

## Occupational Injuries and Sick Leave in the Swedish Mining and Mineral Industry 2011

### Contents

1. Main Statistics of the Mining and Mineral Industry .....	2
2. Scope of the Statistics.....	2
Occupational Injuries .....	2
Sick Leave .....	2
3. Definitions.....	3
4. Sick Leave 2009-2011 .....	4
5. Occupational Injuries in the Mining and Mineral Industry 2002-2012.....	4
Number of Working Hours .....	4
Number of Employees.....	4
Lost Day Injury Frequency Rate .....	5
Days of Sick Leave per Injury .....	6
6. Occupational Injuries - Severe Accidents.....	7
Severe Accidents .....	7
Fatalities.....	8
7. Zero Injury Cases and Near Misses .....	8
8. Occupational Diseases.....	10
9. Commuting Accidents .....	11
10. Accidents of Contractors Working for Mining Companies .....	11

## 1. Main Statistics of the Mining and Mineral Industry

<b>All employees (excl. contractors)</b>	<b>2011</b>	<b>2010</b>
Total Number of Occupational Injuries	82	119
Lost Day Injury Frequency Rate, LDIFR (number of occupational injuries per one million working hours)	7.7	11.9
Number of Days of Sick Leave per Injury	19	14
Number of Fatalities	0	0
Occupational Diseases	35	26
Commuting Accidents	28	13
Number of Days of Sick Leave per Injury (commuting accidents)	5	16
<b>All employees incl. contractors</b>		
Number of Occupational Injuries	137	174
Lost Day Injury Frequency Rate, LDIFR	9.8	15.1
<b>Contractors</b>		
Total Number of Occupational Injuries	65	58
Lost Day Injury Frequency Rate, LDIFR	16.6	34.5
Number of Fatalities	1	2
<b>Sick Leave</b>		
Total Sick Leave (percentage of regular number of working hours)	3.0	3.1
Short term sick leave ( $\leq$ 14 days)	1.9	1.8
Long term sick leave ( $\geq$ 14 days)	1.1	1.4

## 2. Scope of the Statistics

### Occupational Injuries

The following mining companies reported statistics on occupational injuries to SveMin: Boliden Mineral AB, LKAB, Zinkgruvan Mining AB, Björkdalsgruvan AB, Dragon Mining (Sweden) AB, Lovisagruvan AB, Cementsa AB, Nordkalk AB and SMA Mineral AB.

The statistics on occupational injuries includes all employees on all levels (blue-collar and white-collar staff) of the mining and mineral companies listed above.

The number of occupational injuries and lost day injury frequency rate (LDIFR) for contractors are based on figures from the mining companies, as are the estimated working hours.

### Sick Leave

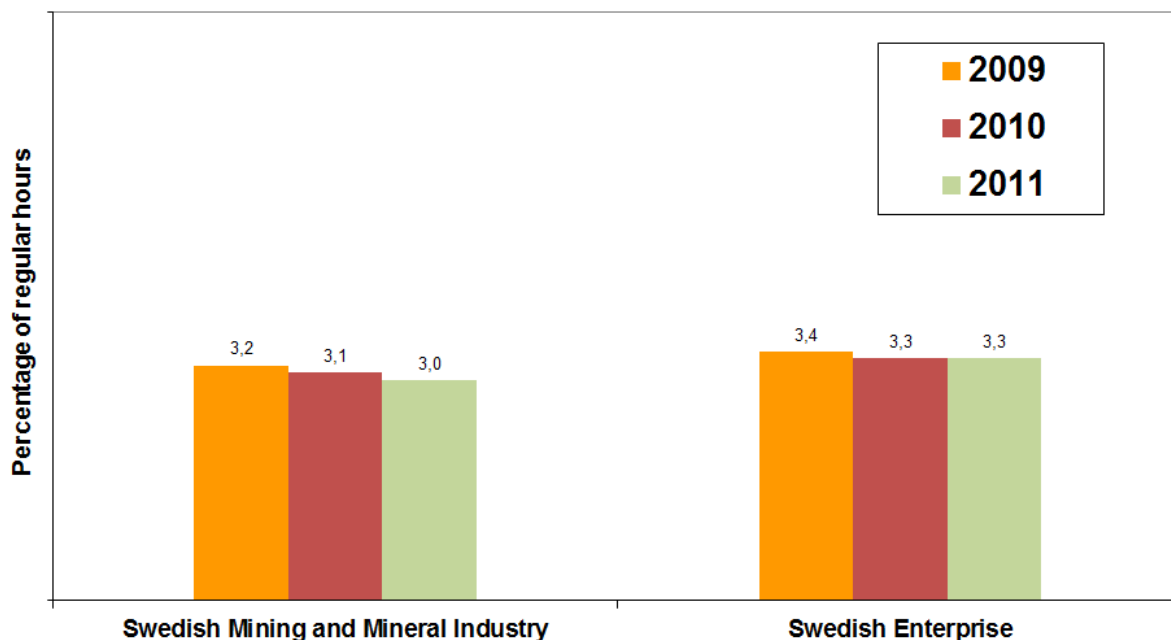
The statistics on sick leave include all employees. Contractors are not included.

### 3. Definitions

Lost Day Case	A sudden unforeseen incident leading to personal injury resulting in at least one day of sick leave.
Lost Day Injury Frequency Rate, LDIFR	Number of Lost Day Injuries per one million working hours.
Occupational Injury per 1, 000 employees	A frequency measure used in the official Swedish statistics by Statistics Sweden and the Working Environment Authority. (It may, however, be rather difficult to obtain information on the number of full-time employees.)
Severe Accident	Accident resulting in a fatality, disability or at least 30 days sick leave.
Occupational Diseases	Number of occupational diseases reported to the Social Insurance Agency.
Commuting Accident	Traffic accident on way to and/or from work.
Zero Injury Case	Accident at work resulting in an injury, but <u>not</u> in absence from work.
Near Misses	Accidents not resulting in any injury, but which could have.
Total Sick Leave	Includes all sick leave periods as a percentage (%) of the regular working hours.
Regular Working Hours	Regular working hours consist of working hours according to the contract of employment (hours worked + sick leave + leave of absence) <i>and</i> vacation. Overtime is not included in the regular working hours. This definition is also used in the Time Allocation Survey of the Confederation of Swedish Enterprise.

#### 4. Sick Leave 2009-2011

##### Total Sick Leave 2009-2011 (all employees)



#### 5. Occupational Injuries in the Mining and Mineral Industry 2002-2011

##### Number of Working Hours

The working hours reported include the working hours of supervisors and blue-collar and white-collar staff. The working hours of contractors are not included in the following tables.

##### Number of Employees

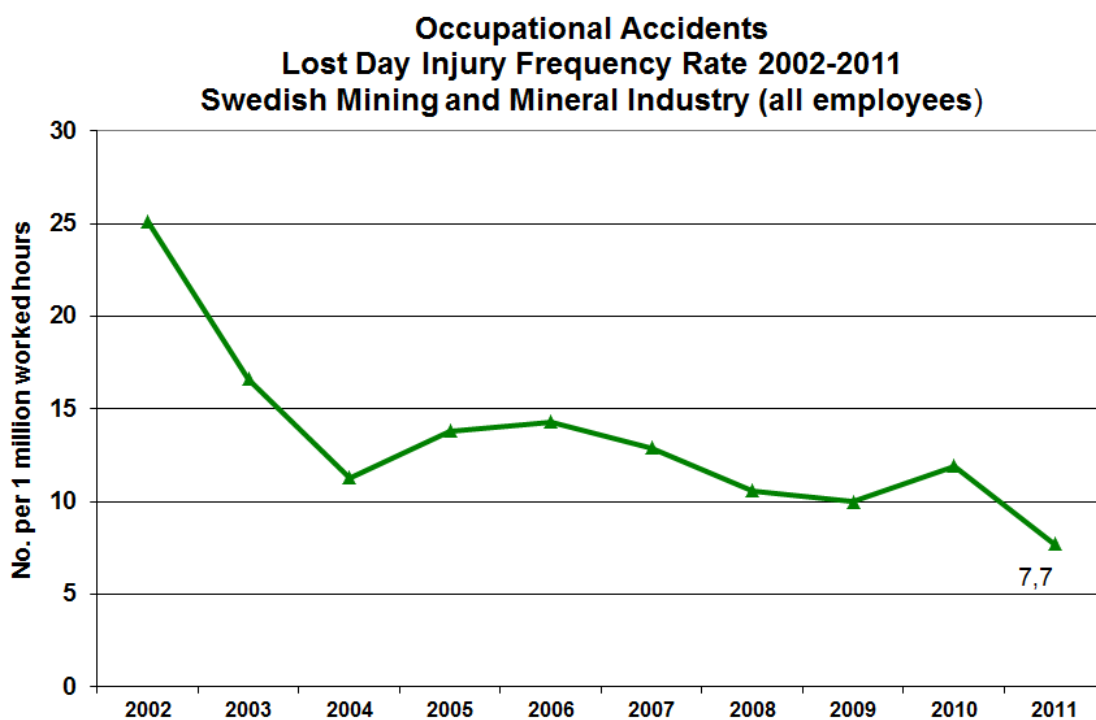
The number of employees has been calculated to represent the number of full-time, whole-year employees.

The figures in the tables do not include contractors. For contractors see chapter 10.

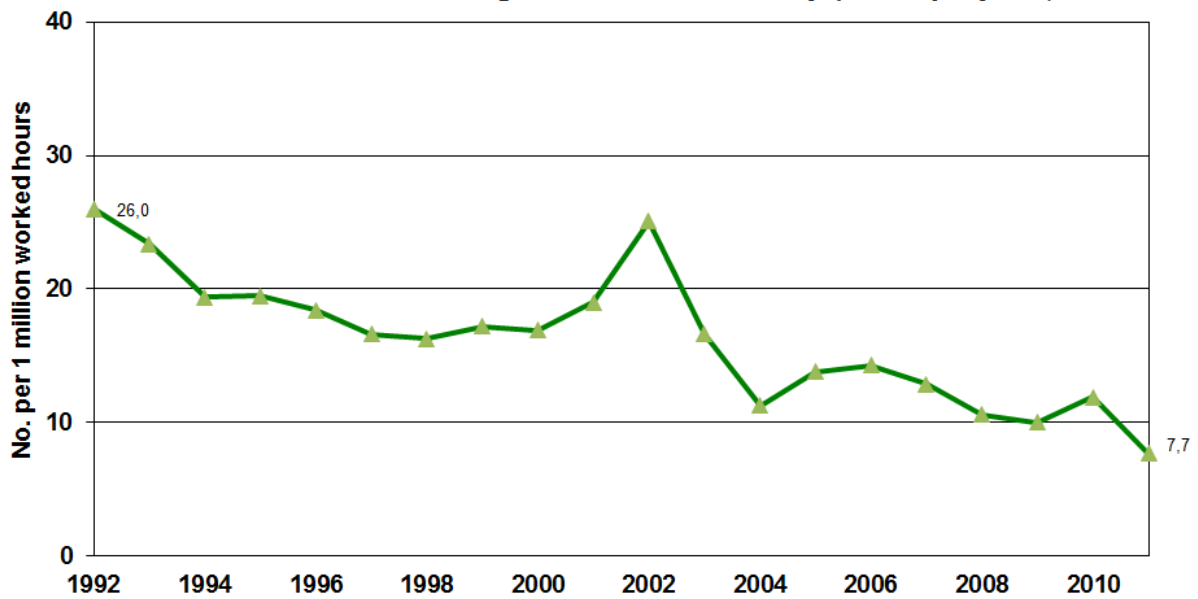
**Total 2002-2011.** Employees, working hours, lost day injuries, frequency, days of sick leave.

Year	Number of employees	Working hours	Number of lost day injuries	Lost day injury frequency rate	Lost day injuries per 1,000 employees	Number of days of sick leave	Days of sick leave per injury
2002	4 980	7 521 996	162	21.5	33	4 289	26.5
2003	4 753	7 598 857	126	16.6	27	2 859	22.7
2004	4 933	7 888 132	89	11.3	18	1 629	18.3
2005	5 156	8 183 606	113	13,8	21	1 577	14,0
2006	5 482	8 836 215	126	14.3	23	2 359	18.9
2007	5 771	9 085 587	117	12.9	20	2 025	17.3
2008	5 351	9 402 873	100	10.6	19	1 854	18.5
2009	6 264	8 974 503	90	10.0	14	1 483	16.7
2010	6 260	10 017 155	119	11.9	19	1 644	13.8
2011	6 216	10 633 032	82	7.7	13	1 560	19.0

## Lost Day Injury Frequency Rate

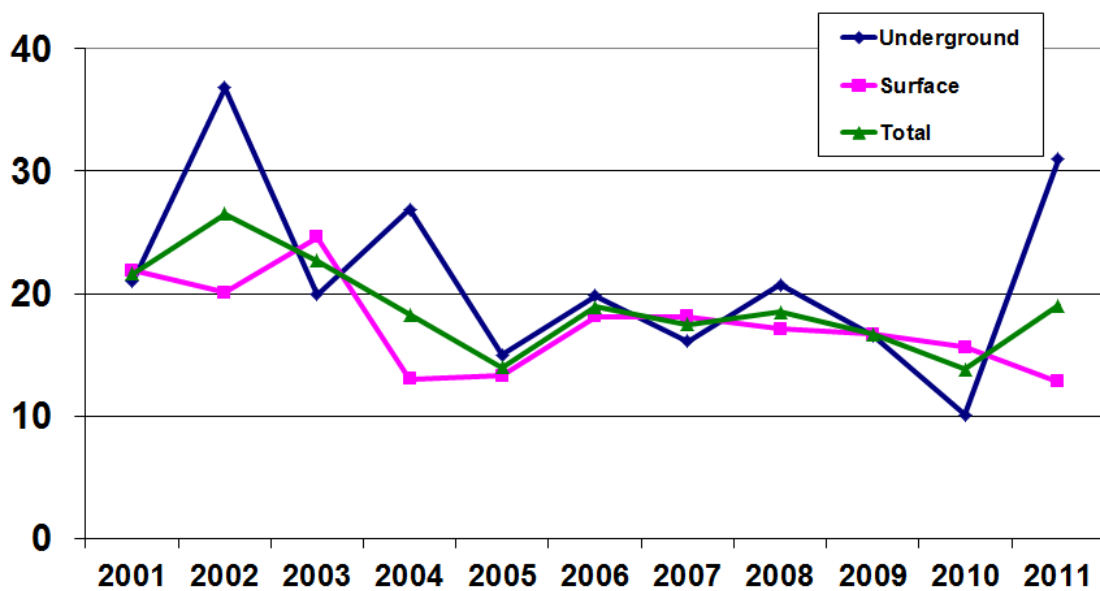


**Occupational Accidents  
Lost Day Injury Frequency Rate 1992-2011  
Swedish Mining and Mineral Industry (all employees)**



**Days of Sick Leave per Injury**

**Days of Sick Leave per Injury 2002-2011  
(all employees)**



## 6. Occupational Injuries - Severe Accidents

Severe accident = accident resulting in a fatality, disability or at least 30 days sick leave.

### Severe Accidents

Severe accidents compared to the total number of accidents  
2002-2011

	Total Lost day cases	Severe accidents	Per cent	Underground Lost day cases	Surface Lost day cases
2002	162	36	22.2	20	16
2003	126	28	22.2	9	19
2004	89	17	19.1	10	7
2005	113	13	11,5	8	5
2006	126	18	14.3	10	8
2007	117	15	12.8	5	10
2008	100	20	20.0	8	12
2009	90	14	15.6	7	7
2010	119	15	12.6	4	11
2011	82	11	13.4	5	6

### Severe Accidents 2002 - 2011



### Type of activities during which severe occupational injuries occur, 2007-2011.

Type of activity/injury	No. of Accidents				
	2011	2010	2009	2008	2007
Scaling	0	0	0	0	1
Falling rock	1	1	0	2	1
Walking, jumping, sliding/slipping	5	3	1	7	8
Service and maintenance	2	6	6	10	3
Traffic	2	0	1	1	1
Blasting gas	0	0	0	0	0
Squeeze injuries	0	5	4	0	0
Miscellaneous	1	0	1	0	1
<b>Total</b>	<b>11</b>	<b>15</b>	<b>13</b>	<b>20</b>	<b>15</b>

### Fatalities

The Swedish mining industry has had few occupational accidents with fatal outcome during the last 15 years.

The figures below do not include contractors. For contractor, see chapter 10.

### Number of fatalities 2002-2011

The fatality frequency rate is the number of fatalities per one million working hours.

Year	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002
No.	0	0	1	0	1	1	0	0	0	1

## 7. Zero Injury Cases and Near Misses

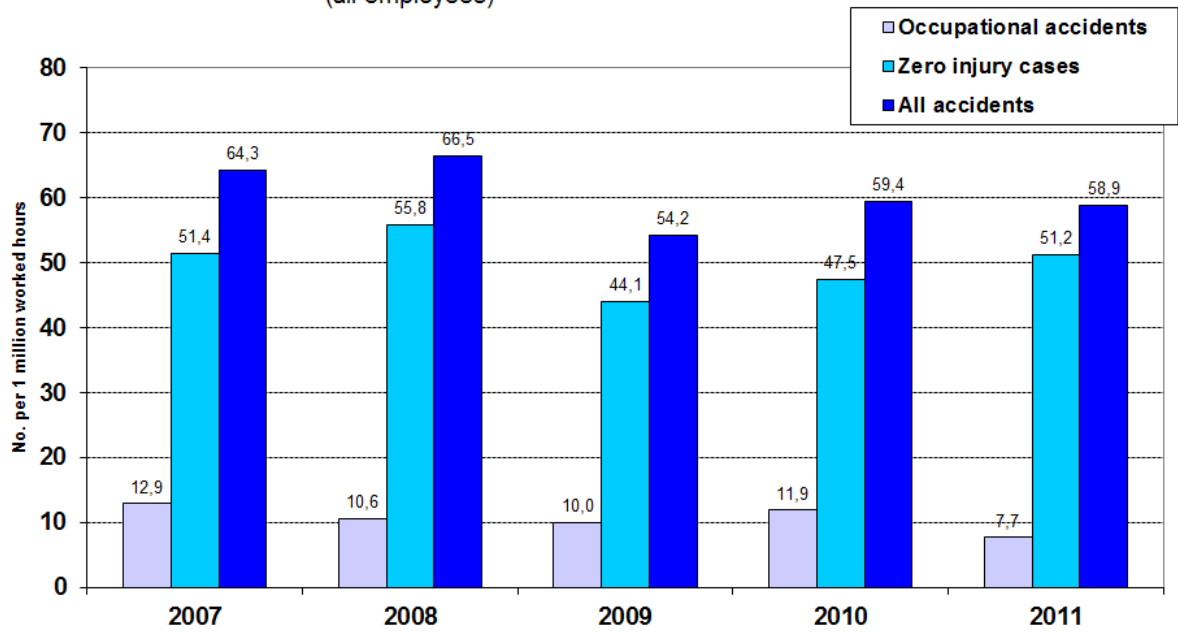
The development of working environment issues can be best followed, if all accidents and near misses are recorded and investigated. By gaining knowledge from zero injury cases and near misses, it becomes possible to engage in preventive actions, which results in an improved working environment.

These are the statistics for 2011:

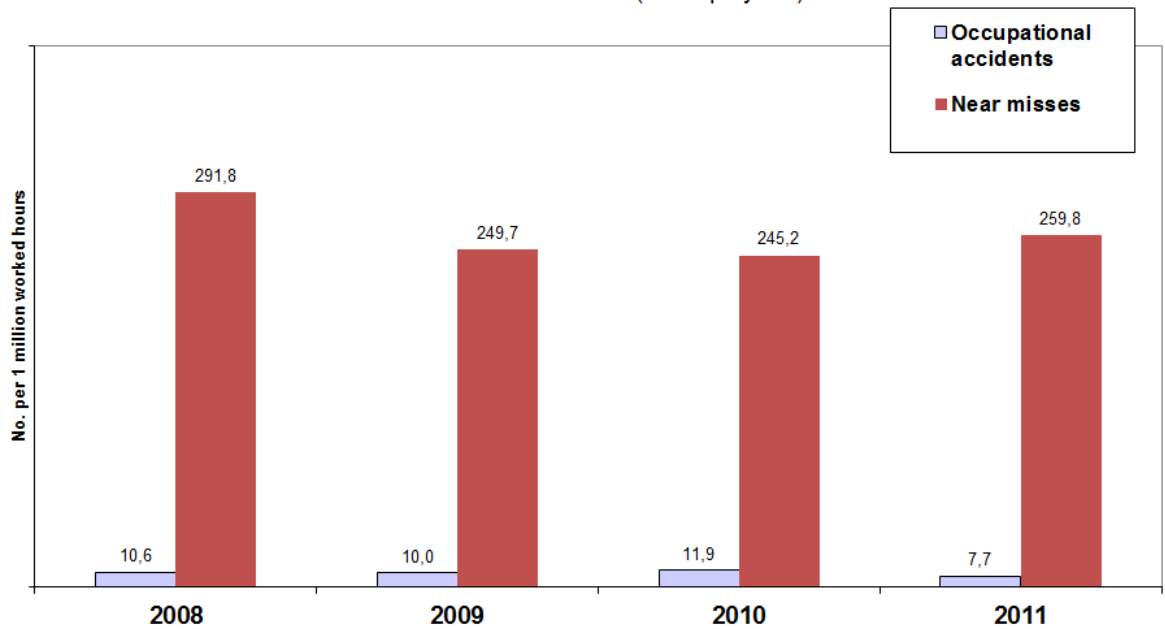
	Number	Frequency
Occupational accidents (lost day cases)	82	7.7
Zero injury cases	544	51.2
All accidents	626	58.9
Near misses	2 762	259.8



### Comparison Frequency Rates 2007-2011 (all employees)



### Comparison Frequency Rate OCCUPATIONAL ACCIDENTS AND NEAR MISSES 2008-2011 (all employees)



## 8. Occupational Diseases

The table below shows the number of occupational diseases reported to the Social Insurance Agency.

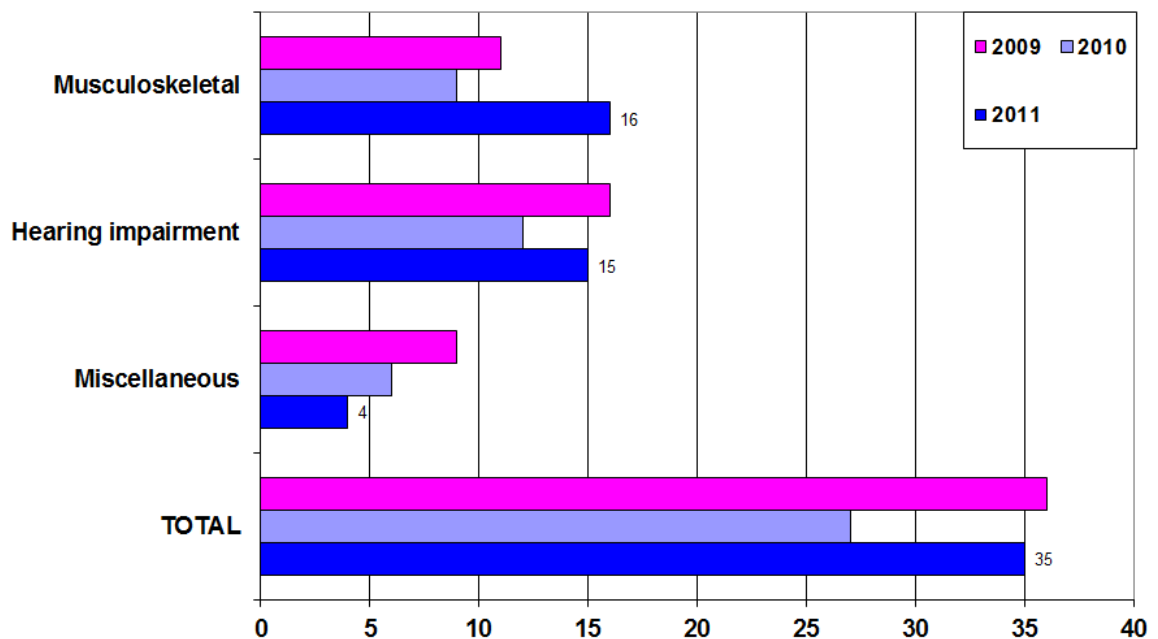
	2011	2010	2009	2008
Musculoskeletal disorder	16	9	11	5
Hearing impairment	15	12	16	7
Miscellaneous	4	6	9	5
<b>TOTAL</b>	<b>35</b>	<b>27</b>	<b>36</b>	<b>17</b>

Frequency rate for 2011: 5.6 occupational diseases per 1,000 employees.

Frequency rate for 2010: 4.3 occupational diseases per 1,000 employees.

Frequency rate for 2009: 5.7 occupational diseases per 1,000 employees.

### OCUPATIONAL DISEASES 2009-2011



## 9. Commuting Accidents

Commuting accidents are traffic accidents occurring on the way to and from work. As a consequence, these accidents do not directly involve work and work assignments.

Nevertheless, commuting accidents are included in the social insurance system and entitle to financial compensation, etc.

2011	28 commuting accidents	5 days of absence from work on average
2010	13 commuting accidents	16 days of absence from work on average
2009	25 commuting accidents	4 days of absence from work on average

## 10. Accidents of Contractors Working for Mining Companies

Accidents and near misses are not always reported by contractors, or in varying degrees, for the mining and mineral companies. However, the cooperation between companies and contractors regarding this matter improves every year. The increase of number of accidents and near misses as shown in the table below does not necessary mean that the actual number has increased; it is likely that the contractors are reporting more.

Number of	2011	2010	2009	2008
Lost day cases	65	58	46	57
Fatalities	1	2	0	1