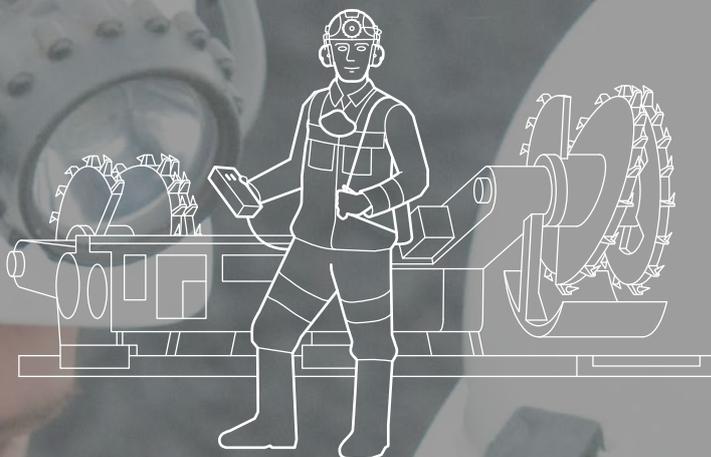


# HEALTH AND SAFETY



One of SUEK's top priorities as an employer is to provide a safe working environment for our people and minimise the risks related to coal production.

#### Priorities:

- Continually improving the mechanisms and methods for ensuring occupational and workplace safety;
- Addressing atmospheric safety issues to prevent accidents and minimise the negative impact of coal dust on employees;
- Ensuring our production sites have the latest equipment and introducing modern safety systems and monitoring instruments;
  - Ensuring our health and safety information system functions at a Group-wide level;
- Improving the skills and capabilities of safety professionals through dedicated training provision, educating staff on safe working practices and improving workplace discipline;
- Developing and implementing measures to reduce the negative impacts of coal production on employee health and wellbeing;
  - Ensuring all employees are supplied with modern, high-quality work clothes and protective equipment, in line with our corporate standards; and
- Implementing special preventive medical programmes.

### Health and safety at work

Across our industrial facilities, the system we have put in place for managing health and safety complies with the most up-to-date international standards and is designed to minimise injuries and accidents at our production sites. Our corporate health and safety standards cover both company staff and contractors providing services at our sites and facilities. Our production facilities undergo regular audits to assess our compliance with the OHSAS 18001 occupational health and safety management standard.

To minimise industrial risks, every year the company reviews and updates a comprehensive range of health and safety measures. In 2015, SUEK allocated \$46m to health and safety programmes, interventions and initiatives.

#### Overview

From 2011 to 2015, the lost time injury frequency rate (LTIFR) across SUEK's production sites went down from 2.02 to 1.23. In 2015, the LTIFR was down 18% on the previous year with total lost time amounting to 8,071 days. Our production sites recorded 62 industrial injuries, compared to 77 in 2014.

FOR MORE INFORMATION  
SEE OPERATING REVIEW ON  
PAGES 53-56.



It is with deep regret that we announce that there were five industrial fatalities at our production sites in 2015. The main causes of these fatalities were organisational failures, violations of health and safety regulations, and a lack of discipline and skill in key health and safety areas. During the year, special commissions carried out in-depth inquiries into the incidents, investigating all causes and circumstances. The findings from these inquiries have since been used to develop measures designed to prevent such incidents from occurring again in the future.

Our efforts to improve health and safety systems and emergency response procedures are coordinated by the Industrial Safety Committee of JSC SUEK's Management Board. In 2015, the Committee reviewed a number of important health and safety issues, and heard reports from regional managers on programmes planned for 2016 to improve health and safety at our open pits. It also reviewed a working group report on the implementation of key measures to improve our Group-wide health and safety system, and looked at proposals for emergency 'self-escape' measures for miners. The concept of self-escape includes the provision of tools and

organisational measures to enable miners to leave hazardous areas in the event of an emergency. The main idea is that miners should be able to follow self-escape procedures on their own, with a view to engaging them in emergency prevention and ensuring they are in a constant state of preparedness.

#### Measures to improve health and safety

Improving the reliability of multifunctional health and safety systems and systems for monitoring underground air and gas conditions

Currently, the Group's production facilities use the following multifunctional health and safety systems:

- A system for tracking the location of our workforce and maintaining communications with them via wi-fi and underground radio;
- Gas level sensors;
- Air condition monitoring systems.

These systems enable us to:

- track the location of our workforce in underground mine shafts;
- equip personnel with the tools and training they need to raise an alarm in the event of an emergency, regardless of where they might be;

### Health and Safety Policy

In 2015, SUEK approved a company-wide corporate Occupational Health and Safety Policy. Within this policy, the SUEK management defined their obligations regarding health and safety and set out the key principles that all SUEK employees must follow in order to eliminate workplace injuries and accidents across the Group.

These core principles include:

#### Safety first and foremost

Before any job is undertaken, the ability of those involved to complete the project safely must be considered and assessed. If the pursuit of industrial/commercial objectives looks likely to compromise safety in any way, these objectives must be reviewed or cancelled.

#### Zero injuries and accidents

All accidents and injuries must be treated as emergencies. They are a clear indication that something is wrong in our approach to managing health and safety.

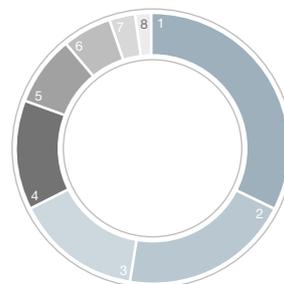
#### Zero tolerance for concealment

Full transparency around health and safety issues must be ensured at all times; any concealment or non-disclosure of information relating to health and safety will be taken extremely seriously.

#### Professionalism and competence

An employee can only be assigned a job if he/she has the right qualifications and skills to complete it.

### Allocation of funding for health and safety in 2015



1. Technical measures 32%
2. Mine rescue teams and other emergency response units 20%
3. Procurement of personal protective equipment 15%
4. Improvements to hygienic and technical conditions in workplaces 14%
5. Organisational measures 8%
6. Health and safety research and design work 6%
7. Procurement of equipment and instrumentation 3%
8. Insurance 2%

- conduct search and rescue operations for people in underground mine areas; the systems we currently employ enable us to accurately track people within 20 metres and also to locate them through up to 20 metres of rock.

We have developed a range of measures designed to improve the reliability of these multifunctional health and safety systems. At the JSC SUEK head office in Moscow, for example, we have a situational control centre designed to monitor the state of the company's industrial health and safety system in real time. At this centre we also analyse system parameters and coordinate efforts with regional branches and industrial facilities during emergencies.

In addition, we have established a centralised health and safety control and analysis centre in Kuzbass. At the centre, our health and safety controllers receive information about atmospheric conditions and gas levels in our mines. This information, displayed on large screens in our regional office, is monitored 24/7 to ensure production teams operating in the Kuzbass region are not adversely affected by atmospheric conditions.

#### Improving gas drainage

Across our mine sites, we remove methane from our mining areas through a system of integrated gas drainage wells. To maximise the efficiency of the gas drainage process, we are constantly introducing new methods, equipment and technology. Furthermore, to ensure we are more energy efficient, we use some of the methane removed from the workings to generate heat and electricity at the mines. This also allows us to reduce our greenhouse gas emissions, thereby minimising our environmental footprint.

FOR MORE INFORMATION ON METHANE UTILISATION SEE PAGES 74-75.



#### Improving mine ventilation

We have recently increased the amount of fresh air supplied to high-capacity longwall sections of our mines from 1,500 m<sup>3</sup> per minute to 2,500 m<sup>3</sup> per minute. In total, between 2007 and 2015 fresh air consumption within our mines increased by a factor of 1.5, from 93,798 m<sup>3</sup> per minute to 140,600 m<sup>3</sup> per minute.

#### Reducing coal dust

SUEK mines have strict requirements for stone-dusting, and a high consumption of inert dust to reduce the risk of coal dust explosions. Actions include:

- Delivering a threefold increase in stone-dusting in our Kuzbass mines in the past five years, from 6,100 to 18,040 tonnes a year;
- Improving the quality of stone-dusting in our mines through the use of mechanical stone-dusting units.

We are also constantly looking to enhance the efficiency of our measures to reduce coal dust emissions; recent achievements in this area include:

- Introducing vacuum collection, transportation and discharge of fine coal dust at the washing plants located in Khakasia and Buryatia;
- Completing a key stage of the Vanino Bulk Terminal modernisation programme for coal dust suppression; the terminal is now equipped with fog generation units and unique foam generators that suppress dust using foam and water – a unique technology that has never been used anywhere else before.

#### Tighter health and safety controls

SUEK Group has introduced a zero-tolerance policy for violations of health and safety regulations. Preventing such violations plays a huge role in reducing the risk of accidents and injuries. To this end, we have developed and introduced specialised software to keep track of all health and safety related incidents. The software prevents shift tasks being issued until all identified health and safety violations have been dealt with. The system has already been deployed at all mining and processing sites across the Group.

#### Personnel training and development

We work hard to ensure all staff have the knowledge, skills and training they need to carry out their roles safely and responsibly. All equipment purchased by the Group comes with a special training video showing how to maintain high levels of health and safety during assembly, operation and maintenance.

In 2015, all of our coal mining facilities in Kuzbass and Buryatia carried out pre-shift employee health and safety awareness assessments. The initiative, which features special quiz terminals, was launched after the implementation of a pilot project at the Komsomolets mine in 2014.

In July, the company held an annual conference in Khakasia on health, safety and the environment led by JSC SUEK's Chief Operations Officer. More than 150 employees took part in the conference, which focused on the company's health and safety performance in 2014 and targets for 2015. It also included a seminar with production site directors and heads of HSE units. During the seminar, participants learned how to use modelling methods to assess health and safety risks.

#### Promoting health and safety

SUEK has developed a series of video manuals on health and safety regulations that must be followed when performing specific jobs. These videos are accessible via information panels in office buildings, briefing rooms and on company buses. All SUEK production sites have health and safety notice boards to help promote and reinforce core safety messages.

SUEK's production sites feature an HSE feedback system called Alarm Sheet, whereby employees can write down any hazards associated with a specific workplace or process. The idea is to engage and include our workforce in the development of a health and safety culture. In the reporting year, the company organised a special health and safety contest under the slogan 'Reward Vigilance'. All winners were awarded prizes from SUEK.

Identifying employees prone to excessive risk-taking

We constantly test candidates applying for job vacancies and engineering positions to determine whether or not these potential hires are prone to excessive risk-taking. Our tests include factors such as a candidate's risk appetite, and their ability to learn and follow rules. These tests form an integral part of our recruitment and selection process, informing our hiring decisions at all levels.

Provision of modern work clothes and personal protective equipment

We have deployed an automated system to keep track of personal protective equipment (PPE) across the Group. This system is designed to improve the quality of PPE and ensure all workers are supplied and equipped in accordance with regulatory requirements, corporate standards and working conditions. It also enables us to improve the planning and procurement of PPE over the long term.

**Healthcare**

In order to minimise the risk of occupational diseases, SUEK makes every effort to reduce the adverse impact of industrial environments on employee health and wellbeing.

As part of our commitment to improve working conditions, we have developed standard requirements for special clothes, footwear and other PPE utilised by SUEK employees. In 2015, we increased the reliability of key PPE items, such as footwear, hard hats, respirators and goggles, and introduced work clothes inspections at the start of production shifts to ensure Group-wide compliance with our corporate standards.

Since 2010, we have been working to identify occupational diseases in their early stages, reduce lost time due to medical conditions, and organise regular medical check-ups and healthy lifestyle promotion. All our employees are offered comprehensive healthcare, which includes education about various medical conditions, consultations, diagnostic services and treatment.

The Group-wide Health Programme not only improves the living standards of our employees, but also translates into savings for the company as it reduces lost time due to injuries and illness. In the period 2010-2015, across the company time off for sick leave reduced by 50%, averaging seven days per employee per year.

Appreciating the importance of employee health and wellbeing, we have set up a special medical unit at our office in Moscow, staffed by highly skilled practising doctors. The main functions of the unit are to:

- Introduce our Policy on Health Safety and Healthcare at Hazardous Industrial Facilities;
- Provide medical support for all health and safety programmes across our industrial processes;
- Provide effective management of the SUEK healthcare service;
- Organise, plan and monitor the implementation of mandatory medical campaigns; and
- Develop corporate regulations and manual and methodological recommendations in accordance with the company's health, safety and healthcare policy.

We always try to make sure all our employees understand the importance of looking after their own health and adhering to health and safety regulations at work. Our goal is to develop effective health and safety measures that take into account both industrial and individual risk factors.

As part of our efforts to ensure adherence to labour laws and protect the health of our employees, in 2015 we carried out a special assessment of working conditions at our production sites in Khakasia, Zabaikalye, Buryatia, Krasnoyarsk, Khabarovsk and Primorye. The assessment included identifying workplace risk factors and updating workplace classifications in accordance with hazard levels. We used the findings of the assessment to offer fringe benefits and extra compensation to employees working in hazardous and adverse environments, and adjusted payroll tax accordingly. In addition, in order to consolidate, systematise and analyse these findings, we began to deploy a specialised computer programme called Labour-Expert Management. Similar assessment is being carried out in Kuzbass.

**Health School programme**

In 2015, as part of our commitment to health and safety, we implemented the following initiatives:

- Developing manuals on healthy eating for company employees and employees of catering services, including a seven-day menu of low-calorie dishes. Two promotional booklets, 'Basic Principles of Healthy Eating' and 'Diets Best Suited for Various Medical Conditions', were produced, as well as billboards promoting healthy dietary habits;
- Implementing a programme called 'Water' to ensure our miners drink sufficient amounts of mineral water before, during and after their shifts. Water is critical for miners, who tend to lose salts and microelements at an accelerated rate; it also helps to prevent gastrointestinal conditions;
- Helping to prevent viral infections by administering flu, pneumococcus and tick-borne encephalitis vaccinations;
- Organising sports and entertainment events in all regions as part of our anti-smoking programme. We also produced an educational video demonstrating the damaging effects of nicotine on the body.