducing and group) and occupational diseases.
4. Financing in-depth medical examination procedures arranged for employees engaged in occupational activities exposed to hazardous and (or) dangerous occupational factors.
5. Involving specialists of the Regional Department in inspection procedures provided by the State Labour Inspection in the Murmansk region regarding compliance with the regulatory legal acts, which contain the labour regulating norms.
6. Financing actions aimed at OSH training provided for individual categories of the insured workers and at control over correct use of the funds earmarked thereof.

These practical areas of activities are regulated by the Federal Law dated from 24.07.1998 No. 125-FZ “On Obligatory Social Insurance against Occupational Accidents and Diseases”, regulatory legal acts issued by the Ministry for Public Health and Social Development of the Russian Federation, Social Insurance Fund of the Russian Federation, local acts of the Regional Department.

#### **4.1.4. Territorial (regional) departments of federal bodies responsible for oversight and control over public health, industrial and transport safety and other**

Rostekhnadzor Administration for Technological and Environmental Oversight for the Murmansk region.

The main tasks of the Rostekhnadzor Administration for Technological and Environmental Oversight for the Murmansk region (Administration – hereinafter) are the following:

1. State oversight and control in the area of environmental protection in the part connected with reduction of the negative anthropogenic impact (including that produced by production and consumption waste treatment);
2. State oversight and control in the area of safe activities connected with natural resources use and their protection;
3. State oversight and control in the area of industrial safety;
4. State oversight and control in the area of safety of electricity and heat generation devices and networks (except for household devices and networks);
5. State oversight and control in the area of hydraulic structures at industrial and energy sites;
6. State oversight and control in the area of safety of production, storage and application of industrial explosives;
7. Licensing and authorization activities, as part of the competence and in due order, state environmental expert assessment.

The Administration is involved in oversight over the status of industrial safety in mining, blasting works, oversight over natural resources use protection, mineral materials processing, environmental and energy generation oversight at the biggest mining enterprises of Russia and Europe. This concerns in particular: JSC “Kolskaya Mining and Smelting Company”, JSC “Olkon”, JSC “Apatite”, JSC “Kovdorsky Kombinat”, JSC “Kovdorslyuda”, JSC Ltd. “Lovozersky Kombinat” and at 33 more enterprises (construction, road construction, municipal and other) involved in processing and production of the leading common raw materials on the entire territory of the Kola Peninsula.

The mining oversight and oversight over natural resource protection at the mining enterprises under control is exercised by 3 mining and technical departments: Kolsky (the City of Murmansk), Kirovsky (the Town of Kirovsk, of the Murmansk region), Pechengsky (the Town of Zapolyarny, of the Murmansk region).

The Administration is also involved in oversight over safe works in prospecting and production of oil and gas at the oil and gas deposit fields of the Arctic seas and Kolguev Isle shelves and platforms. The drilling and testing of oil and gas wells, development and geophysical and perforating and explosive works, oil production are performed by 13 entities, reporting to the Administration. The biggest of them are – the Federal Enterprise “Arcticmorneftegasrazvedka” and JSC “Arcticneft”. In total, the Murmansk Administration controls 513 enterprises, comprising 15428 sites.



In its activities, the Murmansk Administration interacts closely with the state bodies of the Murmansk region exercising executive power, law enforcement bodies, Federal Security Service, Regional Tax Inspection, State Labour Inspection in the Murmansk region.

The oversight, control and approval activities were performed by the Administration in accordance with the annual plan of activities approved and plans of activities extended for a month period. When covering the main types of oversight, the following was performed.

In the area of oversight over transportation of hazardous substances, 37 inspections of the entities under control were performed, during which the State Inspectors involved placed their main focus on the issues of safe operation and technical status of the track facilities, rolling stock, sites of hazardous substances loading and unloading, train operation at non public rail way tracks, compliance with the procedural discipline during transportation and handling operations involving hazardous cargoes, certification of managers, specialists and maintenance personnel, production control procedures, preparedness of organizations and entities involved for localization and elimination of accidents and contingencies effects, compliance with the licensing requirements and conditions, as well as safety and integrity of hazardous cargoes during transportation and handling operations.

During the inspections performed, over 12 months of the year 2008, 341 cases of violation of industrial safety requirements were identified and instructed to be eliminated, including 20 cases of violation of the licensing requirements and conditions. The compliance with the instructions, issued earlier to eliminate 202 requirements claimed, was examined. In covering the results of the inspections performed, 7 officials on duty were brought to administrative responsibility in the form of administrative penalties imposed thereon to the amount of 20000 Rubles and 1 legal entity was held responsible being imposed with an administrative penalty to the amount of 20000 Rubles. In addition to that, as required by Officials of the Administration, disciplinary responsibility was imposed on 16 employees of the organizations examined.

The chemical supervision of the Administration, in the period of 2008, was involved in 17 examination procedures in the organizations and entities under control. In performing the control oriented events, the issues of technical safety, level of occupational activities at hazardous sites and stronger production control over the repair, maintenance and hazardous works were made top priority for the examination procedures, as well as planes of reconstruction, technical upgrade and technological modernization were subject to special scrutiny. During the inspection procedures performed 158 cases of violation of the industrial safety requirements were identified and instructed to be eliminated. The compliance with the requirements claimed in meeting the earlier instructions was also inspected (in total – 229).

In covering the results of the inspections performed, 6 officials on duty and two legal entities were held administratively responsible and administrative penalties to the total amount of 75000 Rubles were imposed. Besides, as instructed by Officials of the Administration, the administration offices of the organizations and entities held responsible administratively 27 managers and specialists of various levels.

The state inspectors of the metallurgic oversight agency, in the period of 2008, performed 38 inspection procedures in the organizations under control. During the inspection procedures performed 389 cases of violation of the industrial safety requirements were identified and instructed to be eliminated. The compliance with the requirements claimed in meeting the earlier instructions was inspected – 325 cases.

In covering the results of the inspection procedures performed, 22 officials on duty were held responsible administrative penalties to the total amount of 58000 Rubles imposed.

Over twelve months of 2008, specialists of the mining and technical departments of the Administration performed 624 control inspection procedures, including: comprehensive inspections – 4, target inspections – 67, routine inspections – 540 and 13 inspections of compliance with the licensing requirements. During the inspection procedures performed, 5464 cases of violation of the applicable rules, norms and instructions of industrial safety were identified. As many as 110 instructions were issued for the people involved at work places to be withdrawn thereof, in cases if danger to employees' life and health occurs. In covering the results of the effort made over a certain period of time (month, quarter etc.), the mining and technical departments of the Administration held conference meetings where summaries of the results covering the period elapsed and tasks setting for the following period were made. Upon completion of the comprehensive inspection procedures, the departments invited representatives (specialists) of the hazardous production site where the inspection had been performed.

Administration of the Federal Service for Oversight over Consumers' rights and Man's Well Being in the Murmansk region (Rospotrebnadzor)

Pursuant to the Regulation on the Administration of the Federal Service for Oversight over Consumers' rights and Man's Well Being in the Murmansk region, the Administration of Rospotrebnadzor, as part of its authority in the area of OSH, performs the following:

- state sanitary and epidemiologic oversight over:
  - working conditions,
  - compliance with the hygienic norms,
  - work places and working processes,
  - plant and equipment status,
  - work place design, personal and collective protection equipment use,
  - terms of employment,
  - rest and sanitary and public services provided for employees with the aim of prevention of occupational and production induced diseases;
- review of appeals, inquiries placed by the state power and local government bodies, legal entities, individual entrepreneurs and individuals on the issues of working conditions and occupational morbidity;
- issuance of certificates, information references for the state power and local government bodies (in accordance with the requirements of the Administrative Regulation, approved by the Order issued by the Ministry for Public Health and Social Development of the Russian Federation dated from 19.10.2007 No. 656);
- arrangement of events aimed at identification of causes and conditions of occupational diseases, mass non-infectious diseases (poisonings) of people, connected with the impact made by unfavorable factors of the working environment.

The Administration comprises 6 territorial departments (TD): TD in the Pechenga district; TD in the Kolsky district and the settlement Vidyaevo; TD in Severomorsk, the settlement of Polyarny, the settlement of Skalisty, the settlement of Ostrovnoy, the settlement of Zaozersk; TD in the towns of Monchegorsk, Olenegorsk and Lovoozersky districts; TD in the towns of Apatity, Kirovsk and Kovdorsky district; TD in the Kandalashsky and Tersky districts and town of Polyarnye Zori.

The oversight over the issues of occupational hygiene (occupational health) is exercised by 8 specialists of the Administration and territorial departments. The organization ensuring the activities of the Administration, with necessary laboratory and instrumental research, expert assessment procedures on the territory of the region is the Federal Enterprise "Centre of Hygiene and Epidemiology of the Murmansk Region" and its affiliations (6 ones).

The Administration performs its activities in interaction with the territorial bodies of other federal executive power bodies, local government bodies, non governmental associations and other organizations.

In covering the results of 2008, 443 scheduled and unscheduled events were held connected with oversight procedures regarding legal entities and individual entrepreneurs' compliance with the work conditions regulating sanitary laws and requirements thereof, of which 137 events were held with application of laboratory and instrumental methods. Investigation of 191 cases of newly identified occupational diseases was reported to have been involved in. The Regulation issued by the Chief State Doctor in the Murmansk Region dated from 11.06.2008 No. 8 "On Stronger State Sanitary Oversight over Work Conditions in Enterprises and Entities of the Murmansk Region" was passed and enforced.

In covering the results of the events aimed at control over the cases of violation of the sanitary laws at industrial facilities identified, 42 penalties were imposed. The main cases of violation, which were identified during the control connected events, are the following: non compliance with the periodicity of examinations of hazardous occupational factors in exercising production control, incomplete cover of workers engaged in hazardous and unfavorable working conditions with regular medical examination procedures, noncompliance of the actual levels of hazardous occupational factors at work places with the applicable hygienic norms.

*The State Inspection of Road Traffic Security (GIBDD)* permits commissioning of new cars and vehicles and those that have been subject to repair; monitors the technical status of automotive vehicles in enterprises and entities, in holdings and offices, over their safe operation; controls safety of the road traffic; is involved in investigations of accidents and cases of violation of vehicles operation rules, as well as exercises control over training for automotive transportation.

#### **4.1.5. Authorities and functions of municipal bodies involved in occupational safety and health**

Due to the fact that up to the present moment, the authority of the municipal (local) government bodies has not included the issues of OSH, the administration of the municipalities of the Murmansk region do not have the positions of specialists in OSH.

However, the Ministry of Social Development of the Murmansk region has been making an effort to involve in OSH management on the territory of the municipalities of the local government bodies. This effort is built on the principles of volunteer participation and mutual collaboration, in the form of holding joint conferences- seminars, rendering consultation and methodological assistance to the local government bodies, providing information materials updating on the issues of work conditions and occupational traumatism.

In order to have the local government bodies involved most adequately in the effort dedicated to OSH issues, it is necessary to amend the Federal Law dated from 06.10.2003 No. 131 "On Common Principles of Local Government in the Russian Federation".

## **4.2. Regional scientific and research and design agencies and offices (institutes, centers, laboratories), involved in occupational safety and health**

### **4.2.1. State scientific and research and design agencies and offices (institutes, centers, laboratories), involved in occupational safety and health, occupational hygiene on the territory of the Region**

The region has a unique comprehensive scientific research entity – the Kola Scientific Center of the Russian Academy of Sciences (Center – hereinafter), based in the town of Apatity. At present, its organization comprises 11 state scientific and research entities (9 institutes and 2 centers). The main task of the Center, since the moment of its establishment (1930) has been the formation of a database for the natural environment of the Euro-Arctic region and elaboration of a rational strategy of development of the natural potential of the North of Russia on the basis of environmentally friendly technologies and the biosphere based conception of natural resources use.

In the 1990-ies, the Center played the key role in strengthening the international cooperation in the Euro-Arctic region, having implemented together with the leading research organizations and universities of Scandinavia, EU and USA a comprehensive program of environmental and geophysical, oceanologic and economic research, the results of which provided the basis for the plan of actions to obtain a sustainable development of the European North and Barents region the XXI century, approved by the UNO and Barents Region Council. The developments of the Center involved scientists provided the basis for the formation of the Strategy of Social and Economic Development of the Murmansk Region for the period of up to the year 2015.

Let us consider the range of problems that some research institutes of the Kola Scientific Center have covered in their papers, whose aspects of research comprised assessment of the scope of the anthropogenic impact made on the natural environment of the region, the-state-of-the-art methods of the prediction estimate and monitoring risks, methods of sustaining the stable balance between the technosphere and biosphere have been proposed, which directly affects the status of OSH and public health in the region of concern.

#### ***The Mining Institute of the Kola Scientific Center of the Russian Academy of Sciences***

The Laboratory of Development and Rational Use of the Underground Space affiliated with the Institute (Laboratory Chief – V.P. Konuhkin, Prof., D.T.S.), on the basis of the extended theoretical and experimental research, has performed the following:

- A conception of stronger radiation safety of the nuclear power sector has been developed through underground location of nuclear power plants; the characteristics of evolution of severe accidents at underground nuclear plants (UNPs) equipped with the VVER-440 и “RUTA” type reactors have been studied and scientific substantiation has been presented for the secured level of radiation safety at the UNPs at internal and external catastrophic impacts, through use of the rock mass properties and use of mine technical methods of accident containment;
- A concept of transformation of the safety block of the Chernobyl NPP into an environmentally safe system has been proposed and substantiated (“Chelter-2” Object); a scientific substantiation for thermal, nuclear and radiation safety of the object has been presented, as part of the “Monolith” Project – winner of the International Projects Contest, developed together with the VNIPIET Institute;
- A database has been set up on the structure and properties of the primary radioactive waste (RAW) and spent nuclear fuel (SNF), accumulated at the Kola NPP and nuclear navies; an information basis has been developed on conditioned RAW, which includes data on the volume

- of radiation characteristics of waste of various types, as well as SNF generated by ship nuclear power driven installations;
- The regional problem of generation and accumulation of one of the most significant radio nuclides – tritium- has been studied in-depth, which is generated during operation of the Kola NPP and nuclear navies, and a forecast for radiation effects, induced by tritium transfer into Imandra Lake, has been completed;
  - Criteria for assessment have been elaborated and methodology of plant - siting for underground placement of radiation hazardous objects and sites has been developed; an assessment procedure for the Murmansk and Archangelsk regional territories has been completed regarding the feasibility of placing a storage facility for non treatable SNF and RAW final burial (disposal) site; rating has been performed and specific sites for placement of underground radiation hazardous sites have been recommended;
  - State-of-the-art technologies of RAW and SNF isolation in the subsurface and deep geological formations of crystalline hard rock have been substantiated and developed.

More than sixty technological solutions of the laboratory in this area have been patented and are holders of authorship certificates of the USSR and patents of the Russian Federation. In covering the results of research, more than sixty works have been published, including fourteen monographic works. Research in the area of securing stronger radiation safety in the North West region of the Russian Federation has been conducted in cooperation with the biggest companies of Germany, France, Belgium (DBE, SGN, ANDRA, ANTEA, BRGM, BELGATOM, TRACTEBEL, SCK\*CEN, ONDRAF).

***The Institute of Information Science and Mathematical Simulation of Technological Processes of the Kola Scientific Centre of the Russian Academy of Sciences***

Since the moment its foundation, The Institute has been involved in the issues of industrial and environmental safety, risk management and the basic results of these activities (covering the respective areas) have been the following:

***Higher safety of mining operations.*** The Institute cooperated for many years with the JSC «Apatit» (the town of Kirovsk) regarding the issues of reduction of accident risks and emergencies, induced by such natural and anthropogenic phenomena as quakes. The Institute has been involved in the development, upgrading and operation of the automated system and control methodology for measuring the block status in the area of mining operations.

***Underground sites safety assessment.*** For underground nuclear sites, an analysis has been performed for assessing probabilistic scenarios of accidents development, an environment monitoring system has been designed. The results thereof have been integrated into the safety case technical documentation applied for three underground nuclear power plants. A computation program system and imagery onlap for probabilistic destruction zones have been elaborated for mine opening of various forms.

***Analysis of production facilities safety.*** A comprehensive assessment of resistance of the JSC «Apatit» to the impact made by emergencies of anthropogenic, natural and social nature, and to impacts made by primary and secondary destruction factors at war time. Declarations of Safety for a number of hazardous sites located in the region have been developed: explosive storage facility, chloric facility, processing plants waste storage, gas filling stations.

***Assessment of risk indicators for anthropogenic induced emergency situations.*** Estimate of probable damage induced by accidents has been performed for the waterside structures operated by the JSC «Apatit». As a result, for three sites, physical and value data of probable damage have been defined (social, material and environmental nature) at accidents, scenarios of the severest and most probable accidents have been identified.



**Industrial safety control automation.** A project of industrial safety control automation has been developed for the JSC “Apatit”. Under the Project, a prototype of exemplary employment has been developed for a specialist of the industrial safety service.

**Safety passport development (SPs).** SPs for twenty five various hazardous sites located in the Murmansk region have been developed. The Passports have been approved with the Chief Administration of the Ministry for Emergencies of the Russian Federation in the Murmansk region, the one SP has been subjected to an evaluation procedure attested by the NWRC of the Ministry for Emergencies of the Russian Federation. SPs for two education facilities of the region have been developed.

**Development of plans aimed at prevention and oil and oil products spill cleaning (PCOPS).** Ten PCOPSs are being developed for sites located in the region. For three PCOPSs, a positive conclusion issued by the State Expertise Agency of the Ministry for Emergencies of the Russian Federation has been received.

#### **4.2.2. Non-governmental scientific research and design agencies and offices (institutes, centers, laboratories), involved in occupational safety and health on the territory of the Region**

No data on non-governmental scientific research and design agencies and offices involved in occupational safety and health on the territory of the region are available.

#### **4.2.3. Occupational safety and health centers (occupational health services), rendering non-educational services in the field of occupational safety and health**

On the territory of the Murmansk region, the three OSH centers are available, which render services in OSH:

1. the State Entity “Consultation and Methodological OSH Center of the Murmansk region”, the City of Murmansk (SE “CM OSH Centre” – hereinafter);
2. the Autonomous non-commercial association “Center of Occupational Safety and Health”, the town of Monchegorsk (ANA “OSH Centre” – hereinafter);
3. the JSC Ltd. “Engineering and Methodological Center” of the City of Murmansk.

These organizations render the following services:

- In working condition attestation;
- In developing plans and programs aimed at improvement of working conditions and OSH, as well as improvement of OSH management systems applied;
- In developing programs of all kinds of OSH instructions and training;
- In developing OSH instructions for employees requested by organizations and entities;
- In preparing a packet of administrative documents on OSH, which are mandatory for enforcement by small and middle size businesses;
- In consulting on the issues of OSH.

The structures of two centers (SE “CM OSH Centre” and ANA “OSH Centre”) operate the laboratories certified for conducting instrumental examinations (measurements) of hazardous occupational factors.

The SE “CM OSH Centre” was certified by the Ministry for Labour and Social Development of the Russian Federation (Certificate SSOT No. 0106 dated from 23.06.03), authorizing for OSH activities certification, and is involved in rendering this service.

#### 4.2.4. Centers of occupational pathology

The Scientific and Research Laboratory of the Federal State Entity of Science “North West Scientific Center of Hygiene and Public Health” of the Federal Service for Oversight over Consumers’ Rights and Man’s Well Being (Rospotrebnadzor) of the Ministry of Health of the Russian Federation.

The scientific and research laboratory of the Federal State Entity “North West Scientific Center of Hygiene and Public Health” of the Rospotrebnadzor Agency of the Ministry of Health of the Russian Federation” is the head center of occupational pathology in the Murmansk region. Pursuant to the Charter of the Entity, its main tasks are as follows:

- Development of scientific and methodological basics of sanitary and epidemiological oversight, state-of-the-art techniques and means of hygienic assessment of production and environment parameters, diagnostics, prevention, treatment and medical rehabilitation of occupational diseases with the aim of securing sanitary and epidemiological well fare for the population, improvement of quality of medical aid and reduction of morbidity indexes, disability and mortality;
- Study of the structure of occupational diseases, characteristics of their genesis, clinical development and disease outcomes among the employees in the North West Federal Okrug;
- Development and implementation of scientific programs aimed at prevention of morbidity and premature mortality of the population, living in the areas of the Far North and areas equated thereto, including the arrangement of scientific Arctic expeditions.

Pursuant to the tasks mentioned, the object of activities of the Entity is the following:

- conducting scientific research in accordance with the basic tasks;
- development of hygienic regulations and conducting sanitary and epidemiological expertise assessment of the production with subsequent examination of the production conditions, as well as new technologies and equipment, working conditions and life environment (in accordance with the applicable Laws of the Russian Federation);
- development of regulatory and methodological documents, regulating activities aimed at prevention of occupational diseases and other health disorders, connected with the impact made on the human organism by hazardous environmental factors;
- conducting activities aimed at working condition attestation (in accordance with the applicable Laws of the Russian Federation);
- medical activities (in accordance with the License);
- Preparation of monographs, collections of scientific papers, recommendations, manuals and course books, information and methodological materials and other types of intellectual products;
- scientific and consulting, and methodological and practical assistance to public health bodies and entities and sanitary and epidemiological service covering the area of activities;
- test and design activities, development, marketing, implementation, repair and technical maintenance of control over hazardous factors of the life environment, as well as over the items of medical purpose and means of prevention (in accordance with the applicable Laws of the Russian Federation);
- organization, conducting of and involvement in activities of scientific, academic and research congresses, conferences, symposia (including international) covering the scientific problems developed;
- academic and research and inventive activities (in accordance with the applicable Laws of the Russian Federation);
- pharmaceutical activities (in accordance with the License);
- manufacturing medical equipment (in accordance with the License);
- activities aimed at propagation of medications and items of medical purpose (in accordance with the License);

- activities connected with the turnover of narcotic drugs and psychotropic substances, put into List II in accordance with the Federal Law “On Narcotic Drugs and Psychotropic Substances” (in accordance with the License);
- activities connected with the turnover of psychotropic substances, put into List II in accordance with the Federal Law “On Narcotic Drugs and Psychotropic Substances “ (in accordance with the License);
- activities aimed at fabrication and repair of measuring instruments (in accordance with the License);
- technical maintenance of medical equipment (in accordance with the License);
- organization and methodological activities;
- social and hygienic monitoring aimed at setting up databases for determining basic factors contributing into health disorders, including those of reproductive, among the employees;
- design of buildings and structures of I and II levels of responsibility in compliance with the state standard (in accordance with the License);
- construction of buildings and structures of I and II levels of responsibility in compliance with the state standard (in accordance with the License);
- engineering survey procedures for construction of buildings and structures of I and II levels of responsibility in compliance with the state standard (in accordance with the License).

As the data on the nature of scientific and research works the entity has been involved recently, the list of activities is given in the chronological order:

#### **2005**

Development of the system of events aimed at securing hygienic safety of the production environment and health for the employees engaged in the mining and chemical production facilities of the Kola Polar regions (together with the Federal Scientific Center for Hygiene and Public Health named after F.F. Erisman (Moscow);

‘Prevention of eyestrain in occupational activities connected with computer work and transportation vehicles driving’ (methodological recommendations for prevention of eyestrain inducing activities). The project was implemented by Order issued by the Committee for Labour and Social Development of the Murmansk region.

#### **2006**

Exposure to occupational factors and morbidity level identified during periodical medical examination procedures at the nonferrous production facilities of the Kola Polar Regions;

Clinic and functional status of the bronchopulmonary system of the employees engaged in the “Severnny” Mine of the JSC ‘Kola Mining and Metallurgy Company’;

The safety rules during conducting occupational activities at open area sites, territories and inside of non heated spaces at the cold time of the year. The project was implemented by order of the Committee for Labour and Social Development of the Murmansk region.

Analysis of reproductive health for women engaged in hazardous conditions of the mining and chemical complex (joint effort with the Northern State Medical University, the City of Archangelsk).

#### **2007–2008**

Experimental validation for the maximum permissible concentration (MPC) of trialkilamine in the production environment air;

Hygienic optimization for medicinal and prophylactic food and health of employees engaged in hazardous conditions at the JSC “Apatit”;



Integrated assessment of hazardous factors of the production environment and development of events aimed at reduction of their impact on the indexes of health of employees engaged in the industrial facilities of the Kola Polar regions (JSC “Apatit”);

Assessment of the impact made by the complex of occupational factors on health of employees engaged in the aluminum production industry of the North West of the Russian Federation;

Predictive assessment of occupational safety at production facilities of the industrial complex of the Kola Polar regions;

Main patterns of development of pathology induced by industrial production and its prevention during production and processing of raw mica in the North West of the Russian Federation.

### **4.3. Vocational training, education, additional training and advanced training courses in occupational safety and health and information and public awareness oriented activities**

#### **4.3.1. Curricula of higher and post-graduate education. Curricula of additional vocational training implemented by educational institutions and training centers**

In the region, on the basis of Murmansk State Pedagogical University, at the Faculty of Pedagogic and Primary Education Methodology, under the graduate specialty No. 050104 (titled “Safety of Vital Activities”) training is provided for specialists, who are potential specialists in OSH. No occupational training for specialists having higher professional education in the area of occupational health (sanitary doctors, doctors in occupational pathology, etc) is provided in the region.

Additional education and post graduate training in OSH are not provided in the region.

#### **4.3.2. OSH training on the territory of the Murmansk region**

Since 1997, in the Murmansk region, a continuous system of education and OSH knowledge test has been provided for managers and specialists of production facilities, organizations and entities that provide this type of training.

In the period from 1997 till 2008, as many as 27166 people were provided with OSH training and attested in OSH (including those belonging to individual categories of insured workers), from 7483 production facilities and entities, including 11535 managers.

In the year 2008, training in OSH and OSH requirements knowledge tests was provided by 8 training institutions on the territory of the Murmansk region:

1. State Entity “Consulting and Methodological OSH Center of the Murmansk region”, the city of Murmansk;
2. ANA “Murmansk Regional Training Center of Trade Unions”, the city of Murmansk;
3. ‘Murmansk Center for Scientific and Technical Information’, the city of Murmansk;
4. JSC Ltd. “Kvadrat”, the town of Olenegorsk;
5. “OSH Center” affiliated with the Murmansk Regional Institute of Advanced Training for Education Workers, the city of Murmansk;

6. State educational institution (SEI) “Olenegorsky Mining and Industrial College“, the town of Olenegorsk;
7. “Training Center for Employment of the Population in the Murmansk region”, the city of Murmansk;
8. ANA “OSH Center”, the city of Murmansk.

For the period of 2008, OSH training and OSH requirements knowledge tests were provided to 3254 people in the above training facilities (including individual categories of insured workers) from 736 production facilities and entities, including 1104 managers.

The employees of the Ministry of Social Development of the Murmansk region have been involved continuously in the activities of the examination commissions of the training institutions.

The analysis of training processes shows that the region witnesses a growing number of managers and specialists trained and attested in OSH annually.

Additionally, since the year 2001, OSH training has been provided for individual categories of insured workers (through the funds earmarked by the Social Insurance Fund). At the same period, as many as 7971 employees, belonging to these categories, were trained, including 1333 managers of budget-funded organizations. In the year 2008, 1464 people were trained, of whom 182 managers. In the year 2008, training of individual categories of insured workers was provided by the following four training entities of the Murmansk region:

1. SE “Consulting and Methodological Center for OSH of the Murmansk region”, the city of Murmansk,
2. ANA “Murmansk Regional Training Center of Trade Unions”, the city of Murmansk;
3. “Training Center for Employment of the Population in the Murmansk region”, the city of Murmansk;
4. ANA “OSH Center” of the city of Murmansk.

Control over targeted use of funds earmarked for training provided to individual categories of insured workers was exercised by the Murmansk Regional Department of the Social Insurance Fund of the Russian Federation.

#### **4.3.3. Training for employees provided by employers**

All the employees of an organization (entity), including its manager, are obligated to have training in OSH and OSH requirements knowledge test in the order specified by the Government of the Russian Federation (Article 225 of the Labour Code).

Pursuant to Articles 212, 214, 225 of the Labour Code, employers are obligated to provide, and employees must be trained how to use safe methods and techniques for execution of works on labor protection and how to give first aid in the event of occupational accidents, be instructed about labor protection, take a trainee course at the work station, and be checked for the knowledge of the labor protection requirements;

According to Articles 76, 212 of the Labour Code an employer must ensure non-admission to work of persons who have not undergone, in the statutory order, training and instruction on labor safety, and have not done practical study and examination of labor safety requirements knowledge;

Training and all kinds of briefing procedures in OSH are regulated by GOST 12.0.004 – 90 SSBT “Training in OSH. General Provisions” and Ordinance issued by the Ministry for Labour of the

Russian Federation dated from 13.01.2003 No. 1/29 “On Approval of Order of Training in Occupational Safety and Health and OSH Knowledge Test Procedures for Employees of Organizations”.

For all persons recruited and also for those transferred to other jobs, employers are obligated to provide introductory instruction on OSH, arrange training in safe methods and techniques of work performance and providing first aid for the victims of occupational accidents.

For the persons, recruited by production facilities with hazardous or dangerous working conditions, where an occupational selection is required, a preliminary training course is provided covering OSH issues, with further examination and periodical attestation.

According to the nature and time, the instructive procedures are divided into: introductory; on-the-job primary; secondary; unscheduled; targeted.

The introductory instruction procedure at the enterprise is provided by an OSH specialist under a Program developed by the department (an OSH specialist), with account of the SSBT standards, rules, OSH norms and instructions, as well as production facilities characteristics, approved by the manager (chief engineer) of an organization and agreed upon with the trade union committee or another body authorized by the employees.

The introductory instruction procedure is provided to all the newly recruited workers, regardless their education, work track in this occupational activity area or position, with temporary, business travelers, students having a production practice.

The on-the-job primary instruction procedure, as well as secondary, unscheduled and targeted ones is provided by the immediate manager of jobs.

The on-the-job primary instruction procedure, prior to the occupational activities, is provided to:

- all the newly recruited workers;
- those transferred from one department to another;
- employees involved in a job new for him/her;
- business travelers;
- temporary employees;
- construction workers involved in construction and assembly activities on the territory of the working production facility.

Persons who are not connected with equipment maintenance and services, trial procedures, equipment setup and repair, instrument application, storage and application of raw materials, are not liable to the on-the-job primary instruction procedure. The list of professions and duties, relieved of the on-the-job primary instruction procedure, is to be approved by the manager of the facility (entity) upon agreement with the trade union committee and OSH department.

The on-the-job primary instruction procedure is provided under the programs, developed and approved by the managers of production and structural departments of the organization for individual professions (occupational activities) or types of activities with account of the SSBT standard requirements, rules, norms and instructions of OSH, production instructions and other technical documentation. The programs are to be approved by the OSH department (OSH specialist) and by the trade union committee or another body authorized by the employees.

The exemplary list of issues of introductory and on-the-job primary instruction procedures is given in Appendix No. 5.

The second (recurrent) instruction procedure is obligatory for all the employees, except for persons, not connected with equipment service, trial, setup and repair of equipment, application of instruments, storage and application of raw materials, regardless of their qualification, education, work track, nature of activities performed, at least once every half a year.

The unscheduled instruction is provided:

- in commissioning new standards, rules, instructions;
- in case of changes of the applicable technological processes, replacement or upgrade of the equipment;
- in cases of violation by employees of the OSH requirements;
- when requested by the oversight bodies.

The target instruction procedure is provided:

- in conducting one-time activities, not connected with the direct occupational duties;
- in conducting activities connected with the work permit, permit document and other. (It is documented in the work permit or other types of documentation permitting the activities to be conducted.)

Upon completion of all kinds of instructions, a recording is to be made in the log of instruction registration with the mandatory signature given by the instructed and instructing persons.

The employer (or the person authorized thereby) arranges regular training for the employees, not less than once a year, and for employees engaged in blue collar activities in the first aid provided for the victims of accidents – in time specified by the employer, but not later than a month after the person(s) is employed.

#### **4.3.4 Agencies involved in information and public awareness oriented activities**

The main information and public awareness oriented activity in OSH is provided by the Ministry of Social Development of the Murmansk region, that communicates with OSH International Information Center of ILO and the International Labour Organization Subregional Office for Eastern Europe and Central Asia (the city of Moscow).

### **4.4. Special scientific, technical and medical establishments involved in various aspects of occupational safety and health**

Partly, these issues were covered in P. 4.1.4.

#### **4.4.1. Agencies and bodies involved in standardization issues**

On the territory of the Murmansk region, the issues of standardization are under the supervision of the Federal State Entity “Murmansk Center for Standardization, Metrology and Certification”.

#### **4.4.2. Agencies and bodies involved in insurance issues**

The obligatory social insurance of organizations and entities on the territory of the Murmansk region against occupational accidents and diseases is provided by the Murmansk Regional Department of the Social Insurance Fund of the Russian Federation.

No data on the bodies involved in optional insurance are available.

# 5

## Status of occupational traumatism and occupational diseases

### 5.1. Basics of rating traumatism and disease cases as cases of occupational traumatism and diseases

Pursuant to the requirements under Articles 229.2, 230 of the Labour Code of the RF; 'Regulation on the characteristics of investigation into occupational accidents in individual industries and organizations', approved by the Ordinance issued by the Ministry for Labour of the Russian Federation dated from 24.10.2002 No. 73, occupational accidents are defined as those connected with industrial production or not connected with industrial production. On the basis of medical documents issued by the respective entities, occupational accidents are rated according to the severity level as: 'light', 'severe', 'inducing fatality'. When an occupational accident results in one or two victims, this accident is rated as a 'group' one.

The order of account and investigation of occupational diseases is determined by the Ordinance issued by the Government of the Russian Federation dated from 15.12.2000 No. 967 'On Improvement of the Occupational Diseases Investigation and Account in the Russian Federation'.

### 5.2. The current status and dynamic of occupational traumatism and diseases in the Murmansk region

Dynamics of occupational traumatism in the Murmansk region

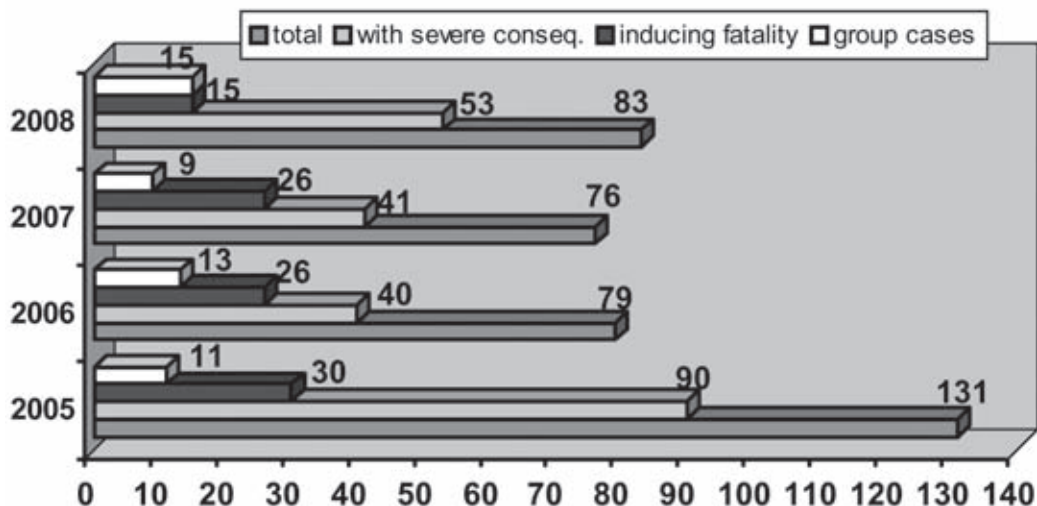
Year	2004	2005	2006	2007
Quantity of workers suffered: total	564	586	550	480
per 1000 employees	3,0	3,1	2,8	2,6

Due to no statistical data on the total number of occupational accidents in the Murmansk region, in 2008, the data on occupational accidents inducing fatality and severe consequences, group, which have occurred in the organizations of the Murmansk region, have been used. Account of data has been conducted by the State Labour Inspection in the Murmansk region and Ministry of Social Development of the Murmansk region.

In the year 2008, the enterprises and organizations of the Murmansk region reported 83 occupational accidents that are liable, pursuant to the requirements of the Labour Code, to a special investigation procedure, of which 15 ones – fatality inducing, 53 – inducing severe consequences and 15 group cases. The total number of victims in these accidents amounted 125 people, of whom 30 died, 61 suffered severe traumas, and 34 had temporary disability.

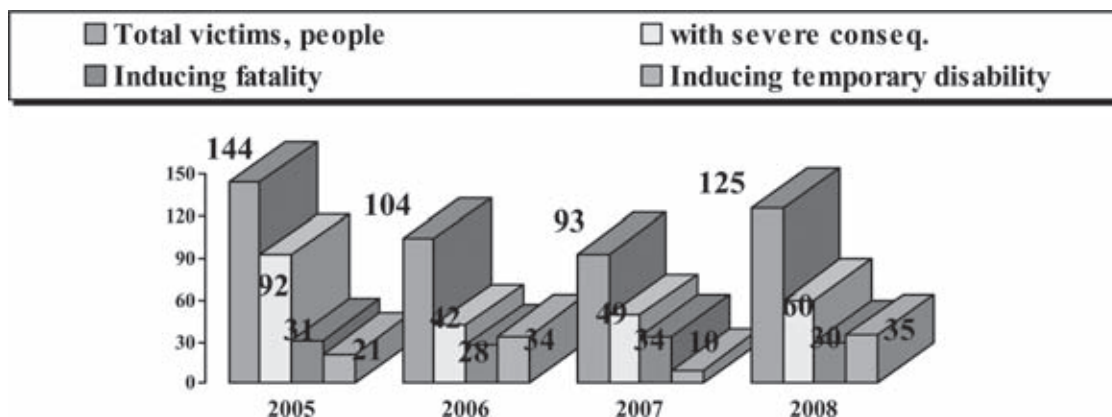
Compared to the year 2007, the number of cases of severe occupational traumatism has increases inconsiderably, from 76 to 83. However, the number of accidents resulting in fatality decreased by 1.7 times, from 26 to 15.

The dynamic of occupational traumatism, covering the periods of the last four years, is given in the Graph:



**Number of accidents liable to special investigation**

The total number of victims of severe accidents, as compared to 2007, increased by 1.3 times: from 93 to 125.

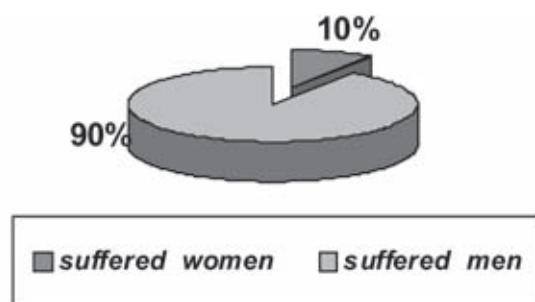


**Quantity of victims of occupational accidents**

In the reporting period, 11 occupational accidents occurred, which are liable to special investigation procedure (5 with severe consequences and 6 – group cases), whereto 13 women became victims (7 suffered severe traumas and 6 suffered temporary disability), no one was reported to have died.

Over the year 2007, 8 accidents occurred, where 10 women suffered (7 – with severe consequences, 2 – died, 1 – suffered temporary disability). In the course of the year 2006, 15 accidents were reported, which caused 24 women to suffer (3 – died, 6 – with severe consequences, and 15 – suffered temporary disability).





**The number of women, who suffered in occupational accidents in 2008, makes up 10 % (13 people) of the total number of those suffered (125 people).**

In the current year, the biggest number of accidents inducing severe consequences occurred at production facilities belonging to the following types of economic activities:

- **mining operations and processing of raw materials** – in 15 accidents, 32 people suffered, of whom 17 died, 12 suffered severe traumas, 3 suffered temporary disability;
- **construction** – in 13 accidents 18 people suffered, including 4 who died, and 8 suffered severe damage to their health, 6 suffered temporary disability;
- **fishery, fish and sea products processing** – 10 accidents, 11 people suffered, including 4 who died, 7 suffered severe traumas;
- **ship repair** – in 8 cases 10 people suffered, of whom 1 died, 8 suffered severe damage to their health, and 2 suffered temporary disability;
- **transportation and communication** – 6 cases, wherein 11 people suffered, 4 people suffered severe traumas, and 7 suffered temporary disability.

The biggest number of occupational accidents, liable to special investigation procedure, occurred at the following entities:

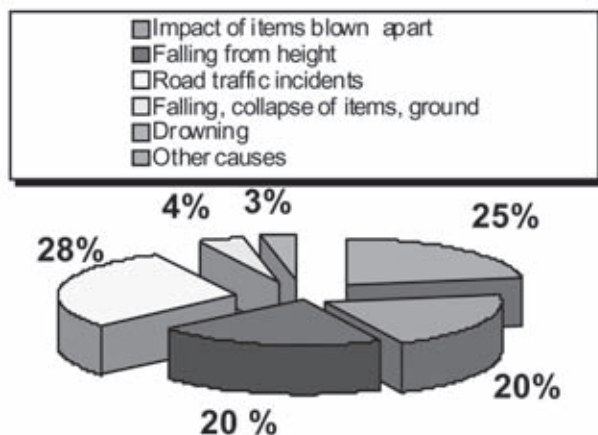
- “Nerpa” (the Head Affiliation of the Federal Entity “Zvezdochka”) – 5 cases, 6 people suffered – 5 people suffered severe traumas, and 1 suffered temporary disability;
- JSC “Apatit” – 4 cases, 19 people suffered: 14 people died, 2 people suffered severe traumas, and 3 suffered temporary disability;
- JSC “Kola Kombinat” – 4 cases, 4 people suffered – 2 died, and 2 suffered severe traumas;
- JSC “MTF - 2” – 3 cases, 4 people suffered – 3 died, and 1 suffered severe trauma.

The biggest number of victims – 16 people, of whom 12 died, was reported in the group accident, which occurred in the JSC “Apatit” as a result of an unauthorized explosion.

Violation of the road traffic rules caused most group occupational accidents (9 cases), where the offenders were the persons involved in road traffic, who are not officials of the organizations, where the victims had worked. In total, the road traffic incidents caused 14 occupational accidents, in which 35 people suffered (2 died, 7 suffered severe traumas, and 26 suffered temporary disability). The main causes of traumatism inducing fatality and traumatism inducing severe consequences have been the following:

- deficient works organization - 18 victims in 16 cases;
- deficient technical status of equipment operated (non compliant with the OSH requirements) – 12 victims in 11 cases;
- non compliance with the OSH requirements on the part of victims - 14 victims in 12 cases;
- personal negligence – 8 victims in 8 cases;
- deficient work place organization – 7 victims in 7 cases.

According to the type of an accident, the number of accident victims in 2008 was reported to have been distributed in the following way:

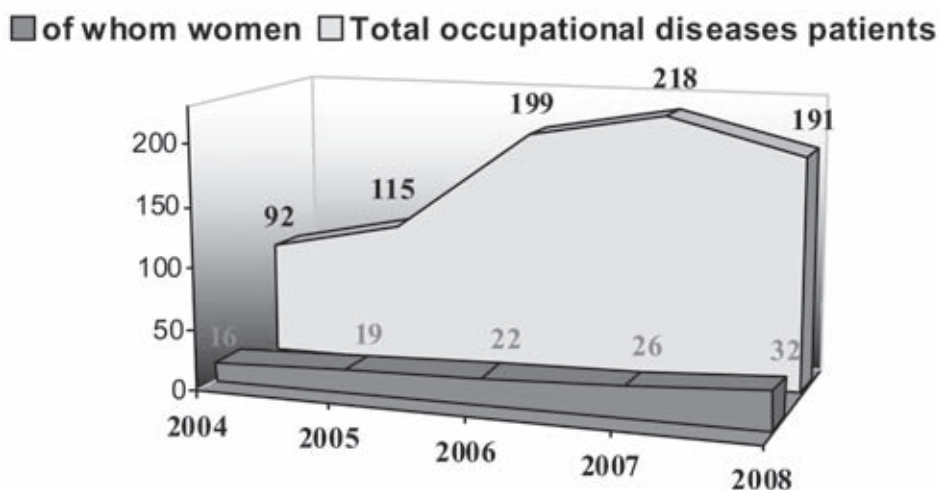


**Victims according to the types of accidents in 2008**

In road traffic incidents: 35 people suffered – 28 % form the total number of victims;  
 In falling from a height and to solid surfaces: 25 people suffered – 20 % of the total number of victims;  
 From the impact made by moving, blown apart pieces: 25 people suffered – 20 % of the total number of victims;  
 In dropping items, ground collapse, etc.: 5 people suffered – 4 % of the total number of victims;  
 Resultant from drowning: 4 people died – 3 % of the total number of victims;  
 In other types of accidents: 31 people suffered – 25 % of the total number of victims.

According to the data provided by the Administration of the Rospotrebnadzor Agency in the Murmansk region, 191 people were newly diagnosed as having occupational diseases, of whom 32 women, in 2008. Last year (2007), 218 people were diagnosed as having occupational diseases, of whom 26 women. Thus, for the first time over four years, a 13 % decrease was reported for the number of those patents who were newly diagnosed as suffering occupational diseases.

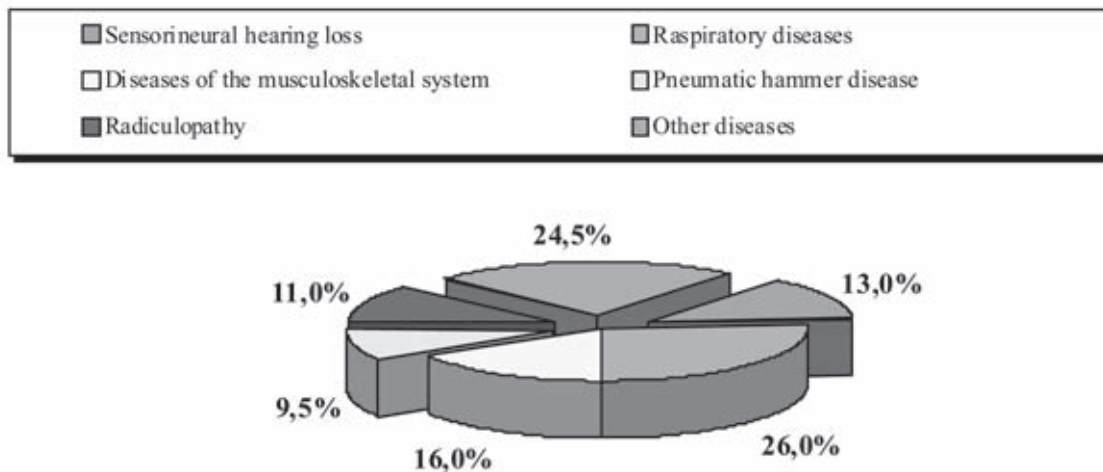
The total number of those patents who were newly diagnosed as suffering occupational diseases is given in the graph:



The following entities are still the leaders in the number of newly diagnosed occupational diseases: JSC ‘Kola Kombinat’ and JSC “Apatit”, which is explained by the fact that these entities have a



big number of employees, who have been exposed for a long time to hazardous working conditions, that trigger occupational diseases.



A considerable number of newly diagnosed diseases was caused by the hazardous impact of physical factors – high noise levels (sensorineural hearing loss), high physical activities together with cold microclimate (diseases of the musculoskeletal system); high vibration levels together with hazardous microclimate (pneumatic hammer disease). In addition to this, a simultaneous impact of low temperatures and high humidity coupled with maximum permissible concentration levels of chemical factors cause employees to develop chronic toxic bronchitis.

The most frequent causes of occupational diseases are: imperfect technological procedures and work places, design defects of equipment and machinery operated, failure to use personal protection equipment or no equipment used whatsoever, occupational activities in a hazardous microclimate, and the main factor – a long time length of service in hazardous working conditions.

Over a number of recent years, a growth of newly diagnosed diseases has been reported; however, the growth dynamic has tended to decrease. In 2008, for the first time over four years, a 13 % decrease was reported in the number of patients newly diagnosed for occupational diseases.

An occupational disease does not occur instantaneously, but evolves for a long period of time, when a person is exposed to hazardous working conditions. Thus, within the shortest time it is unfeasible to reduce considerably the number of occupational diseases even in cases when the productions are modernized, as there is still a considerable number of people, who in the previous decades were exposed to hazardous working conditions, which result potentially in occupational diseases.

Employers need to pay a special attention to prevention of occupational diseases at its early stage, to health promotion measures, to implement technologies and equipment, which enable to reduce the impact made on employees with hazardous production factors.

### 5.3. Basic forms of account of occupational traumatism and morbidity

In the Murmansk region, account of occupational traumatism is performed by the following agencies:

- territorial body of the Federal Service for State Statistics in the Murmansk region (Murmanskstat) – annually, covering major and medium-size organizations, and also at

- random, small-size businesses, belonging to all forms of ownership and types of economic activities. Account bears the comprehensive nature;
- Murmansk Regional Department of the Social Insurance Fund of the Russian Federation– during a year’s time, covering the insured. Account bears the accumulative nature;
  - State Labour Inspection in the Murmansk region, during a year’s time, covering the organizations, registered in the Murmansk region, which are part of the competence of the Inspection, covering the occupational traumatism induced fatalities and severe consequences. Account bears the accumulative nature;

Account of occupational diseases is performed by the Administration of the Rospotrebnadzor in the Murmansk region, during a year’s time, in the order established by the Ministry for Health and Social Development of Russia (Instruction of the Ministry for Health and Social Development of Russia dated from May, 28, 2001, No. 176 “On Improvement of the System of Investigation and Account of Occupational Diseases in the Russian Federation”, covering enterprises and businesses of all forms of ownership; Account bears the accumulative nature.

#### **5.4. Basic forms of statistical data acquisition**

In order to acquire statistical information (data) on occupational traumatism, the applicable forms of statistical reporting No. 7-traumatism, and No. 1-t (working conditions) are used mainly, and the form covering occupational diseases – Statistical Reporting Form No. 24.

Every case of occupational accident identified in the duly order is registered by an organization that is involved in its account (reporting), in the occupational accident registration log, in accordance with Form 9, approved by Appendix 1 to the Instruction of the Ministry for Labour of Russia dated from 24.10.2004 No. 73.

All the occupational accident cases registered by the relevant organization shall be included into the State Federal Statistical Monitoring Forms.

#### **5.5. Number of occupational fatalities registered**

According to the data of the State Labour Inspection in the Murmansk region and Ministry of Social Development of the Murmansk region, on the territory of the Murmansk region, 15 occupational accidents inducing fatality were reported in the year 2008.

As compared to the year 2007, in 2008, the number of occupational accidents inducing fatality was reported to have reduced sufficiently – from 26 cases in 2007, to 15 – in 2008.

In total, in 15 fatal cases and in 3 group ones, 30 people were reported to have died:

- Resultant from road traffic incidents, 2 people died;
- Due to deficient works organization at production, 3 fatal cases were reported;
- Due to deficient technical equipment status (non compliance with OSH requirements), in 3 fatal and 2 group accidents, 17 people died;
- Due to non compliance with safety requirements, 4 people died;
- Due to deficient work place arrangement, 1 fatal accident was reported;
- Due to non compliance with work performance technology, 2 fatal accidents were reported;
- The biggest number of casualties, 12 people, was reported in a group accident, registered in the JSC «Apatit», resultant from an unauthorized explosion.

## 5.6. Number of workers occupied at work places exposed to hazardous working conditions

Due to no data of statistical survey of OSH status available, which cover the year 2008, in the organizations of the Murmansk region, data on the results of the letter-of-advice based registration of work places attestation procedures are given.

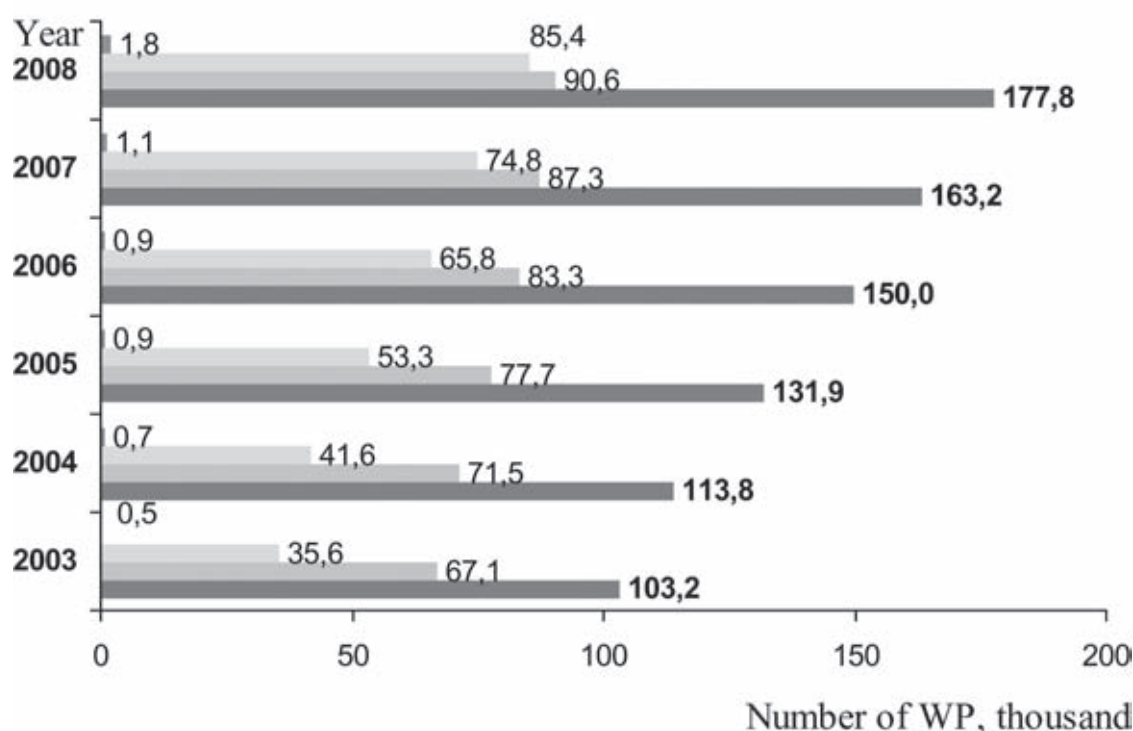
This registration is provided by the Ministry of Social Development of the Murmansk region, which is involved in keeping the “Registry of work places according to working conditions in the Murmansk region”.

The OSH and working conditions status in organizations is strongly affected with workplace attestation procedures, as the most effective actions of organizations and entities aimed at bringing the OSH and work conditions to meet the requirements of the labour regulating laws.

Over 2008, quality assessment procedures were performed and the results of the workplace attestation procedures, covering 14654 work places in 247 organizations located in the region, were entered into the “Registry of work places according to working conditions in the Murmansk region”.

In total, beginning from 1998, the “Registry of work places according to working conditions in the Murmansk region” registered more than 177.8 thousand work places (177831) at 2055 organizations and entities, of which 137.9 thousand work places were attested (77.6 %), 39.9 thousand work places were attested conditionally (22.4 %).

The dynamics of work places (WP) attestation over the last 6 years:

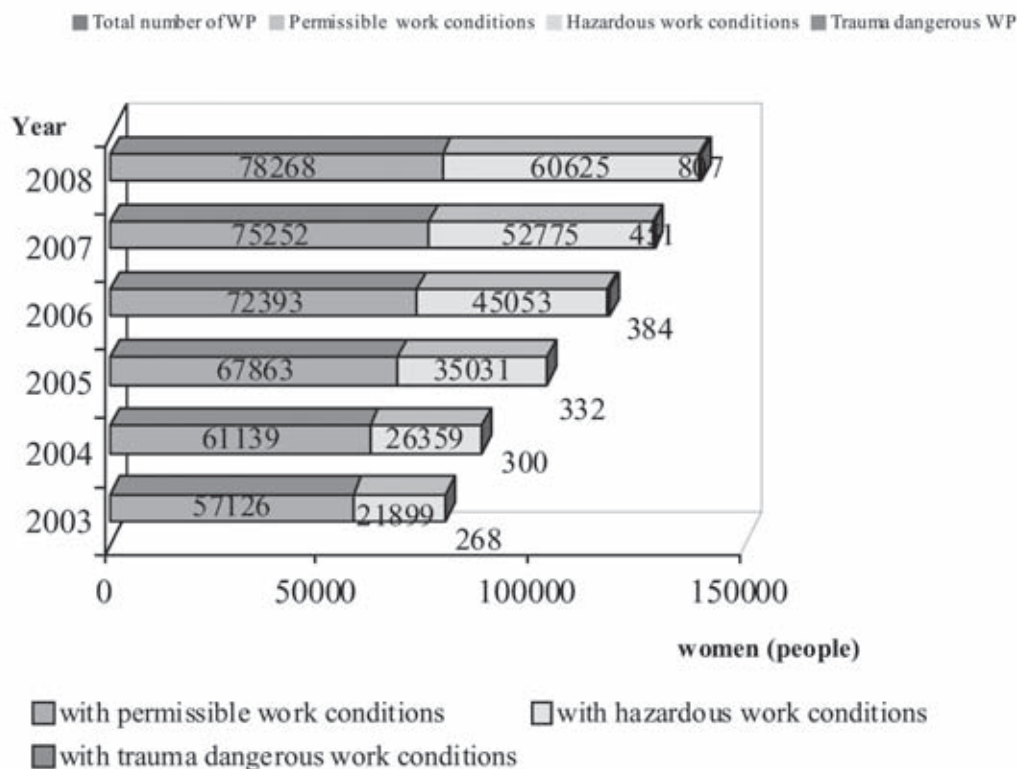


### Work places distribution according to work conditions classes from 2003 till 2008

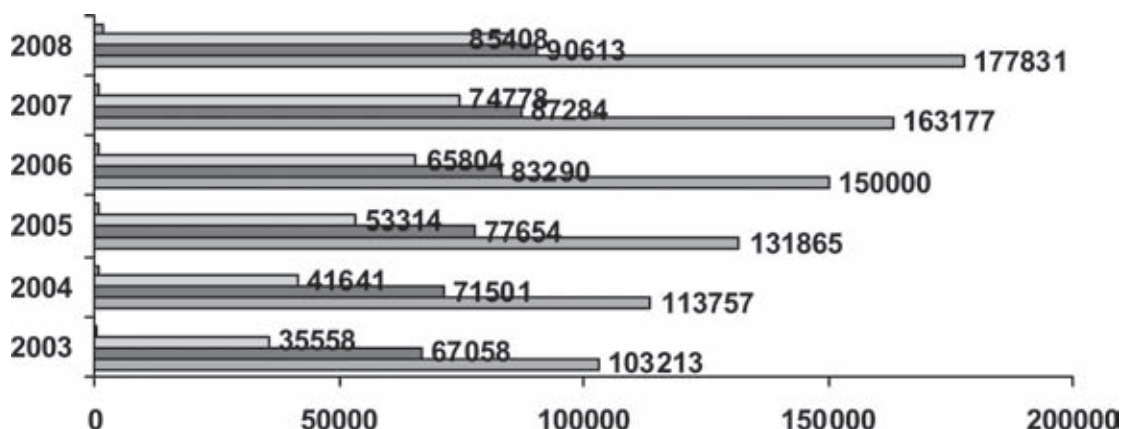
As of the end of 2008, the number of those employed at work places, which were subject to work place attestation procedures, amounts to more than 280.4 thousand people (280486), of whom

139.7 thousand (139700) - women; more than 78 thousand (78268) women are engaged in conditions with optimal and permissible working conditions; hazardous work condition activities employ 60.6 thousand (60597) women, those in dangerous work conditions – 28 women are employed, those with trauma dangerous work places – 807 women.

The history of the number of women engaged in the work places attested according to the classes of work conditions is given below:

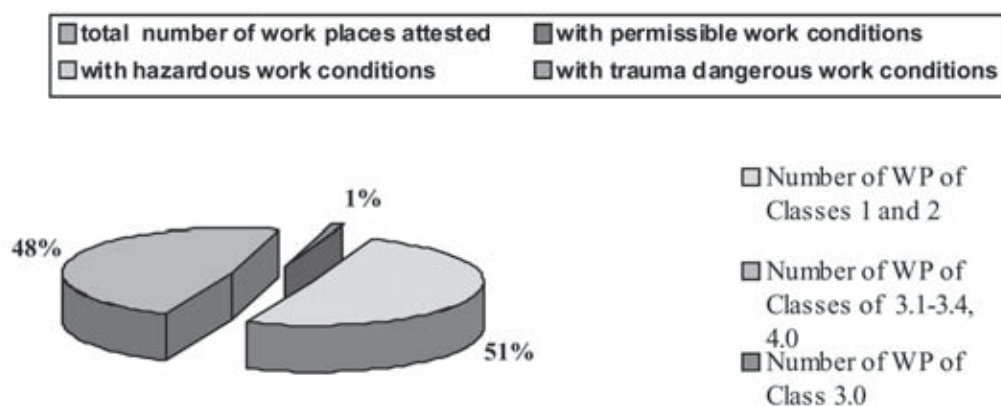


Analysis of the work place attestation procedures performed depending on the class of work conditions has shown that the number of work places involving safe work conditions constitute more than 50 % of the total number of work places attested.



The results of the work places (WP) attestation according to the classes of work conditions, as of the end of 2008:

Total WP, including those covering the work condition classes:	177831
Optimal and permissible (the classes 1.0 and 2.0)	90613
Hazardous and dangerous (the classes 3.1-3.4, 4.0)	85408
Trauma dangerous (the classe 3.0)	1810



Analysis of the work places registered during 2008, showed that the optimal and permissible working conditions are met at 22.8 % of the work places (3329 ones), hazardous work conditions – at 72.5 % of the work places (10630 ones), trauma dangerous – 4.7 % of the work places (695 ones).

Several causes for the obvious domination of the hazardous work conditions work places, included into the “Registry of work places according to working conditions in the Murmansk region” in 2008, can be underlined. The main one is connected with the pursuit of organizations to provide the results of work places attestation procedures in the reporting period, justify the compensations (additional payments, additional vacation, additional food, early old age retirement pension) provided to employees, engaged in heavy occupational activities, activities in hazardous and (or) dangerous and other special occupational conditions. Another significant factor – these organizations’ affiliation with the industries, where, in accordance with the technological processes employed, hazardous production factors are available. In 2008, the work places attestation procedures were performed by such organizations and entities as the JSC “Apatit”, State Enterprise “TEKOS”, repair and construction enterprises, housing and public services entities, educational and public health entities, as well as military units and entities belonging to the authority of the Ministry for Defense of the Russian Federation. For the work places having divergences from the optimal and permissible work conditions, actions aimed at elimination of the violations identified have been taken.

In 2008, in accordance with the regional target program ‘Improvement of OSH and working conditions in the Murmansk region for the period of 2007-2008’, 461 work places were attested at 9 organizations of social protection for the population, through the funds of the regional Budget to the amount of 500 thousand Rubles.

## **5.7. Assessment of incomplete reporting scale (underreporting)**

At present, the statistical data on occupational traumatism fail to provide complete information on the current situation, as the territorial bodies of the Rosstat Agency have been involved in account of occupational traumatism cases on the basis of the full statistical survey of big and middle size enterprises according to the types of economic activities established by the Rosstat Agency, and at the small size businesses – on the basis of a sample survey.

The Murmansk Regional Department of the Social Insurance Fund of the Russian Federation has been involved in account of occupational accidents, with those persons having suffered them being insured by the certain insurer. Actually, these are the most complete data on occupational accidents, as practically all the entities located in the Murmansk region are to insure in the obligatory way their employees in the Social Insurance Fund.

The State Labour Inspection in the Murmansk region has been taking account of severe accidents, accidents inducing fatalities and group accidents, according to the information acquired in investigating accidents, in conducting control oriented activities, identification of accidents withheld from public, review of appeals filed by victims (or victims' representatives).

In doing so, data provided by the above bodies on occupational traumatism are different, which explains why it is necessary at the federal level to set up a system of statistical survey, which would ensure a reliable and consistent approach of the bodies of the Rosstat, Social Insurance Fund and Russian Labour Inspection Agencies of the Russian Federation towards account of occupational accidents.



# 6

## Regular activities and continuous work in the field of occupational safety and health: case studies

### 6.1. Regular activities at the regional level

The Ministry of Social Development conducts the following actions aimed at OSH at the regional level:

- Twice a year sessions of the regional interdepartmental commission on OSH are held, where urgent issues of OSH and work conditions in the Murmansk region are reviewed;
- Review contest for the best OSH work organization (annually);
- Annual events dedicated to the World Day for safety and health at work: «Doors Open Day», seminars, conferences, exhibitions of regulatory updating literature on OSH and personal protection equipment for employees;
- Seminars and conferences on the urgent issues of OSH and work conditions involving managers and specialists of the administrations of municipalities and entities in the Murmansk region.

These events are held in interaction with and directly involving representatives of the bodies of state power and local government, oversight and control, associations of trade unions and employers.

#### 6.1.1. Activities and initiatives of trade unions in the field of occupational safety and health

The Murmansk Regional Council of Trade Unions, together with the Central Association of Trade Unions of Norway, supported by the Murmansk Regional Organization of the Mining and Metallurgy Trade Union and local organization of the Union of the JSC “Kovdorsky Kombinat”, in 2008, put in practice the Russian-Norwegian Program: “Quality, Health, Environment”, oriented on solution of the actual problems connected with improvement of OSH and working conditions at work places, quality of services, mitigation of the impact made by hazardous production factors on the environment.

The Murmansk Regional Council of Trade Unions has been involved on the permanent basis in improvement of the activities of persons authorized in OSH of the trade union bodies and members of the committees (commissions) in OSH and their advanced training. A special emphasis has been put on the setting up OSH management systems in enterprises and entities belonging to all forms of ownership, with full fledged involvement of representatives of working teams, assessment of working conditions at work places, adequate work and rest schedule, forms of social protection of employees during occupational activities.

The most energetic activities aimed at this area has been conducted in the metal mining industry (JSC “Apatit”, JSC “Kovdorsky Kombinat”), in the public health system (the First Aid Murmansk Clinic Hospital, Military Hospital of the town of Polyarny, Medical Unit of the JSC “Sevryba” etc.), among the civil personnel of the military units (auxiliary fleet of the Northern Navy).

In order to provide for a consistent approach towards account of occupational accidents and diseases among the trade union members of the Murmansk region, the Murmansk Regional Council of

Trade Unions issued an Ordinance “On Commissioning a System of Account of Occupational Accidents and Diseases among the Trade Union Members of the Murmansk Region”.

Taking into account the above Ordinance, the session of the Council of the Chairpersons of the Executive Committee of the Murmansk Regional Council of Trade Unions took a decision: chairpersons of the trade union organizations are to submit accounts to their higher level authority, and then to the Technical Labour Inspection of the Murmansk Regional Council of Trade Unions. Information on occupational traumatism and diseases among the trade union members is to be reviewed at the sessions of trade union committees, involving employers and representatives of the higher level trade union body.

The trade unions of the Murmansk region have been involved actively and permanently in activities connected with the World Day for safety and health at work.

Representatives of the Murmansk Regional Council of Trade Unions are members of the Regional Interdepartmental Commission for OSH.

In the year 2008, the Murmansk Regional Council of Trade Unions and its Technical Inspection held seminars with the trade union activists on the basic issues of OSH, contained in the applicable labour regulating laws.

In order to help employers, trade union committees, members of committees for OSH, the Regional Training Trade Union Centre developed the program of a seminar aimed training their representatives on the common issues of work place attestation procedures and presentation of their results.

## **6.2. International cooperation**

### **6.2.1. World Day for safety and health at work**

In the Murmansk region, the World Day for safety and health at work in 2008 was celebrated for the fourth time, which confirms the intentions of the Governor, the Government of the Murmansk region to place a special emphasis on such issues, as improvement of OSH and working conditions and reduction of occupational traumatism, diseases and reduction of occupational risks.

In the Ministry of Social Development of the Murmansk region, on April, 25 and 28, 2008, events were held dedicated to the World Day for safety and health at work:

April, 25 and 28 – World Day for safety and health at work, during which thematic exhibitions were held: regulatory and legal literature on OSH, personal protective equipment for employees. The exhibitions were organized by the Murmansk Centre for Scientific and Technical Information – affiliation of the Federal Institution “Association “Rosinformresurce”” of the Ministry for Nuclear Energy of Russia, JSC “Trakt”, JSC “Karelia-Service-Zapolyarye”, JSC Ltd “Procurement Basis “DIAL”, JSC “Tehknoavia – Murmansk”. The exhibition was attended by about 50 representatives of enterprises and organizations of the Murmansk region. Such exhibitions are held annually.

April, 28 – seminar – conference with 10 organizations rendering services in OSH, on the issues that occur in rendering such services. The seminar was also attended by representatives of the State Labour Inspection in the Murmansk region and the Murmansk Regional Department of the Social Insurance Fund of the Russian Federation.

The issues discussed at the aforesaid conferences concerned the relations of the services and production risks management. One of the main issues, which was highlighted by the seminar

members, is that up to the present moment, no range of OSH services has been defined, in order to enable to render thereof, it is necessary to have an obligatory accreditation procedure, as well as rules of the accreditation procedure itself.

In order to strengthen awareness and render assistance to employers and employees on the issues of OSH, on the World Day for safety and health at work, the Ministry of Social Development of the Murmansk region arranged 31 consultation procedures for representatives of various entities and organizations on the issues of concern:

- On OSH management at production facilities;
- On compensations for work in hazardous and (or) dangerous working conditions, work places attestation;
- On providing employees with personal protective equipment;
- On state expertise procedures in defining employees' rights to compensation paid for work in hazardous and (or) dangerous working conditions;
- On OSH attestation and certification of occupational activities;
- On investigation of occupational accidents, including which employers have not been informed thereof in timely manner.

The World Day for safety and health at work in the Murmansk region was highlighted in the media:

- In the “Murmansk Messenger” and «”Komsomolets Zapolyarya” newspapers;
- By TV –VGTRK “Murman” and “Blits” TV Broadcast Companies.

In some organizations of the Murmansk region, such as the JSC “Apatit”, JSC “Murmansk Sea Shipping Company”, JSC “Murmansk Sea Trade Port”, JSC “Kolenergo” and others, as part of the World Day for safety and health at work, conference meetings were held (including those in the divisions), with analysis of the occupational risks. The JSC “Apatit” gave an interview to the local radio, regarding the World Day for safety and health at work at production facilities. The JSC “Murmansk Sea Shipping Company” forwarded information to the ships of the shipping Company and to its divisions, on the significance of the World Day for safety and health at work and aspects of the year 2008 “Management of Occupational Risks”. Experts of the affiliation of the JSC “North West “Kolenergo” gave in the schools of the region (the city of Murmansk, the town of Apatity, Settlement of Murmashy) special classes on electricity sources handling safety, as part of the events and actions under the World Day for safety and health at work, aimed at raising awareness of the OSH issues still unresolved.

At the State Enterprise “Zvyozdochka” (the affiliation of the Ship Repair Enterprise “Nerpa”), located in the town of Snezhnogorsk of the Murmansk region, an OSH week was arranged and held (in the period of May, 04 till 08, 2008). As part of this week, a factory seminar dedicated to the OSH connected problems was held. A contest for OSH requirements compliance by the employees was also held among the divisions of the company for the title “the Best Division in the Work Places Arrangement Complaint with the OSH Requirements” in the workshop areas. A contest among the division managers for the title “Most Competent Division Manager in the Area of OSH” was held covering two areas: 1). solving a test task and 2). case study analysis. The contest winners were awarded diplomas, certificates of merit and cups. The information on the OSH Week was highlighted in the factory newspaper.

The Board of the Committee for Health of the Murmansk region for the issues of occupational traumatism and diseases status recommended the public health entities of the region to participate actively in the World Day for safety and health at work.

The events connected with the World Day for safety and health at work make a positive impact on the propagation of ideas of strengthening OSH and employees' health, necessary occupational traumatism and diseases prevention oriented actions.

All this indicates that the Murmansk region is witnessing a bigger number of enterprises and organizations, interested in obtaining better working conditions, employees' life and health preservation. The Committee of Social Development is oriented on taking further activities targeted at propagation of healthy working conditions and enforcing employees' rights to safe occupational activities.

The results of the World Day for safety and health at work on the territory of the region are discussed at the session of the Regional Interdepartmental Commission for OSH.

### **6.2.2. Agreements on cooperation and participation in joint projects with the ILO, WHO and other international organizations or states (their alliances)**

International cooperation in OSH in Russia is based primarily on the interaction with the ILO Subregional Office in Moscow. At present, on the territory of Russia, several joint projects are being implemented, aimed at preservation of the manpower potential. They comprise such projects as the EuropeAid Project "Harmonization of the OSH and Safety Legal Basis", the ILO Project "Improvement of the OSH System in the North West of Russia". The main focus of the ILO Project is implementation of the OSH Management Systems with regard to the "ILO-OSH-2001" Guideline. The Guideline was developed on the basis of a large scale approach involving representatives of the three parts involved in social and labour relations affiliated with the ILO. It is based on the OSH principles accepted worldwide, and defined by the respective international labour regulating standards. Due to this, it is a unique and powerful tool in developing stable OSH oriented culture pursued at production facilities and elsewhere.

The positive impact made as a result of implementation of the OSH management systems (SUOT) at the level of organizations regarding both reduction of risks and hazards and productivity has been acknowledged by governments, employers and employees. The Project is financed by the Government of Finland. Implementation of the OSH Project, involving components of social partnership, management and with account of legal requirements reduces the differences in work conditions and contributes into winning higher living standards at the border with the Finland, which is at the same time the border with the EU for the Russian Federation.

The Murmansk region for the period of 2008–2009 was integrated into the effort under this Project as a «pilot» one for the Northwest of Russia. (In 2006–2007, the effort under the Project was made in Karelia and Saint-Petersburg.) The results of the project implementation cover a broad scope of issues: new opportunities for organizations and specialists, developing systems and programs in the OSH field, developing training courses and materials, enhancing social dialogue in the area of OSH, mass propaganda and information oriented activities. Pursuant to the ILO tradition, the results of the Project implementation will be forwarded to and used by all the parts involved in the tripartite social dialogue, primarily at production facilities.

The plan of the activities of the Murmansk region under the Project for the year 2008 was defined together with the ILO Subregional Office in Moscow, approved by Mr. V. Palkin, Minister of Social Development of the Murmansk region, and Ms. Elaine Fultz, Director of the ILO Office.

The Project involved 7 major entities of the region, as the "pilot" organizations. Under the Project, the Ministry arranged and held: seminar–conference "The State-of-the-art Approaches to OSH Management in Organizations" and a 2-day international practical seminar on the aspect "Assessment and Management of Risks in the OSH Management Modern System in Organizations", involving representatives of the Institute of the Nordic Institute of Advanced Training in

Occupational Health (NIVA) and Finnish Institute for Occupational Health (FION), specialists of the Moscow ILO Office.

**6.2.3. Activities of ILO occupational safety and health regional and collaborating information centres (ILO/CIS), Activities of WHO centers in the field of occupational safety and health and European OSH Agency Centres.**

No regional and collaborating information centres of the ILO and the WHO, in the field of OSH, as well as European OSH Agency centres are available in the region.

# Analysis of strong and weak aspects (advantages and disadvantages) of the regional system of occupational safety and health management

## 7

The strong aspects of the OSH management system in the Murmansk region can be named as follows:

- Regional Law on “On State Management of Occupational Safety and Health on the Territory of the Murmansk Region”;
- Planning at the regional level of events and actions aimed at improvement of OSH by applying a program and target method;
- Stable interaction and cooperation of the state bodies of executive power of the Subject, bodies of oversight and control, trade unions and associations and well proven information exchange on the issues of OSH therewith;
- Creating and keeping by the executive power body of the Murmansk region functioning in the area in OSH (the Ministry of Social Development of the Murmansk region) of a database on severe occupational traumatism and electronic Registry of work places according to the working conditions of the Murmansk region.

The weak aspects of the regional system of OSH management system can be named as follows:

- An insufficient number of the personnel for OSH in the state bodies of executive power and their total absence in municipalities;
- No regional information resources in OSH;
- No unified information database of data on OSH status, occupational traumatism in the Murmansk region.



# 8

## **General conclusions with regard to the data of the Regional Profile**

For the purpose of a more effective implementation of the state policies in OSH, through OSH state management in the Murmansk region, it is necessary to exercise the following:

1. Update and improve the regional and regulatory legal basis in OSH, including the Law of the Murmansk region “On State Management of Occupational Safety and Health in the Murmansk region”;
2. Implement events of the Ministerial Target Program “Improvement of OSH and Work Conditions in the Murmansk Region” for the period of 2009 – 2010.
3. Involve widely Administrations of the municipalities on the territories of concern in OSH management;
4. Develop the occupational safety and health management systems in small and middle size businesses.
5. Improve OSH training provided for managers, specialists, individual categories of insured workers, including remote OSH training techniques and testing procedures.
6. Improve information and awareness in the area of OSH on the territory of the region involving printed and electronic media and on the basis of target information resources.

## 9.1. List of basic regional laws and by laws in the field of occupational safety and health

- Charter (Fundamental Law) of the Murmansk region;
- Law of the Murmansk region “On State Management Occupational Safety and Health on the Territory of the Murmansk region” (No. 954-01-ZMO);
- Ordinance issued by the Governor of the Murmansk region dated from 07.06.1999 No. 242-PG “On Occupational Activities at Cold Time on the Territory of the Murmansk region”;
- Ordinance issued by the Governor of the Murmansk region dated from 15.06.2000 No. 254-PG “On Personal Protection Equipment for Employees of Organizations and Entities of the Murmansk region”;
- Ordinance issued by the Government of the Murmansk region dated from 13.07.2006 No. 273-PP/7 “On the Regional Target Program “Improvement of OSH and Work Conditions in the Murmansk Region for the period of 2007–2008”;
- Ordinance issued by the Government of the Murmansk region dated from 23.05.2007 No. 241-PP “On the Regional Interdepartmental Commission for Occupational Safety and Health”;
- Ordinance issued by the Government of the Murmansk region dated from 28.05.2007 No. 256-PP “On the Regional Contest for the Best OSH Oriented Activities”;
- Ordinance issued by the Government of the Murmansk region dated from 24.09.2008 No. 457-PP “On the Administration Regulation of the Committee for Labour and Social Development of the Murmansk Region in Rendering the State Service “The State Expertise of Attestation of Working Conditions”.

## 9.2. List of agreements signed between employees’ and employers’ associations

Agreement signed between Association of the Trade Union Organizations “Murmansk Regional Council of the Trade Unions”, Regional Association of Employers “Union of Industrialists and Entrepreneurs of the Murmansk region” and the Government of the Murmansk region, signed for the period of 2009-2011;

Agreement signed between the trade unions and state enterprises of road construction and maintenance of the region (2006-2008);

Agreement signed between the Committee for Education and Committee of the Trade Union of Employees of Science and Education (2006–2008);

Agreement signed between the Committee for Culture and Arts of the region and Murmansk Regional Organization of the Russian Trade Union of Culture Workers (2007–2010);

Agreement signed between the Committee of United Trade Union of the Headquarters and Control Boards of the Northern Navy and Command of the Northern Navy Headquarters (2006–2009);

Agreement signed between the Committee of Health and Murmansk Regional Organization of the Trade Union of Public Health Employees of the RF (2008–2010);

Agreement covering the Organizations headed by the Chief Department of the Ministry for Emergencies of Russia in the region (2007–2009);

Agreement covering the Housing and Communal Services of the region (2008–2010).

### **9.3. List of basic web sites in the field of occupational safety and health and other information resources**

[www.gov-murman.ru](http://www.gov-murman.ru) – official portal of the bodies of executive power of the Murmansk region;

[www.mchsmur.narod.ru](http://www.mchsmur.narod.ru) – official web site of the Chief Administration of the Ministry for Emergencies of Russia in the Murmansk region;

[www.fss.ru](http://www.fss.ru) – official web site of the State Entity – Murmansk Regional Department of the Social Insurance Fund of the RF ;

[www.tn51.ru](http://www.tn51.ru) – official web site of the Administration for Technological and Environmental Oversight of the Federal Service for Environmental, Technological and Nuclear Oversight (Rostekhnadzor) in the Murmansk region;

[www.mcsm.ru](http://www.mcsm.ru) – official web site of the Federal State Entity the Murmansk Center for Standardization, Metrology and Certification;

[www.iimm.kolasc.net.ru](http://www.iimm.kolasc.net.ru) – official web site of the Institute of Informatics and Mathematical Simulation of the Technological Processes of the Kola Scientific Center of the Russian Academy of Science (RAS);

[www.goi.kolasc.net.ru](http://www.goi.kolasc.net.ru) – official web site of the Mining Institute of the Kola Scientific Center of the RAS.

### **9.4. List of basic regional periodical publications (journals) covering the issues of occupational and industrial safety and health and relevant issues**

On January, 11, 1993, in the North of Europe, a new generation political entity, a new commonwealth of countries emerged – the Barents / Euro-Arctic region. In the conditions of the ongoing globalization, it is information networks that determine efficiency of the cooperation of the Barents region countries in various areas, including those connected with the issues of OSH and occupational health. The decision on joint publication of the information newsletter in two languages (Russian and English) “Occupational Health in the Barents region” (Barents Newsletter on Occupational Health and Safety) was taken on August, 29, 1997, at an international seminar dedicated to cooperation between research institutes of the Barents region, involving the issues of occupational safety and health. The Newsletter is intended, first of all, to disseminate information, which updates on projects planned, and post messages, which update on progress made during implementation of

various programs. The second important task the Newsletter is challenged with is inculcating in the public mind the idea of integrity of working conditions and public health.

The first issue of the Newsletter was published in November of 1998, and it had been “blessed” by Kofi Annan, the UN Secretary General. The Newsletter received acclaim of the international organizations: President of the ILO Juan Somavia propagates the «SafeWork Program, and President of the WHO Gro Harlem Brundtland comes up with the issues of women’s labour on the journal pages. On the Russian behalf, the Newsletter is supported by Professor Chashchin V.P., one of the Russian leading specialists in occupational health.

Over the ten year long period (1998–2008), the “Barents Newsletter on Occupational Health and Safety” periodical was posting almost annually scientific materials and reports of domestic and foreign researchers on the issues of OSH covering the region of concern. The periodical is released three times a year.

The Institute of Informatics and Mathematical Simulation of the Technological Processes of the Kola Scientific Center of the RAS (town of Apatity), since 1998, has been publishing the “Management of Safety of Natural and Industrial Systems” subject collection. The results of theoretical and applied research represented in the collections (since the period from the initial date of publication, six issues have been published) update on the state-of-the-art tendencies in solutions to the problems of industrial and environmental safety in the region, including those of OSH.

In addition to the above periodicals, the region, under the auspices of the “Union of Industrialists and Entrepreneurs (Employers) of the Murmansk region” has published “The North Industrial” monthly information and practical journal, where the “Occupational Safety and Health” section has been highlighting systematically the issues of occupational safety and health, and also issues of health of the working population. For example, the “The North Industrial” Journal, No 1-2 (17-18) 2008, published the Article written by Olshevskaya S. “Putting at Risk an Employee’s Health does not pay” (P. 44-47), which provides a detailed review of the current status of OSH in the region, as of the end of 2007, followed by elaborating conceptual approaches towards the issues of OSH, which the Committee of Social Development of the Murmansk region came up with together with the ILO Subregional Office, on the basis of the ILO OSH Project in the Northwest of Russia.

## **9.5. List of basic monographs, course and study books, as well as journal articles published in the region covering the issues of occupational safety and health and relevant issues**

The list of basic publications on OSH, industrial safety, relevant issues of human activities safety, published in the region over the recent three year long period (2005-2007) has been included into the list in Appendix II. The List has been formed in the non-alphabetical order, and from the organizational point of view, it covers the regional enterprises and organizations, involved in the area of occupational safety and health and relevant issues. This List is based on the list of the main publications covering the issues of concern, provided by the catalogues of the regional libraries, and in particular: the Murmansk State Regional Universal Scientific Library, subordinate libraries of the research institutes of the Kola Scientific Center of the RAS (the Mining Institute of the Institute of Informatics and Mathematical Simulation of the Technological Processes of the Kola Scientific Center of the RAS – the town of Apatity) and the Library of the Scientific and Research Laboratory of the Federal State Entity “The North West Scientific Center of Occupational Health and Public Health” affiliated with the Rospotrebnadzor Agency (the town of Kirovsk). The List of publications in Appendix II is given in the chronological order.

# 10 Description of methods of assessment for various indicators and rates used in the Profile

## 10.1. Description of the methodology of statistical method of occupational safety and health analysis, its characteristics and basic indicators

At present, the Russian practice of the OSH research applies the following traditional analysis methods: statistical, group, topographic, monographic, economic, etc. In foreign countries, the above classical methods of analysis are being abandoned gradually, with the method of the «acceptable risk» being used more frequently. Nevertheless, as of today, the most applicable analysis method, for example, for occupational traumatism and occupational diseases in Russia is that of the statistical method, which is to be touched upon in a detailed way, due to the fact, that the generalizing indexes in the Regional Profile presented are given on the basis of the indexes obtained as a result of this method applied (see C. 6).

When using the *statistical method*, an analysis of traumatism is made on the basis of major data arrays given in covering the accidents occurring (Acts in accordance with the Form N-1, reports on traumatism in accordance with the Form 7, logs of registration and account of accidents, etc.), the statistical survey generated over a long time (for example, beginning from the organization's initial activities). By applying this method, it is possible to identify the patterns of traumatism occurrences, study the characteristics of its historical dynamics, group employees, exposed to traumatism at production facilities according to different characteristics (that of sex, age, work track, shift time, etc). In using this type of traumatism analysis, research is done into a certain limited complex of indexes, both in the form of absolute and relative statistical values. The absolute indexes comprise, for example, the number of accidents, number of employees suffered, number of working disability days due to traumatism cases, amount of funds spent for OSH oriented activities, expenditures incurred in compensating occupational traumatism, etc. The traumatism relative indexes are calculated and presented in the form of the ratio of two absolute values, being the measure of correlation between them, and, as a rule, calculated in a majority of cases, as dimensionless factors. Such indexes, as compared to those of absolute ones, require that unified methodological approaches to the acquisition, summary and analysis be applied, which enables to compare various enterprises, sectors and industries of the economy. The standard indexes of statistical analysis of the occupational traumatism level definition comprise:

– *frequency factor*  $K_f$  of occupational traumatism, which is determined by the total number of occupational accidents OA (usually, covering a year's time) to the average number of employees ( $R$ ) for this period per 1000 employees:

$$K_f = \frac{OA}{R} \times 1000 \quad (10.1)$$

The practical analysis of occupational traumatism also tends to calculate production indexes taking into account the occupational traumatism frequency factor, ( $K_f$ ), in the form of the following partial values:

a) *time-frequency index*  $K_{h(T)}$  of the occupational traumatism, determined by the total number of occupational accidents OA to time ( $T_{h-h}$ ) in man hours, during which the employees are exposed to traumatism risk:

$$K_{h(T)} = \frac{OA}{T_{h-h}} \times 10^6 \quad (10.2)$$

b) *time-frequency index*  $K_{h(T)}^*$  of occupational traumatism, determined by the total number of occupational accidents OA to time ( $T_{h-shift}$ ) per 100 thousand of man shifts:

$$K_{h(T)}^* = \frac{OA}{T_{h-shift}} \times 10^5 \quad (10.3)$$

c) *frequency index*  $K_{h(Q)}$  of the occupational traumatism, *accounting the production characteristics*, in ratio to the actual production volumes (Q) at a production facility. In doing so, for the mining production, the Q values can be presented in the form of the amount of raw materials produced (for example, millions of tons of ore) covering the period of time analyzed:

$$K_{h(Q)} = \frac{OA}{Q} \times 10^6 \quad (10.4)$$

d) *frequency index*  $K_{f(fat)}$  of the occupational traumatism inducing *fatality*, determined similarly to the calculation of the «classical» frequency factor ( $K_f$ ) in accordance with Formula (10.1), except for the difference, provided by the fact that in the fraction numerator index the number of occupational accidents causing fatalities ( $OA_{(fat)}$ ) is presented:

$$K_{f(fat)} = \frac{OA_{(fat)}}{R} \times 1000 \quad (10.5)$$

The structure of the basic index  $K_h$  is the same in the equations (10.2) – (10.5).

In addition to the five traditional quantitative indexes of occupational traumatism, the domestic statistical analysis applies the following factors:

– *factor of severity*  $K_T$  of occupational traumatism, calculated as the ratio of the total number of man hours of temporary disability, occurring due to accidents ( $\Sigma D_{OA}$ ), to the total number of accidents (OA):

$$K_T = \frac{\Sigma D_{OA}}{OA} \quad (10.6)$$

– *factor of general traumatism (or disability factor)*  $K_{general}$ , which determines the average disability duration per 1000 employees and is calculated as the product of the frequency ( $K_f$ ) and traumatism severity ratios ( $K_T$ ), which enables to provide an integrated assessment of the traumatism status as the total index:

$$K_{general} = K_f \times K_T \quad (10.7)$$

– *factor of general labour losses*  $K_{tot}$  due to occupational traumatism, which calculation is possible only in preliminary calculation of the factors  $K_f$ ,  $K_T$  and fatality inducing frequency index ( $K_{f(fat)}$ ):

$$K_{tot} = K_f \times K_T + K_{f(fat)} \times 6000 \quad (10.8)$$

where the number 6000 characterizes conditional average statistical losses per one accident inducing fatality (in some cases, this value is determined with the range of 6000–7500 days, depending on the characteristics of the production process).



## **10.2. Description of the state-of-the-art methodological approach of the statistical analysis of the regional level of OSH, by way of introducing special kinematic characteristics of occupational traumatism (the case study of the Mining and Industrial Complex of the Murmansk region)**

It is common knowledge that the indexes of occupational traumatism change according to a certain pattern, featuring characteristics for every specific production. As the accident event rate is never equal to zero, it is necessary to forecast the history of traumatism at enterprises and determine a set of preventive events, aimed at its reduction. In this context, to make a comprehensive analysis of occupational traumatism, in addition to the standard statistic indexes reviewed above in para.10.1, the research team of the Scientific Laboratory of the State Entity 'North-west Centre of Hygiene and Public Well-being' headed by Dr. Karnachov I.P., chief scientist of the Department of Occupational Health and Public Pathology of the Rospotrebnadzor Agency (town of Kirovsk, Murmansk region), has been offered a new methodological statistical analysis approach, which provides an analysis of traumatism dynamic development, by means of applying and research of the kinematic traumatism characteristics (KTC – hereinafter).

(A more detailed description of this methodology is given in the Monograph written by Karnachov I.P., et al. 'Occupational safety and health in the area of production (the example is the Mining and Energy Complex of the Kola Polar Areas) – Apatity, published by Kola Scientific Centre of RAS, 2006, and in the article: Karnachov I.P., et al. 'Analysis of Occupational Safety Level at the JSC «Apatit», by applying the kinematic characteristics of occupational traumatism. // Occupational Safety in Industries. – 2007. – No 6. – P. 44-47.)

Let us review the provisions of this approach and results acquired in using this methodology, by taking the example (case study) of the biggest Mining Enterprise located in the region – the JSC "Apatit".

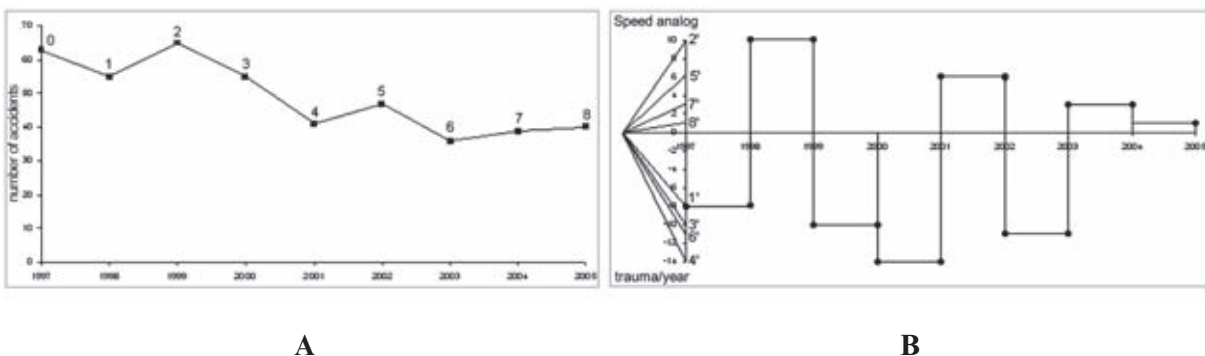
Application and analysis of the occupational traumatism history based on KTC will enable to analyze on a more efficient level such a complex phenomenon by way of using a quantitative assessment of these spatial and time connected characteristics. If the concept of any natural process progress (motion) mirrors the concept of evolution in general, then the velocity of progress (motion rate) will enable to quantitatively assess the rate of this evolution, and acceleration will enable to assess the velocity of rate change over time. Design of speed and acceleration curves analogs for the traumatism progress has been conducted in a way similar to the graph analytical differentiation method used in machine mechanics, applied for building up kinematic graphs. This method is a graphic interpretation of the analysis of the object motion law by way of building graphs of kinematic characteristics, interacted with one another. The kinematic graphs are more visual than tables, and besides, it is sufficient to build up one graph only out of the three graphs (those of progress (motion), rate and acceleration), the other two can be obtained by graphic differentiating or integrating of the first one. Such a methodological approach enables to analyze the patterns of kinematic parameters change, occurring over the entire cycle of the traumatism progress ('motion') in time. Let us dwell briefly on the new approach mentioned and applied towards assessing the occupational safety level, from the point of occupational traumatism.

In calculating the relative values of comparison as the analog of traumatism rate and acceleration and considering them as integral with the absolute indexes, indicated by them (the number of accidents), we will be able to more accurately characterize the kinematics of the process involved, by drawing analogy between the study of the object mechanical motion and "motion" of traumatism. In the general case, the motion occurs featuring a variable of the magnitude and rate attitude vector. If the motion pattern is slow, then the rate value, as a negative function decreasing in modulo, is an increasing function, and acceleration is positive in this case. Besides, the following characteristics

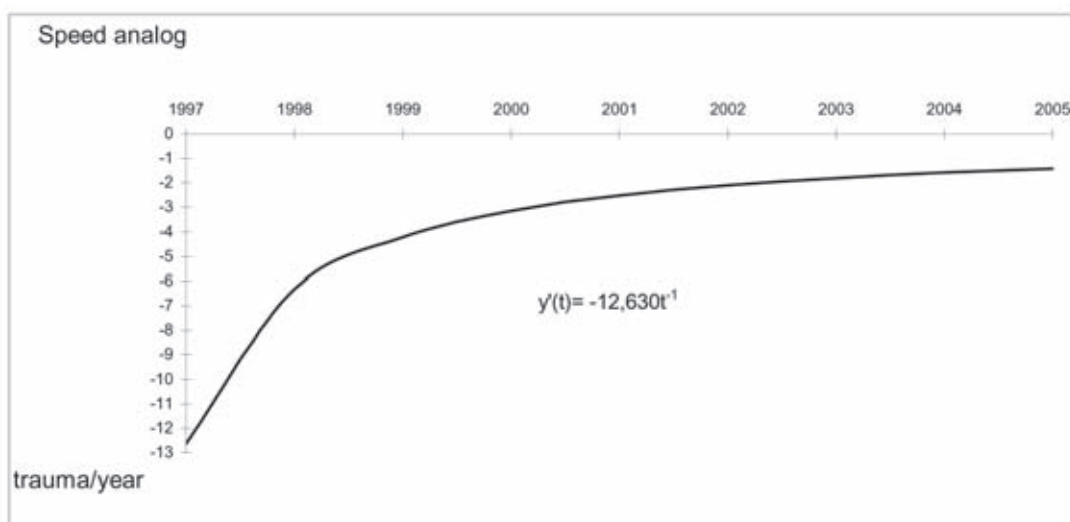
of such a motion pattern are known: if the indexes of rate and acceleration are different, the process studied also characterizes a slow motion. As the rate and acceleration are relative statistical values (as they are the quotient obtained by dividing one absolute value by another one), they are required to be assessed in respective units of measurement. From the point of view of analysis of traumatism, the rate analog is likely to be expressed in the number of accidents, which employees suffer at production facilities, covering the period of time registered (for example, a year or quarter). And the acceleration analog, being the time derivative of rate, will be measured by the ratio of number of traumas to the year's time (quarter's time) divided by a year. Let us review the application of the method of graphic differentiating to obtain the KTC value (in the period of 1997-2005), according to the following three variants: 1) for the actual annual data on traumatism; 2) for the trend annual traumatism model; 3) for the trend traumatism model taken together with the fluctuation value (Fourier series type), on the basis of quarter data acquired over the same period.

Figure 10.1 shows the graph of actual annual data covering occupational traumatism and KTC definition as the rate of traumatism 'progress' at the enterprise of concern (JSC "Apatit"). The fact of no graphs for KTC definition available in the form of the traumatism acceleration analog is explained by the fact that the minimum and maximum values of the graph coordinates coincide with the zero values of acceleration. The graphs show that the positive and negative values denoting the speed analogs are distributed in the following manner: equal distribution for the JSC "Apatit" (+ 4 and - 4). The rate analog for the JSC «Apatit» by the maximum value coincide with in the time interval of 2000–2001, and having the modulo negative value, it is equal respectively to: - 14 traumas/year. The maximum speed analog value has the same value for this entity  $\pm 1$  traumas / year. However, the disadvantage, given such a graphic differentiating pattern according to the actual data, is in having no acceleration analog graphs available, due to the «purposive» maximum or minimum speed value obtained.

An option which enables to avoid the disadvantage mentioned is the application of the graphic differentiating method for the trend models of occupational traumatism over the period of concern. By applying the trend simulation technique, it is possible to perform a selection of the optimal type of the trend according to the maximum value of the determination factor, with a logarithmic type analytical function resultant thereof. Then, having differentiated analytically the trends of traumatism, we obtain graphically the sequence of traumatism acceleration and speed analogs. The graphs show (Fig.10.2), that a slowing traumatism 'progress' pattern can be seen, which manifests itself in the first period of concern – in the period of 1997–2001. Then, beginning from 2002, the traumatism speed modulo is rendered almost constant (in the case of JSC "Apatit", its value ranges from 5.6 to 4.0 traumas /year).



**Fig. 10.1. Initial linear diagram of actual data of annual occupational traumatism covering 1997-2005 (A) and graphic differentiation by the tangent method used to obtain the speed analog of the "motion" thereof (B) JSC "Apatit"**



**Fig. 10.2. Graphs of speed and acceleration analog models of the occupational traumatism “progress” for the JSC “Apatit”**

The special feature mentioned depicts the transition of the speed value model to a conditional “zero” level. A similar picture can be seen also for the acceleration analysis component. This time period of the traumatism ‘progress’ cycle depicts its transition to a homogenous evolution cycle, which characterizes the threshold value of trauma risk for each specific entity.

However, the characteristics of the trend component depict the smoothed “averaged” pattern of its evolution, which does not enable to evaluate the actual fluctuations of traumatism ‘progress’ speed and acceleration. Due to this, it is necessary to analyze according to the KTC value, with account of the quarter (interim) data covering occupational accidents, which makes it necessary to use the trend model together with variation (that is, deviations in the form of fluctuations) of the Fourier series type. As in the third case, according to the research reflected in the Monograph mentioned above, the respective analytical expressions were obtained. The results of the KTC simulation values have been brought in the Table:

**Table of KTC values for the “Apatit” JSC**

Research time spans		Number of accidents		Analog of traumatism “patterns”	
Year	quarter	Y(actual)	Y(theoretical)	speed	acceleration
1997	1	20	20.060	8,723	-890,935
	2	13	13.039	-41.420	574.096
	3	15	14.906	37.606	-199.677
	4	15	15.093	-30.871	-37.618
1998	5	13	12.876	11.636	102.619
	6	14	14.110	-2.614	26.089
	7	15	14.866	8.839	-161.648
	8	13	13.118	-23.629	129.354

Research time spans		Number of accidents		Analogues of traumatism “patterns”	
Year	quarter	Y(actual)	Y(theoretical)	speed	acceleration
<b>1999</b>	9	13	12.859	19.046	-53.946
	10	13	13.124	-13.042	197.935
	11	18	17.856	67.836	20.293
	12	21	21.131	-58.606	-659.450
<b>2000</b>	13	13	12.851	24.081	1023.193
	14	22	22.133	7.257	-1129.010
	15	11	10.846	-75.643	600.885
	16	9	9.134	31.827	3.043
<b>2001</b>	17	10	9.843	-25.273	-162.843
	18	7	7.140	7.386	323.865
	19	12	11.835	33.655	-136.945
	20	12	12.143	-39.366	-391.038
<b>2002</b>	21	6	5.834	0.427	646.813
	22	11	11.148	28.949	-329.259
	23	14	13.831	21.384	256.454
	24	16	16.153	-28.889	-809.453
<b>2003</b>	25	6	5.823	-33.197	993.515
	26	12	12.159	56.185	-618.842
	27	10	9.817	-60.175	172.069
	28	8	8.168	44.641	174.637
<b>2004</b>	29	12	11.805	-21.507	-277.436
	30	9	9.182	12.187	222.460
	31	11	10.790	-12.705	-216.876
	32	8	8.205	0.763	196.252
<b>2005</b>	33	10	9.755	5.038	-52.840
	34	10	10.265	3.607	-81.213
	35	9	8.638	-21.180	68.713
	36	10	10.599	8.723	-890,935

Separately, the quarterly based combination of traumatism KTC ‘progress’ has been brought in the Table below:

**Statistical summary quarterly-based KTC values for the JSC “Apatit”**

Quarter	Frequency of occurrence of uniformly accelerated traumatism progress
I	5(max)
II	2
III	3
IV	7 (max)

The comparative analysis of the databases of KTC uniformly accelerated combinations shows that the maximum coincidence frequency complies with the 1 and 4 quarters.

To sum up the given paragraph, it should be remarked that the KTC type statistical analysis indexes applied provide an additional tool for control and management of occupational safety, as their analysis enables to assess the pattern of traumatism evolution at a specific enterprise, according to the level of tolerable risk, determined by a uniformly accelerated traumatism ‘progress’ pattern. The authors of this new analysis approach towards occupational traumatism assessment believe that this method has a large potential not only by virtue of developing an analytical model of occupational safety for industrial facilities of the region, but also from the point of occupational traumatism and a possible predictive modeling of a traumatism connected event, in order to assess its dynamic in future. All this will enable to undertake all necessary technical, technological, medical and remedial and other events and actions at industrial facilities, as preventive measures aimed at the seasonal regulation of the tolerable risk level, determined by the number of accidents.

# General information on the region



## **A. General information on the Administration structure in the Murmansk region**

### **A.1. Information of the Legislative, Executive and Court Power in the Region**

#### *Legislative Power*

The Legislative Power, pursuant to the Charter of the Murmansk region, is exercised by the Murmansk Regional Duma – the supreme and only legislative (representative) body of the state power of the Murmansk region. The Murmansk Regional Duma is a permanently continuing unicameral body. The authority of the Murmansk Regional Duma is exercised by Deputies elected by the citizens of the Russian Federation, who live on the territory of the Murmansk region and are eligible, under the Federal Law, to effective voting right, on the basis of universal, direct and equal suffrage exercised by secret ballot.

In order to enforce their authority and arrange their activities, Murmansk Regional Duma elects its Chairman and his/her Deputies, forms committees, elects Chairmen thereof. In the Murmansk Regional Duma, deputy associations (factions) are set up, which comprise deputies elected as part of the list of candidates, and also can include deputies elected in single or multi mandate member constituencies. Deputies elected in single or multi mandate member constituencies, and not belonging to deputy associations (factions), are eligible to set up standing deputy groups.

The Murmansk Regional Duma adopts and passes the Charter of the Murmansk region, amendments thereto, exercises legislative regulation under the subjects of authority of the Murmansk region and subjects of joint authority of the Russian Federation and Subjects of the Russian Federation as part of the authority of the Murmansk region, exercises and enforces other authority provided by the Constitution of the Russian Federation, applicable Federal Laws, Charter and Laws of the Murmansk region.

#### *Executive power*

The executive power is exercised by the Governor of the Murmansk region - the supreme Official of the region, by the Government of the Murmansk region, which is the supreme body of executive power of the region, and other bodies of executive power of the Murmansk region, formed pursuant to the Charter of the Murmansk region.

Until 2006, the Governor of the Murmansk region had been elected by citizens of the RF, who lived on the territory of the Murmansk region and were eligible, pursuant to the Federal Law, to active voting right, on the basis of universal, direct and equal suffrage exercised by secret ballot.

Since 2006, the authority of the Governor of the Murmansk region for a five year time is empowered by the Murmansk Regional Duma submitted by the President of the Russian Federation.



In the Murmansk region, a system of the bodies of executive power (Administration of the Region) has been established. The organization of the bodies of state power of the Murmansk region is approved by the Governor

#### ***Organization of the bodies of executive power of the Murmansk region***

- Government of the Murmansk region;
- Ministry for Finances of the Murmansk region;
- Ministry for Economic Development of the Murmansk region;
- Ministry of Health of the Murmansk region;
- Ministry for Education of the Murmansk region;
- Ministry of Social Development of the Murmansk region;
- Ministry for Natural Resources and Environment of the Murmansk region;
- Ministry for Industries and Energy of the Murmansk region;
- Ministry for Territorial Development, Construction and Housing and Public Services of the Murmansk region;
- Administration of the Affairs of the Government of the Murmansk region;
- Committee for Tariff Regulation of the Murmansk region;
- Committee for Fishing Industry of the Murmansk region;
- Committee for Agriculture and Provision Supply of the Murmansk region;
- Committee for Veterinary and Wild Life Protection of the Murmansk region;
- Committee for Physical Culture and Sports of the Murmansk region;
- Committee for Culture and Arts of the Murmansk region;
- Committee for Forestry of the Murmansk region;
- Committee for Property Relations of the Murmansk region;
- Committee for Transport and Communications of the Murmansk region;
- Committee for Legislative Drafting Activities and Local Government of the Murmansk region;
- Administration for Youth of the Murmansk region;
- Administration of Civil Registry Office of the Murmansk region;
- Archive Administration of the Murmansk region;
- Administration of the State Service for Population Employment of the Murmansk region;
- Administration for Licensing of the Murmansk region;
- Administration for Control over Quality of Medical Aid and Licensing of Individual Activities of the Murmansk region;
- Administration for Government Work of the Murmansk region;
- State Housing Inspection of the Murmansk region;
- State Inspection for Oversight over Technical Status of Self-Propelled Machines and Other Types of Machinery of the Murmansk region;
- State Inspection for Protection, Control and Regulation of Wild Life Objects and their Habitat of the Murmansk region.

#### ***Court System***

At present, on the territory of the Murmansk region, justice is delivered by the Federal Courts and Justice of the Peace (Magistrates), which constitute the Court System of the Murmansk region. The Federal Courts comprise: Murmansk Regional Court, district Courts, military courts, which constitute the system of general courts, Arbitrage Court of the Murmansk region, which belongs to the system of federal arbitrage courts. The Courts of the Murmansk region comprise Magistrates (Justice of the Peace), who are the judges of general jurisdiction.

The Murmansk Regional Court is the Supreme Court in the system of general jurisdiction courts of our region. The authority of the Court comprises review of cases of the most complicated nature belonging to the general court jurisdiction, complaints in appeal and supervisory procedures. The Murmansk Regional Court acts as part of the Presidium, Judicial Board for civil processes, and

Judicial Board for criminal processes. The Murmansk Regional Court is the upper authority over the district courts acting on the territory of the region.

The district courts of the Murmansk region, as part of their authority, review cases as the Court of the first instance (except for cases which pertain to the authority of the Magistrates of the Murmansk Regional Court and Supreme Court of the Russian Federation) and second instance and exercise other authority specified by the applicable Federal Laws. The district courts are the upper authority over the Magistrates acting on the territory of the respective district court area of the Murmansk region.

The Magistrates of the Murmansk region, as part of their authority, review civil, administration and criminal cases as the Court of the first instance. The military courts of the Murmansk region are formed according to the territorial principle (at the place of military and navy disposition) and exercise court power in military forces, bodies and formations, where, under the Federal Law, military service is specified. The military courts of the Murmansk region, as part of their authority, review cases as courts of the first and second instances, in the order of supervision and upon discovery of new facts.

The Arbitrage Court of the Murmansk region, as part of its authority, reviews cases as court of the first trial procedure, and also upon discovery of new facts. The Arbitrage Court of the Murmansk region reviews, in the order of action proceedings, economic disputes and other cases, which arise out of civil relations and other cases connected with entrepreneurial and other economic activities performed by legal entities and individual entrepreneurs. The Arbitrage Court of the Murmansk region reviews, in the order of administration jurisdiction, cases of economic disputes, which arise out of administration and other public legal relations, connected with entrepreneurial and economic activities performed by organizations and individuals. The Arbitrage Court of the Murmansk region reviews, in the order of special jurisdiction, cases on ascertainment of facts legally important for occurrence, change and termination of legal rights of organizations and individuals in the area of entrepreneurial and other economic activities.

## **A.2. Administrative division of the region and relevant levels of administration**

### *Administration and territorial structure*

The territory of the modern Murmansk region has changed its administration and internal structure repeatedly. In December of 2004, a number of laws were passed on the status, titles and territories of the municipalities, and the Law «On Approval of Borders of Municipalities in the Murmansk region». (No. 582-01–ZMO dated from 29.12.2004). Pursuant to these documents, the Murmansk region comprises today the territorial units of the following kinds:

a) administration and territorial units:

- City of Murmansk – the administration center of the region;
- towns with territories under their authority: Apatite, Kandalaksha, Kirovsk, Monchegorsk, Olenegorsk, Polarnye Zory;
- districts: Kovdorsky, Kolsky, Lovozersky, Pechengsky, Tersky;
- ZATO (closed administration and territorial formations): towns of Zaozersk, Ostrovnoy, Polyarny, Severomorsk, Snezhnogorsk, settlement of Vidyaevo; Skalysty (adm. Center Gadjevo).

6) communities.

The communities located on the territory of the Murmansk region are divided into urban and rural. The urban communities comprise towns and settlements of the urban type. The rural communities comprise settlements, not assigned in due order to the category of cities or settlements of the urban type or assigned in due order to the category of rural settlements.

The communities (settlements) of the urban type: Verchnetulomsky, Zelenoborsky, Kildinstroy, Molochny, Murmashy, Nickel, Pechenga, Revda, Roslyakovo, Safonovo, Tumanny, Umba.

### ***Local Government***

The local Government of the Murmansk region was established pursuant to the Constitution of the RF. The majority of the municipalities of the Murmansk region were established in 1990 – 1998. In the year 2001, in the Murmansk region, titles, borders and structure of the territory of 21 municipalities were established:

- city of Murmansk,
- town of Kola;
- towns with the territories under their authority – Apatity, Kandalaksha, Kirovsk, Monchegorsk, Olenegorsk, Polarnye Zory;
- districts – Kovdorsky, Kolsky, Lovozersky, Pechengsky, Tersky; communities Murmashy, Tumanny, Molochny, Teriberka;
- ZATO – Vidyaevo, Zaozersk, Ostrovnoy, Polyarny, Severomorsk, Skalysty, Snezhnogorsk.

In 2003, 18 new municipalities were established, out of which nine are urban (Nickel, Zapolyarny, Pechenga, Korzunovo, Verhnetulomsky, Kildinstroy, Kandalaksha, Zelenoborsky, Umba) and nine are rural (Mezhdurechye, Pushnoy, Tuloma, Ura-Guba, Lovozero, Revda, Zarechensk, Alakurti, Varzuga) communities.

Thus, in the year 2008, on the territory of the Murmansk region, 12 municipalities, 14 urban districts (okrugs), 5 municipal districts, 13 urban and 10 rural communities (settlements) were available. The structure of municipal bodies of local government is designated in accordance with the applicable Laws and Charters of the municipalities.

## **B. General data on the economic and human resource status**

### **B. 1. Demographic data**

The number of the resident population of the Murmansk region, as of the beginning of 2009, amounted to 842.5 thousand people, including 768.6 thousand people – urban population and 73.9 thousand people – rural population.

The number of the resident population of the Murmansk region in 2008, as averaged, amounted to 846.7 thousand people.

Since 2005, the Murmansk region has witnessed a positive tendency towards a reduction in the natural decline of the population, growing birth rate indexes, lower mortality rate, lower migration losses. In covering a number of positions, this tendency continued in the year 2008.

In covering the results of 2008:

- the natural decline decreased: in 2008, it totaled -1037 people, natural loss rate totaled – 1.3 people per 1000 of the population, which is the lowest index since 2000 (in 2007 – 1190 people, – 1.4 people per 1000 of the population);
- Birth rate increased: 9136 children were born (by 315 children more than in 2007), natality increased and totaled 10.7 people per 1000 of the population (in 2007 – 8821 people were born, natality reached 10.3 newborns per 1000 people);
- Number of repeated births increases: in 2008, second and other newborns totaled 4.1 thousand children or 45.5 % of the all the children born (in 2007 - 43 % of the all the children born, in 2006 – 40%);
- Total birth rate (according to a preliminary estimate) totaled 1.279 (at the level of the previous year);
- Life time expected at the birth has been increasing since 2005, in 2008 this index in the Murmansk region remained at the level of 2007 and reached 66.58.

In the Murmansk region in 2008, as in general in the Russian Federation, a tendency was reported towards worsening of a number of demographic indexes:

- in 2008, 10173 people died, mortality rate reached 12.0 people per 1000 of the population (in 2007 – 10011 people died, mortality rate reached 11.7 of deceased per 1000 people), which is by 2.7 per thousand less than the all Russian index (mortality rate in the Russian Federation in 2008 totaled 14.7 deceased per 1000 of the population).

The main causes of mortality among the population of the Murmansk region, as the population of the Russian Federation, are the blood circulation disorders. In the structure of mortality causes, they made up 56.6% in 2008 (by 1% more than in 2007). The second place in the mortality structure is caused by tumors (13.4%, at the previous year level).

The proportion of the deceased due to external causes (accidents, trauma and intoxications, motoring accidents) decreased considerably and totaled 10.9% (in 2007 – 12.2%.);

In the structure of the population, the proportion of persons younger than the capable age is decreasing notably; the proportion of persons older than the capable age is increasing, the process of population's aging is reported. Due to the decrease in the age group of people younger than the capable age, the load on the capable population is decreasing – as of the early 2001, the capable to incapable age rate was 473 people (estimated as the number of those at a capable age to those at incapable, per one thousand people), as of the early 2008 – 451 people.

The number of pensioners increased by 0.7 % and, as of the end of 2008, totaled 244.7 thousand people, the age load factor (number of pensioners per 1000 of the population) increased by 1.8 % and totaled – 250.9 people.

The average age of the citizens of the region, as of the early 2008, totaled 36.4 years.

The rate of population loss (decline) since 2005 till 2007 was reported to have been decreasing: in 2005 the population of the region decreased by 8.2 thousand people, in 2006– by 7.6 thousand people, in 2007– by 6.0 thousand people, as compared to the previous year.

In 2008, the decline of the population increased and totaled 8.5 thousand people (1%), which was caused by a considerable growth of migration losses of the population (– 7417 people in 2008, as compared to – 4850 people in 2007).

**For the coming years, a further increase of the number of those leaving the region is forecasted, and so is an increase in the migration loss rate, predetermined by worsening material advantages available for those living in the extreme conditions of the Far North areas.**

Migration processes are determined by the status of the labour market, as well as unemployment rate in the region. A declining number of the unemployed has been reported in the region since 2000. In 2008, the labour market of the Murmansk region retained positive tendencies: the unemployment rate decreased, its duration and the tension factor are reported to have gone down:

- Number of those unemployed officially registered by the employment services had decreased by the end of the year by 16%;
- Load factor per one work place totaled 2.5 as to 2.6;
- Level of unemployment registered to the economically active population went down by 0.6 percent point and totaled 2.5%;
- unemployment duration (in average) totaled 3.6 months, which is by 1.2 months less than in the year earlier.

However, in November-December of 2008, a tendency towards a decrease in the demand of the enterprises and entities of the Murmansk region for work force claimed in the employment services and growth of the number of unemployed were reported.

In 2009, due to the crisis in the economy, the labour market of the Murmansk region is expecting to witness considerable changes in demand for and supply of workforce, including due to a bigger number of employees who enter the labour market for the first time, those resigned both due to their will free and those made redundant.

As of February, 18, 2009, the employment service had registered 13790 unemployed individuals (as of 31.12.2008 – 12601 people), or 2.8 % of economically active population.

Being determined mainly by the growing migration loss, the population is likely to decrease to 816 thousand people, as of the early 2013 (according to the data of Murmanskstat Agency).

For the period of up to 2013, the following is forecasted according to the data of Murmanskstat Agency):

- Further growth of the birth rate;
- Higher percentage of children, born second and further in families of the Murmansk region (45–46%);
- Higher total birth rate by 2013 to 1.39 births per one woman at age of 15–49;
- Higher mortality rate preconditioned by a high percentage of persons in the age structure of the population who are older than the capable age;
- Lower natural decline rate of the population due to growing indexes of the birth rate and more stable mortality rates.

## B.2. Industries/Sectors/types of economic activities

The dynamic of the number of economically active population, employment and unemployment:

(as of the end of the month)

	Economic-ally active population, thousand people	Including			Level of employment	Level of unemployment (%)		In % to the respective month of the previous year			
		employ- ed	unemp- loyed	of whom, registe- red <sup>1)</sup>		total	offi- cially registe- red	econo- mically active popula- tion	Including		
									emp- loyed	unemp- loyed	of whom, registe- red
<b>2007<sup>2)</sup></b>											
<b>Per year on average</b>	<b>500.5</b>	<b>467.9</b>	<b>32.6</b>	<b>14.9</b>	<b>93.5</b>	<b>6.5</b>	<b>3.0</b>	<b>97.3</b>	<b>97.5</b>	<b>94.2</b>	<b>87.6</b>
<b>2008<sup>3)</sup></b>											
January	497.0	465.0	32.0	14.4	93.6	6.4	2.9	98.0	98.5	91.4	82.8
February	497.3	465.0	32.3	14.6	93.5	6.5	2.9	98.3	98.7	92.8	85.4
March	497.0	465.4	31.6	13.9	93.6	6.4	2.8	98.6	99.0	92.1	84.6
April	496.2	465.2	31.0	13.2	93.8	6.2	2.7	98.8	99.2	93.4	85.2
May	495.3	465.9	29.4	11.6	94.1	5.9	2.3	99.0	99.6	91.3	79.5
June	495.0	465.8	29.2	10.6	94.1	5.9	2.1	99.3	99.7	92.4	76.7
July	494.4	465.5	28.9	10.3	94.2	5.8	2.1	99.2	99.7	92.6	75.2
August	494.0	465.5	28.5	9.8	94.2	5.8	2.0	99.2	99.7	92.2	74.0
September	493.5	465.2	28.3	9.9	94.3	5.7	2.0	99.1	99.6	90.7	74.0
October	493.5	464.5	29.0	10.2	94.1	5.9	2.1	99.2	99.7	92.1	73.6
November	494.7	464.5	30.2	10.6	93.9	6.1	2.1	99.5	99.9	94.4	74.0
December	494.3	462.3	32.0	12.6	93.5	6.5	2.5	99.2	99.2	99.1	84.2
<b>Annually on average</b>	<b>495.2</b>	<b>465.0</b>	<b>30.2</b>	<b>11.8</b>	<b>93.9</b>	<b>6.1</b>	<b>2.4</b>	<b>98.4</b>	<b>99.4</b>	<b>92.6</b>	<b>79.2</b>

<sup>1)</sup> According to data of the Administration of the State Service of Employment among the population of the Murmansk region.

<sup>2)</sup> Approved data provided by of random quarterly surveys of the population on the issues of employment.

<sup>3)</sup> As estimated.



### **B.3. Economic indexes**

(according to the data provided by the Ministry for Economic Development of the Murmansk region)

#### ***Industrial production***

In January-September of 2008, the industrial production reported a tendency towards growth with considerably higher rates as compared to the same period of 2007. In October, affected by the global financial and economic crisis, the growth rates slowed down, and in November – December, as compared to the previous period of the year 2007, the production volumes went down considerably. As a result, over the year's time, the industrial production index totaled 97.3 %, in covering the following types of activities: natural resources and minerals production – 92.5 %, manufacturing – 97.9 %, generation and distribution of electricity, gas and water – 100.4 %. In the mining industry, the amount of commodities produced, services rendered and works performed amounted to 60.3 billion rubles (170.3 % to the year 2007 in the actual prices), in the manufacturing – 51 billion rubles (81.1 %, which is explained by the prices for nickel about one half as low as in 2007), electricity, gas and water generated and distributed to the amount of 29.8 billion rubles (116 %).

#### ***Mining and raw materials production***

The hardest hit by the crisis were the entities and facilities of the mining industry, which is preconditioned first of all by lower demand for their production on both the international and domestic markets. In December, as compared to November, the situation at the mining facilities became better, the production volumes increased by 1.5 times. In total, over the year's time, the regional enterprises and entities produced 10.1 million tons of iron ore concentrate (102.1 % to 2007), 3.8 million tons of apatite (100 %  $P_2O_5$ ) concentrate (90.2 %). Productions of vermiculite (70.6 %), loparite (94.9 %), baddeleyite (93.8 %) and nepheline (52.2 %) concentrates, non ore based construction materials (95.3 %) decreased.

#### ***Manufacturing production***

The biggest proportion in the volume of production manufactured and shipped among the manufacturing productions is produced by the metallurgical and production of finished metal hardware items (67.1 %). The food products and relevant production, including beverages, constitute 11.9 %, means of transport and equipment – 8.8 %. The volume of metallurgical production had totaled 95.6 % by 2007. The volumes of copper (93.6 %) and nickel (95.4 %) production, finished metal based items (86.2 %) were reported to have decreased. The production of aluminum remained practically at the same level of the year 2007 (99.9 %). The production of food, including beverages, was reported to have increased by 1.4 %. The volumes of meat production (112.9 %), sausage products (111.1 %), meat semi finished products (112.6 %), whole milk dairy products (103 %), confectionary (110.5 %), flour (100.6 %), combined fodder (by 2.1 times) were reported to have increased. At the same time, the volume of bread and bakery products (92.7 %), vodka (80.6 %), beer (52.9 %), soft drinks (78.3 %) were reported to have decreased. The volumes of processing and canning fish and sea products by the coastal enterprises had totaled 100.2 % by 2007. In covering the rest of activities involved, the growth of the following production volumes was reported: in pulp and paper and printing production (103.4 %), machinery and equipment manufacturing (101.9 %), electrical, electronic and optical equipment (103.3 %), means of transportation and equipment (112.4 %).

The volumes of textile and clothing manufacturing (83.9 %), wood processing and wood based products (68.6 %), production of other non metal mineral products (97.6 %), chemical (99.6 %) and other productions were reported to have decreased (86.4 %).

### ***Electricity, gas and water generation***

In the reporting period, electricity generation by 2007 had increased by 1.8 %, thermal power generation had decreased by 4 %.

### ***Agriculture***

The index of the agricultural production in the year 2008 totaled 105.5%. Last year, the regional budget earmarked to the agricultural producers 402.6 million rubles (121.6 % as compared to the level of the same period of 2007). Of which: subsidies for livestock production – 304.8 million rubles (124.9 %), for growing vegetables in sheltered ground – 5.4 million rubles (158.8 %), for livestock breeding – 3.4 million rubles (increased by 2.5 times), for combined fodder – 3.2 million rubles (in 2007, no subsidies earmarked), for support to fur animal breeding – 3 million rubles (103.4 %), for seed delivery – 2 million rubles (166.7 %). The federal budget earmarked to the agricultural producers 81.4 million rubles: 11.4 million rubles for livestock breeding, 14.6 million rubles for the northern deer husbandry, for combined fodder – 29.5 million rubles, for seed delivery – 4.4 million rubles, to support chemicalization – 1.6 million rubles. As a result, while continuing the activities aimed at modernization of the production spaces and implementing the state-of-the-art technologies of fodder conservation, it turned out not only possible to counteract the acute price disparity, but grow the production volumes of the basic types of agricultural produce and livestock products.

In total, over the year, 29.5 thousand tons of milk is reported to have produced, or 105.3 % to the respective period of the year 2007, meat of various sorts – 10.3 thousand tons (113.3%), eggs – 168.2 million items (102.5%). At the same time, the production of vegetables turned to be lower than the previous year's production – 68.2 %. The pig stock went down by 0.8 %, poultry – by 0.1 %, cattle - by 1.2 %, the cow population increased in the same period by 1.5 %. The milk yield per one cow totaled 7270 kg (106.1 % to the same period of the last year), chicken laying capacity– 289 eggs (102.5 %).

### ***Fishery***

The index of fishery production over the year 2008 totaled 103.6 % as compared to the same period of 2007. Fish catch, including that of sea animals and sea products, increased by 2.3 % and totaled 563.1 thousand tons. Production of food fish products (without canned food), produced on board the fishery ships in 2008 increased by 0.7 %, as compared to the previous year. The production of frozen fish products increased by 1.8, by 24.3% – products of deep processing (frozen fish fillet), by 2.3 % - herring of various types of processing. In the year 2008, the coastal fishing companies of the Murmansk region used the cod fishing quotas by 99 % and by 94.4 % – haddock fishing quotas.

The enterprises involved in aquaculture on the territory of the Murmansk region are continuing their activities successfully. In the year 2008, 2 enterprises borrowed investment loans to the amount of 50 million rubles to construct and upgrade the complexes for industrial fish breeding and acquisition of fish breeding stock. The volume of commercial breeding of the Atlantic Salmon and Rainbow Salmon increased by 53.4 %, as compared to 2007. In the year 2008, selling the grown salmon and trout began through the trading chains. In order to enhance the rate of development of aquaculture, it is necessary to set up a precise regulatory and legal basis at the federal level, in the area of regulating commercial fishery, production turnover, fishery area allocation, subsidies for purchasing fish fodder products, and also for acquisition, through the federal leasing system, of the fish seeding stock.

### ***Construction***

Over January-December of 2008, volume of work to the amount of 15.73 billion rubles was produced or 111.1 % to the level of the year 2007. Over the year 2008, 7.5 thousand square meters of the entire area of housing were commissioned (59.2 % to the level of the previous year), in the cities and towns of Murmansk, Apatity, Monchegorsk, Polarnye Zori, in Tersky, Lovozersky and Kola districts. Through using their own and loaned funds, the population constructed 5.4 thousand square meters of the entire area of residential houses. Over 2008, among the objects of industrial designation, premises for poultry farming were commissioned for 70 thousand bird places (Kovdorsky district), greenhouses - 0.15 hectares (Kola district) and fish processing facilities with the capacity of 1.3 thousand tons. The total area of the newly constructed and modernized trade facilities in the area totaled 51.55 thousand square meters (a double growth to the level of 2007). The public catering entities chain, in the reporting period, expanded through new construction and reconstruction for 592 visitor places. In 2008, the following was constructed and reconstructed: 21.9 kilometer of automotive roads, 4 bridges and 1 maintenance station for cars. In the communication sector, a number of new automatic telephone stations were constructed and commissioned: urban – for 21.24 thousand phone numbers, in the rural area – for 0.35 thousand phone numbers.

### ***Consumer market***

In the year 2008, the consumer market of the region was characterized by a higher consumption demand of the population, high rates of growth and market saturation. The regional population bought commodities to the amount of 84.3 billion rubles, which is 1.3 as high as the level of the previous year. The growth of the retail turnover, in the amount of commodities, totaled 12.6 % (in 2007– 13 %). The growth rates of industrial commodity sales (115.2 %) were considerably higher than the food products sales volumes (110.3 %), where the share of food products in the microstructure of the retail sales turnover was reported to have been higher than the level of the previous year by 0.7 % and totaled 53.6 %. As of early 2009, the commodity stock in organizations and entities involved in retailing secured 28 trading days. The public catering turnover amounted to about 4.7 billions rubles, which is 1.3 times as high as the level of the previous year, physical volumes – by 8 %.

Over the year's time, the population was rendered services to the amount of about 35.2 billions rubles. The physical volume index of the services rendered totaled 100.2 % as to 101.8 % in 2007. The physical volumes for individual types of services were considerably higher than the level of the previous year, and of which the communication services - by 27.9 %, juridical services, tourism, veterinary, photo services – 1.2 times as high, the services in house and other structure repair, bathhouse and shower services – on average by 14 %. However, the physical volumes of dry cleaning and laundry services failed to reach the levels of the year 2007 (50.6 and 29.4 %, respectively), sanatoria and sanitary facilities (69.8 %), clothing manufacturing and fix services (72.4 %), culture entities (78.1 %), communal services (90.7 %).

### ***External economic activities***

***International trade turnover*** of the Murmansk region, over 9 months of 2008, totaled 2649.7 million USA Dollars (116.8 % as compared to the same period of 2007).

The Murmansk region is an export oriented region, the foreign trade balance is positive. The export delivery value is 5.1 times as high as that of import.

The main trade partners are the 'far abroad' countries. The share of the CIS countries in the trade turnover – 3.2 %.

The main trade partners are – the Netherlands (share in WTO – 21.5 %), China (19.8 %), Norway (11.7 %), Finland (7.7 %), Spain (4.7 %), Belgium (4.2 %), Sweden (3.5 %), Lithuania (2.9 %), Germany (2.8 %) and Belorussia (2.8 %).

**Export of commodities** totaled 2214.9 million USA Dollars, which is by 9.1 % higher than the same period of 2007, including the ‘far abroad’ countries – 2163.3 million USA Dollars; (108.3 %), to the CIS countries – 51.6 million USA Dollars (157.8 %).

The main commodities of export are non-ferrous metals and products thereof. The share of non-ferrous products totaled 53 % of the total volume of export, having decreased as compared to January – September of 2007, by 10 %. At the same time, the non ferrous metal supplies increased by 14.9 %.

At the same time, amid the falling prices for nickel on the global markets (contract prices for nickel fell by 40 %), the value converted metal export volume decreased by 8.3 %.

A considerable place in the commodity structure of export is occupied by apatite concentrate, fish and marine crustaceans. In physical terms, the export supplies of fish products increased by 17.4 %. In value terms, fish export and crustaceans increased by 11.6 %; the proportion of in the total export volume, as compared to the same period of 2007, did not change and totaled 21.5 %. The supplies of apatite concentrate decreased by 30.7 %. At the same time, resultant from the growth of contract prices by 2.9 times, in value terms the export of apatite concentrate increased twice as much. (The share in export increased by 6.2 %, to 13.7 %.) In physical terms, export supplies of iron ore concentrate increased (117.8 %). The supplies of sawn timber products (72.4 %), iron and steel waste and scrap were reported to have decreased (85.8 %). Due to the higher export duties, the export of round wood timber materials is reported to have considerably decreased (35.2 %).

**Import**, over 9 months of 2008, as compared to the same period of the year 2007, increased by 1.8 times and totaled 434.8 million USA Dollars, including from the ‘far abroad’ countries – 400.4 million USA Dollars (183.3 %), from the CIS countries – 34.4 million USA Dollars. (172.9 %). The biggest share in the import structure is occupied by machinery, equipment and means of transport. The value volume of the import of means of transport increased 2.3 times as high; the proportion, as compared to January – September of 2007, increased by 8.7 %, to 45.7 %. The import of machines and equipment increased by 39.9 %, and the share in the total volume of import decreased by 6.5 % and totaled 21.4 %. The share of chemical production increased by 2.1 times and totaled 15.6 %. As compared to the same period of the previous year, the import of chemical products was reported to have increased by 3.8 times. This growth is connected with supplies of foreign raw materials for the aluminum production (alumina), in 2007, all the raw materials were supplied by the Russian producers.

**Export and import of international services** totaled respectively 132.4 % and 131 % to January – September of 2007.

### ***International economic relations***

In 2008, as in the previous period, resources were drawn form various international entities, to improve the conditions of social and economic development of the region. At present, on the territory of the Murmansk region, 84 international projects are being implemented in the area of economic cooperation, support to small and middle size businesses, creating favorable climate for businesses, environmental protection, implementation of power saving technologies and transport.

The effort aimed at elaboration of optimal models of collaboration and interaction with the border areas of the neighboring countries was under way. The Conception of Optimal Border Cooperation of the Murmansk region was approved. Development and approval procedures as part of the

instrument under the European Neighborhood and Partnership “IESP-PS Kolarctic 2007–2013” Program were completed; the Program becoming one of the key financial instruments of the border area cooperation with eight regions from four countries involved therein.

### *Transport*

In 2008, the transport enterprises and entities transported 37.3 million tons of cargoes (93.1 % to 2007). The reduction was caused mainly by a 9.2 % reduction of the cargo transportation volumes provided by the rail road transportation, (including sea – by 3.4 %, through the growing share of time charter freight operations).

The volume of cargo transportation operations provided by the automotive transportation had increased by 1.5 % by 2007, air transport – by 18.8 %.

## APPENDIX I

**LAW OF THE  
MURMANSK REGION  
ON STATE MANAGEMENT  
OF OCCUPATIONAL SAFETY AND HEALTH ON THE TERRITORY OF THE  
MURMANSK REGION**

Passed by the Murmansk Regional Duma  
April, 2, 2008

### **Article 1. Main concepts applied in this Law**

1. This Law applies the following basic concepts:

Occupational Safety and Health – system of preservation of employees’ life and health during their occupational activities, which integrates legal, social and economic, organizational and technical, sanitary and hygienic, medical and preventive, rehabilitation and other activities and actions;

The state management of occupational safety and health is meant to be activities of the subjects of occupational safety and health state management in the area of occupational safety and health regulated by legal and other regulatory and legal acts;

The subjects of occupational safety and health state management in the Murmansk region are the Federal Bodies of executive power, the Government of the Murmansk region, executive body of state power of the Murmansk region, involved in the area of occupational safety and health, as part of their authority.

2. This Law applies other concepts in the meaning defined by the Labour Code of the Russian Federation, applicable Federal Laws and other regulatory legal acts of the Russian Federation, which contain labour right regulating norms.

### **Article 2. The legal basis of state management of occupational safety and health on the territory of Murmansk region**

The legal basis of occupational safety and health state management on the territory of the Murmansk region is the Constitution of the Russian Federation, Labour Code of the Russian Federation, Federal Laws and other regulatory and legal acts of the Russian Federation, Charter of the Murmansk region, this Law and other laws of the Murmansk region, regulatory and legal acts of the Governor of the Murmansk region, Government of the Murmansk region.



### **Article 3. State management of occupational safety and health on the territory of the Murmansk region**

State management of occupational safety and health on the territory of Murmansk region is exercised, pursuant to the applicable Laws, by the Federal Bodies of executive power, Government of the Murmansk region and body of state power of the Murmansk region, involved in the area of occupational safety and health, as part of their authority, in interaction with the bodies of local government of municipalities of the Murmansk region, trade unions associations, in the person of the Murmansk Regional Council of Trade Unions, associations of employers, in the person of the Union of Industrialists and Entrepreneurs (Employers) of the Murmansk region.

### **Article 4. Goal and basic directions of the state management of occupational safety and health on the territory of the Murmansk region**

1. The goal of the state management of occupational safety and health on the territory of the Murmansk region is ensuring safe and healthy working conditions at work places, lower occupational traumatism and diseases in the Murmansk region.

2. The basic directions of the state management of occupational safety and health on the territory of Murmansk region are:

1. Implementation of the state policies pursued in the area of occupational safety and health;
2. Support in securing the priority of preservation of employees' life and health during their occupational activities and exercising their right to labour, which is compliant with the occupational safety and health requirements;
3. Development and implementation of a complex of managerial and other actions and events aimed at improvement of occupational safety and health, prevention of occupational traumatism and diseases in the Murmansk region;
4. Interdepartmental coordination in the area of the state management of occupational safety and health on the territory of Murmansk region;
5. Interaction and coordination of activities of the subjects of the occupational safety and health state management in the Murmansk region and bodies of local government, employers, associations of employers, trade unions, associations of trade unions and other representative bodies authorized by employees;
6. Realization of state expertise of working conditions;
7. Support to public control over the rights and vested interests of employees in the area of occupational safety and health;
8. Dissemination of the state-of-the-art expertise in improvement of occupational safety and health;
9. Enhancement of interregional and international cooperation in the area of occupational safety and health;
10. Other functions in the area of state management of occupational safety and health.

### **Article 5. Authority of the Murmansk Regional Duma in the area of state management of occupational safety and health**

The authority of the Murmansk Regional Duma in the area of the state management of occupational safety and health comprises passing laws of the Murmansk region, control over their compliance and enactment, other authority specified by the Laws of the Russian Federation and Laws of the Murmansk region.

## **Article 6. Authority of the Government Murmansk region in implementation of state management of occupational safety and health**

The Government of the Murmansk region:

1. In implementing the state management of occupational safety and health on the territory of the Murmansk region, pursues unified and consistent state policy in the area of occupational safety and health;
2. Assigns an executive body of state power of the Murmansk region, executing functions in the area of occupational safety and health, and its authority;
3. Passes, as part of its authority, regulatory and legal acts in the area of occupational safety and health;
4. Develops and approves short and mid term regional target programs aimed at improvement of occupational safety and health and working conditions in the Murmansk region;
5. Determines expenditures aimed at improvement of occupational safety and health and working conditions in the Murmansk region through funds of the regional budget;
6. Establishes a regional interdepartmental commission for occupational safety and health to coordinate interdepartmental activities in the area of occupational safety and health state management;
7. Ensures development of interregional and international cooperation in the area of occupational safety and health;
8. Exercises other authority in the area of occupational safety and health, specified by the Laws of the Russian Federation and Laws of the Murmansk region.

## **Article 7. Authority of the executive body of state power of the Murmansk region in exercising state management of occupational safety and health**

The executive body of state power of the Murmansk region, exercising functions in the area of occupational safety and health:

- 1) Ensures unified and consistent state policies in the area of occupational safety and health;
- 2) Realizes state expertise of working conditions based on the verdicts ruled by the Court bodies, appeals of the bodies of executive power, employers, associations of employers, employees, trade unions, associations of trade unions, other representative bodies authorized by employees, bodies of the Social Insurance Fund of the Russian Federation with the aim to assess:
  - Quality of working places attestation,
  - Correct amount of compensations provided for employees for hard work, work in hazardous and (or) dangerous working conditions,
  - Compliance of projects of construction, reconstruction, technical upgrade of production sites, manufacture and application of new machinery with the state requirements of occupational safety and health,
  - Actual working conditions of employees, including in the period, which precedes occurrence of an occupational accident;

- 3) Is engaged in inspection procedures, performed by the bodies of state oversight and control over compliance with the labour regulating laws;
- 4) Supports public control over compliance with the rights and vested interests of employees in the area of occupational safety and health;
- 5) Is engaged in investigation of severe accidents, accidents inducing fatality, group occupational accidents in the order specified by the Laws of the Russian Federation; analyses causes of occupational traumatism;
- 6) Coordinates OSH training and OSH knowledge test procedures;
- 7) Interacts with the bodies of local government of the Murmansk region on the issues of improvement of occupational safety and health and working conditions on the territory of municipalities;
- 8) Provides information support on the status of occupational safety and health on the territory of Murmansk region;
- 9) Exercises other authority in the area of occupational safety and health, specified by the Government of the Murmansk region.

**Article 8. The bodies of local government of municipalities of the Murmansk region**

The bodies of local government of municipalities of the Murmansk region are involved in implementation of the basic directions of the state policy pursued in the area of occupational safety and health, as part of their authority specified by the applicable Laws.

**Article 9. Associations of trade unions and Associations of Employers of the Murmansk region**

The Murmansk Regional Council of Trade Unions and Union of Industrialists and Entrepreneurs (employers) of the Murmansk region are involved in implementation of the basic directions of the state policy pursued in the area of occupational safety and health, as part of their authority and on the basis of principles of social partnership.

**Article 10. The Regional Tripartite Commission for Regulation of Social and Labour Relations**

The Regional Tripartite Commission for Regulation of Social and Labour Relations coordinates the positions of the Government of the Murmansk region, associations of trade unions and associations of Employers of the Murmansk region in part of implementation of the state policy in the area of occupational safety and health.

**Article 11. Coming into Effect of this Law**

This Law comes into effect on the date of its official publication.

Governor of the Murmansk region

EVDOKIMOV Y.A.

April, 6, 2008

No. 954-01-ZMO

The city of Murmansk

## APPENDIX II

### List of basic monographs, course and study books, as well as journal articles published in the region covering the issues of occupational safety and health and relevant issues

#### *Monographs:*

1. Melnikov N.N. et al. Innovation Projects for Sites of Nuclear and Radiation Materials Underground Long Term Storage and Disposal in Geological Formations of the North of Russia. Apatity: KNC RAN, 2005. – 111 P. (In Russian)
2. Karnachov I.P. et al. Occupational Safety and Health in Production Area (the case study of the mining and energy sector complex enterprises located in the Kola Polar Areas). Apatity: KNC RAN, 2006. – 169 P. (In Russian)
3. Pedchik A.Y. et al. Occupational Safety and Health in Construction of Underground Facilities. Apatity: KNC RAN, 2007. – 247 P. (In Russian)
4. Syurin S.A. et al. State-of-the-art Methods of Rehabilitation Treatment of Patients Suffering Chronic Bronchitis on the basis of Application of Natural and Preformed Physical Factors. Edit. By Prof. Chachshin V.S. Saint Petersburg: Inkom. 2007. – 165 P. (In Russian)

#### *Brochures and course books:*

1. The Basics of Vital Activities in the Areas of the Far North: Methodological Textbook for Teachers of Comprehensive Schools in the Areas of Indigenous Peoples of Siberia, the Far North and Far East. / Chashchin V.P., Gun G.E., Dudarov A.A., Chashchin M.V., Boldysheva E.G., Ivanov N.N., Mizernyuk V.N., Nikanov A.N., Kuzmin A.V., Apitsyn A. M. , Lebedev G.B., Knyazev A. Y., Chernev A.V., Rozhkov V.V. // Appr. By Joint Decision of the Scientists Councils of the FGUN “SZNC of Hygiene and Public Health” of the Ministry for Public Health and Social Development of the RF and GOU DNO “Leningrad Regional Institute for Education Development” dated from 01.12.2005 No. 12/14 and 19.12.2005, No. 31. – SPb, 2005. – 28 P. (In Russian)
2. Koval L.V., Ivanenko S.P. The Collection of Reference Documents on Occupational Safety and Health. (Committee for Labour and Social Development of the Murmansk region. The Unit of Occupational Safety and Working Conditions Expertise). Murmansk: JSC Ltd. «Murmansky Pechatny Dvor». 2006. – 66 P. (In Russian)
3. Koval L.V., Balmochnyh A.V. Information Newsletter on Occupational Safety and Health. The Issues of Occupational Accidents Investigation. (Committee for Labour and Social Development of the Murmansk region. The Unit of Occupational Safety and Working Conditions Expertise). Murmansk. 2007. – 18 P. (In Russian)

#### *Articles in journals and thematic collections:*

##### 2005

Meknikov N.N., Konuhin V.P., Naumov V.A., Amosov P.V., Gusak S.A., Naumov A.V. The Issues of Safety of the Underground Regional Burial Site for Radioactive Waste on Kola Peninsula. – Materials of Reports, at the XI International Environmental Symposium “Ural Atomny, Ural Promyshlenny”, Ekaterinburg, February, 7-11, 2005. – Ekaterinburg, 2005. – P. 288–291. (In Russian)

Skripal B.A. Status of Peripheric Circulation of Workers Engaged in the Conditions of Chilling Microclimate of the Underground Mines of the European North. // Newsletter of the Scientific Council. The Medical and Environmental Problems of Employees. – 2005. – No 1. – P. 30 – 34. (In Russian)

Strelkovskaya N.Y. The Environmental and Production Factors and Status of Health of the Population Living Near the Hibinogorsk Mining and Chemical Complex. // Newsletter of the Northern State Medical University. – 2005. – Issue XIV. – No 1. – P. 226 – 228. (In Russian)

Skripal B.A., Nikanov A.N. The Role of Occupational and Production Factors of Risks in Creating Levels of Diseases Developed by Employees of Underground Mines in the Kola Polar Areas. // The Ecology of Man. – 2005. – No 5. – P. 10 – 13. (In Russian)

Skripal B.A. Status of Blood Circulation of Patients Suffering Pneumatic Hammer Disease among Employees of the Mining and Chemical Complex in the Kola North. // Scientific Approaches towards Solution of Regional Hygienic Problems of Preservation of Man's Health: Scientific Works of FNCG named after Erisman F.F., Lipetsk, 2005. – Issue 15. – P. 260 – 264. (In Russian)

Karnachov I.P., Skripal B.A., Rocheva I.I., Nikanov A.N., Kuptsov V.N. Occupational disease and occupational traumatism in production of and processing apatite-nepheline ores. // Scientific Approaches towards Solution of Regional Hygienic Problems of Preservation of Man's Health: Scientific Works of FNCG named after Erisman F.F., Lipetsk, 2005. – Issue 15. – P. 191 – 195. (In Russian)

Nikanov A.N., Chashchin V.P., Talykova L.V. Hygienic Assessment of Working Conditions in Applying the Pyrometallurgical Method of Nickel Production at Non-Ferrous Metallurgy Enterprises of the Kola Polar Areas. // Scientific Approaches towards Solution of Regional Hygienic Problems of Preservation of Man's Health: Scientific Works of FNCG named after Erisman F.F., Lipetsk, 2005. – Issue 15. – P. 226 – 229. (In Russian)

Karnachov I.P., Nikanov A.N., Pal'kin V. M. The Methodological Approaches to Predictive Estimate of Tolerable Risk for the Health of Employees of the Mining Facilities of the Murmansk region. // The Ecology of Man. – 2005. – No. 11. – P. 46 – 52. (In Russian)

Svidovy V.I., Agievich A.A., Nikanov A.N. Hygienic Assessment of Working Conditions of Drivers of Means of Transport in Surface Mines in the Kola Polar Areas. // Newsletter of Saint Petersburg State Medical Academy named after Mechnikov I.I. 2005, No. 3. – P. 191 – 192. (In Russian)

Nikanov A.N., Leshtaeva N.R. Hygienic Characteristic of Technology and Working Conditions in Processing Apatite-Nepheline Ores. // Newsletter of the Northern State Medical University. Issue XV - 2005, No. 2. – P. 177 – 179. (In Russian)

Leshtaeva N.R. Some Indexes of Reproduction Health of Women Engaged in the Concentrating Plants of the JSC "Apatit". // Newsletter of the Northern State Medical University. Issue. XV – 2005, No. 2. – P. 141 – 147. (In Russian)

Skripal B.A. Differential Thermal Diagnostics of Radioculopathy at Lumbosacral Osteochondrosis of Patients Suffering Pneumatic Hammer Disease // Newsletter of Saint Petersburg State Medical Academy named after Mechnikov I.I. 2005, No. 4. – P. 62 – 65. (In Russian)

Bykov V.R., Zotov A.M., Chashchin V.P. Environment and Assessment of Risks for Health of the Population of the Kola Polar Areas. // Newsletter of Saint Petersburg State Medical Academy named after Mechnikov I.I. 2005, No. 4. – P.172 – 173. (In Russian)

Popova O.N., Gudkov A.B., Nikanov A.N., Skripal B.A. Some Indexes of Respiratory Functions of Young People - Natives of the Far North. // Newsletter of Pomorsky University. - 2005, No. 2 (8). – P. 95–99. (In Russian)

## 2006

Malygina S.N., Ryzhenko A.A., Isakyeovich N.V., Yakovlev S.Y. The regulatory and methodological base of assessing risk of fire- and explosion- hazardous objects // The applied problems of macro systems management: vol. 28 (Papers of ISA RAN) – Moscow, KomKniga, 2006. – P. 293–298. (In Russian)

Sagidova M.L., Ryzhenko A.A., Isakyeovich N.V., Yakovlev S.Y. The information and methodological basics of developing plans for prevention and elimination of oil and oil products spills // The applied problems of macro systems management: vol. 28 (Papers of ISA RAN). Moscow, KomKniga, 2006. – P. 328–334. (In Russian)

Chashchin V.P., Nikanov A.N., Anfalova G.L. Analysis of efficiency of personal equipment designed to protect respiratory organs against dust at the mica processing enterprises. // The Ecology of Man. – 2006. – No. 4. – P. 55 – 58. (In Russian)

Karnachov I.P., Nikanov A.N., Natarov O.V. Assessment of occupational safety for employees of the mining and chemical industrial facilities in the Murmansk region. // Occupational Safety and Health. – 2006. – No. 2. – P.63 – 68. (In Russian)

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Nikanov A.N., Anfalova G.L., Tsyryatyeva E.N., Efimova T.I. The hygienic assessment of the dust factor in mica industrial processing. // Newsletter of Saint Petersburg State Medical Academy named after Mechnikov I.I. – 2006. – No.1. –P. 203 – 204. (In Russian)

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Nikanov A.N., Talykova L.V., Rocheva I.I., Efimova T.I. Exposure to occupational factors and prevalence of chronic pathology among employees of the nickel production of the Kola Polar region. // Materials of the II-nd All Russian Congress of Occupational Pathology Doctors. Rostov-on-Don, October, 3–5, 2006 – Rostov-on-Don: ZAO “Poligrafist”, 2006. – P. 198 – 199. (In Russian)

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Karnachov I.P., Nikanov A.N., Pal'kin V.M., Ivanenko S.P., Kolesnikov N.N. Comprehensive analysis of hygienic assessment of working conditions on the basis of materials of working place attestation for employees engaged in industrial enterprises of the mining and industrial complex of the Murmansk region. // Occupational Safety and Health. – 2006. – No. 3. – P. 23 – 26. (In Russian)

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Karnachov I.P., Yakovlev S.Y. Application of the situational approach for predictive estimate of the occupational safety level in the region. // Information technologies in the regional development: Collection of Scientific Works of the IIMM of the Kola Scientific Center of RAN, Issues. VI. – Apatity: KNC RAN, 2006. – P. 56 – 61. (In Russian)

## 2007

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Yakovlev S.Y., Isakievich N.V. Quantitative analysis of the industrial and environmental risk at the level of the object // Simulation and analysis of safety and risk in complex systems: Works of the International Scientific School of MABR – 2007 (Saint Petersburg, September, 4-8, 2007) / SPb: GUAP, 2007. – P.461 -465. (In Russian)

Yakovlev S.Y., Isakievich N.V., Ryzhenko A.A. Assessment of anthropogenic and natural risk of heterogeneous hazardous sites of the Murmansk region // Interdisciplinary Research of the Problems of Safety of Vital Activities of the population in the current conditions: Materials of the XII International Scientific and Practical Conference on Issues of Protection of the Population and Territories against Emergencies. Anthropogenic Catastrophes and Problems of Safety: Materials of the Scientific and Practical Symposium. Moscow. April, 18–20, 2007. / MCS of Russia. – Moscow.: IPP “KUNA”, 2007. – P.86-89. (In Russian)

Skripal B.A., Avetisian K.S., Efimova T.I., Nikanov A.N.. Prevalence of periphery circulation disorders of employees of the enterprises of the Kola Polar Region. // Newsletter of the National Medical and Surgical Center named after Pirogov N.I. – 2007. – No 2(1). – P. 6 – 8. (In Russian)

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