

SAFETY IN MINES RESEARCH ADVISORY COMMITTEE

SIMRAC

Final Project Report

Title: QUANTIFY THE NATURE AND MAGNITUDE OF THE CONTRIBUTION OF HUMAN ENGINEERING FACTORS TO THE RISK OF INJURY OR FATALITY CAUSED BY UNDERGROUND MACHINERY OR TRANSPORT AND DELINEATE THE ESSENTIAL CAUSES

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**AN ASSESSMENT OF THE MOST SIGNIFICANT CAUSES OF
TRANSPORTATION AND MACHINERY ACCIDENTS ON COLLIERIES**

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1 INTRODUCTION

The purpose of this study is to identify those areas, classified according to the SAMRASS data base system under the codes relating to Underground Transport and Machinery type accidents, that give cause to the greatest amount of accidents.

Once the three most significant areas have been identified, they will be investigated in more detail in order to identify the causative factors. The information contained in this report can then be used by the decision makers within SIMRAC to enable scarce resources to be focussed on further research work which addresses the most pressing issues.

In 1994 Phillips and Landman¹ did an assessment of colliery accident statistics and found that three major categories - Transport and Machinery; Strata Control, and Fires and Explosions - account for 74 % of all accidents, 83 % of all fatalities and 71 % of all injuries. It was further found that Transport and Machinery has the highest significance in terms of the number of accidents (51,5 %* of all accidents), the highest significance in terms of the number of injuries (48,6 %* of all accidents) and the second most significant in terms of fatalities (30,4 % of all accidents).

*Includes fall of material on surface and below surface. If these categories are excluded then the percentages would be 39,1 % of total accidents and 26,9 % of fatal accidents.

As Strata Control and Fires and Explosions are well supported for further research effort, increased effort in terms of Transport and Machinery related accidents was identified to require an increased effort (See Appendix 1 for copies of the relevant tables from this report). As the categories relating to Transport and Machinery accidents contain a number of sub-categories, an investigation was required to determine which of these sub-categories had the most significance and, within these sub-categories, which causative factors are the greatest contributors to accidents.

2 METHODOLOGY

In assessing the available data the following methodology was used.

As the purpose was to examine and investigate more closely the aspects of underground transport and machinery accidents in coal mines, only the data pertaining to these classifications in the SAMRASS data base was used.

The categories chosen are not precisely the same as those used by Phillips and Landman as their's included falls of material on surface and falls of material underground. As these two categories are not included in the SAMRASS Transportation and Mining or Machinery classifications², they are not included in the data used for this study.

The categories used were: (obtained from the Reportable Accidents code book SAMRASS);

Code	Category
02	MACHINERY
02A	Conveyor belts
02B	Drives Belts and Chains
02C	Portable Power tools
02D	Other machinery
03	TRANSPORT AND MINING
0301	Locomotives
0302	Endless rope haulage
0303	Winches
0304	Hand Trammed*
0305	Tractor/Trailer
0306	Coal Mining Machines
0307	Mechanical Loaders
0308	Transporters
0309	Motor Vehicles
0310	Lifting Machines
0311	Mobile Drilling Machines
0312	Other Transport and Mining Equipment.

*It should be noted that this classification also makes provision for a person being injured if he should fall or stumble. It is assumed that this injury, when reported, is associated with any activity involving a hand propelled vehicle and that injuries resulting purely from falling or stumbling would not have been classified here but rather under the General category O4C.

For the initial analysis no sub-categories were used. Only where the most significant categories were identified were they analyzed further.

The data used in this study was obtained from a download of SAMRASS data which is in Miningtek's possession. This database only contained the years from 1988 to 1992. The data for the years 1993 and 1994 was kindly provided by Mr A Hunt of the office of the DMEA in Johannesburg.

To overcome the complication of the differing regional codes, the majority of which changed on January 1992, the data was combined as follows.

Data from the Dundee inspectorate (pre Dec 91) was combined with data from the Natal Region (after Jan 92) to form one subset.

Data from the Ermelo, Heidelberg, and Witbank inspectorates (all pre Dec 91) were combined with the data from the Eastern Transvaal region (after Jan 92) to form another subset.

The final subset consisted of the PWV Region and the Northern Tvl Region after January 1992. By using the subsets in this manner, it is assumed that not only will all the areas be adequately covered but that a sensible delineation between the areas has been achieved for the purpose of this study.

The data used was split into three classifications. Fatal accidents, Injuries and Total accidents of the latter being the sum of the previous two classifications.

In order to assess the areas with the most significance, those categories with the most accidents and with the most fatal accidents were identified. These categories were then sub-divided into sub categories. An assessment of the significance of these sub categories was then made.

These sub categories were further assessed using the allocated days lost in the SAMRASS data base as an indication of the severity of the accident. Although 'allocated days' is not representative of how many actual days were lost through the accident, it is however a good standard for comparing the severity of different accidents, especially for the purposes of this study.

In this analysis, sub categories that constituted the most significant cause of accidents were then further investigated to determine more detailed reasons for an accident. **No effort has been made to investigate information beyond the scope of information as contained in the SAMRASS data base.**

3 ASPECTS OF PREVIOUS OR RELATED WORK

In order to obtain focus in the work, as well as to learn from the experience of previous work done into the investigation of accidents, literature pertaining to accident investigations was consulted. The literature was restricted to publications done latterly with regard to accidents in South African mines. Publications of overseas authors were not reviewed.

In the report on the project to 'Establish the primary causes of accidents on mines other than gold, coal and platinum'³ use of the Allocated Days Lost was made to evaluate the relative significance of the accident categories. It was found that the reason 'Failure to comply with recognized standards or procedures' was given as the cause of 30,4 % of the casualty accidents. Use of unsuitable/defective equipment/facilities was given as the largest cause (21,1 %) of non-casualty accidents, and failure to comply with recognized good practice/standards and procedures as the second largest cause (18,8). Following a number of case studies, the authors came to the following reasons for non-compliance with recognized standards. These reasons being:

- The persons did not know
- The person forgot what he was taught
- He ignored what he had been taught.

The authors came to the conclusion that a better informed and trained worker would be more likely to appreciate the hazards of the job than one not so prepared. Further efforts need to be directed at understanding more about worker behaviour, while at the same time improved methods of education and training to create safety awareness need to be developed.

In assessing the accidents in the gold and platinum industries, Ashworth and Peake⁴ found that the 'failure to comply with good practice/standards and procedures' is a dominant cause for accidents in the case of functions not directly associated with mining as well as for activities involving trackbound vehicles and for ore or materials transportation.

This report highlights the restriction in the level of detail that can be obtained directly from the SAMRASS system because of the structured nature of the way that the information is entered into the data base.

During a study conducted on behalf of the CSIR⁵ it was found that, due to the way that the SAMRASS information was entered, it was difficult or impossible to ascertain the causes for accidents in a more comprehensive fashion. By investigating the actual accident reports, significantly more information about the accidents became available. However, even this information was not deemed sufficient to enable causative factors and the role they played to be identified. Other processes would therefore also have to be pursued. In the investigations, which used a different base to this study in terms of period, classifications of accidents and area, it was found that the most significant accidents were;

Conveyor belts	15,7 %
Tractor/Trailers	14,5 %
Load Haul Dumpers	10,3 %
Trucks	9,5 %
Shuttlecars	9,1 %
Continuous miners	5,4 %.

This indicated that the transportation of materials and coal constitutes the most significant cause of accidents.

An interesting aspect in this study was the identification of a large amount of contractor accidents. The unfamiliarity and lack of mining experience of the contractors involved were identified as a possible cause for these accidents.

Appendix 3 gives a summary of the main causes of accidents identified in this study that pertains to the categories that have been found to be the most significant.

4 TRENDS IN THE OCCURRENCE OF ACCIDENTS

Philips⁶ has identified that, although the year by year totals fluctuate, the number of reportable accidents were substantially reduced in the period 1984 - 1993 and stood at half their 1984 values. In Appendix 1 the trends as identified by him are indicated in Figure 2.

In Figure 1 (Accident occurrences for 1988 - 1994), the chosen categories are presented. From this graph it is evident that the identified downward trend has continued to 1994. When considering the graph in Figure 2, which presents fatal accident trends, it is evident that there has been an upward movement in fatalities in the transport and machinery category although the number of total accidents has declined.

When considering the trends for the various categories as presented in Figures 3 and 4, the following becomes evident. Even though the number of accidents shows a downward trend, the trend for transporters however, has not moved downwards commensurately. This indicates that this category is becoming more serious as a fraction of the total accidents. In terms of fatalities, this trend is more evident which exacerbates the situation as the accidents are of a more serious nature.

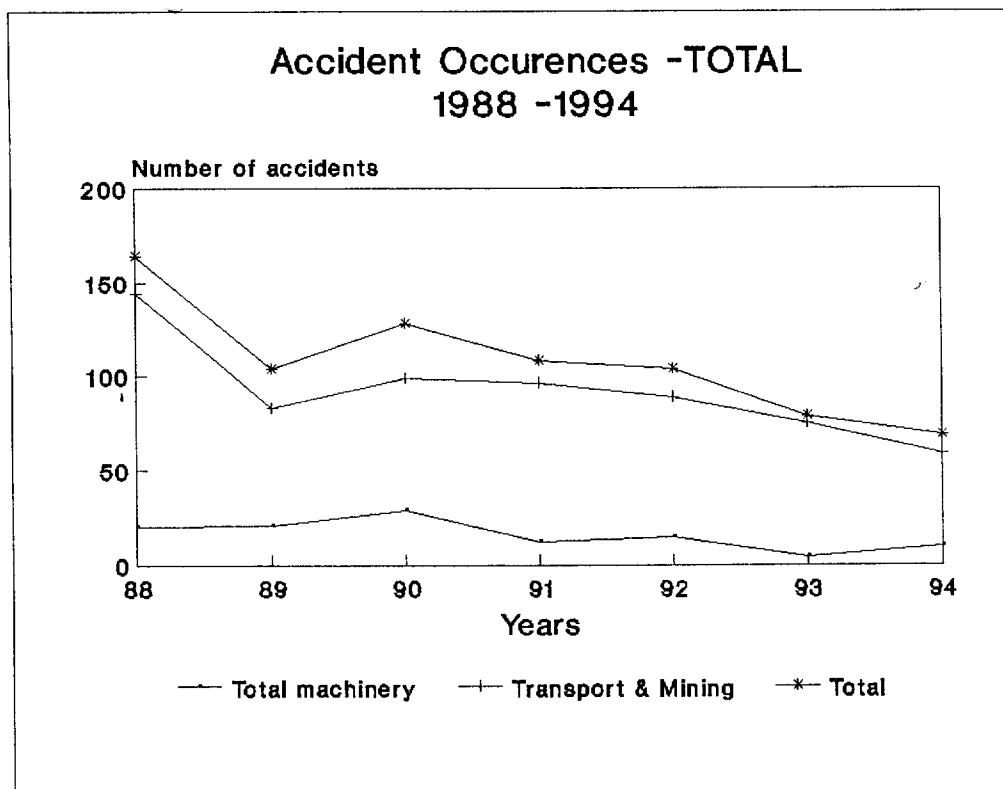


Figure 1 Accident Occurrences - TOTAL 1988 - 1994

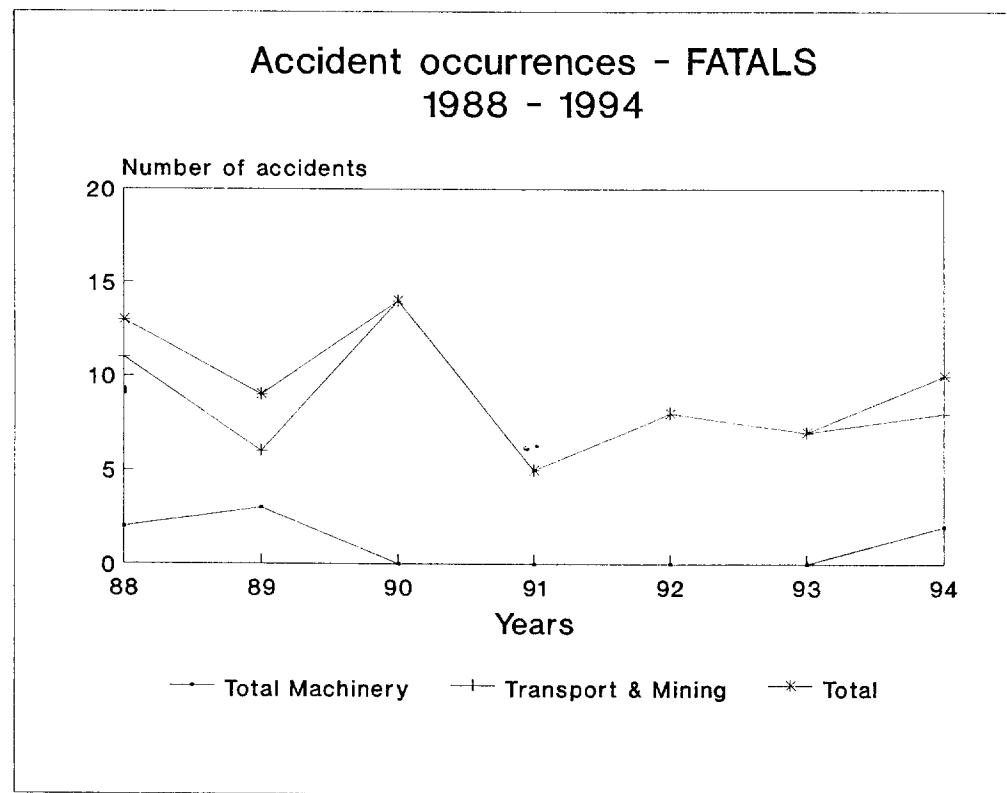


Figure 2 Accident Occurrences - FATALS 1988 - 1994

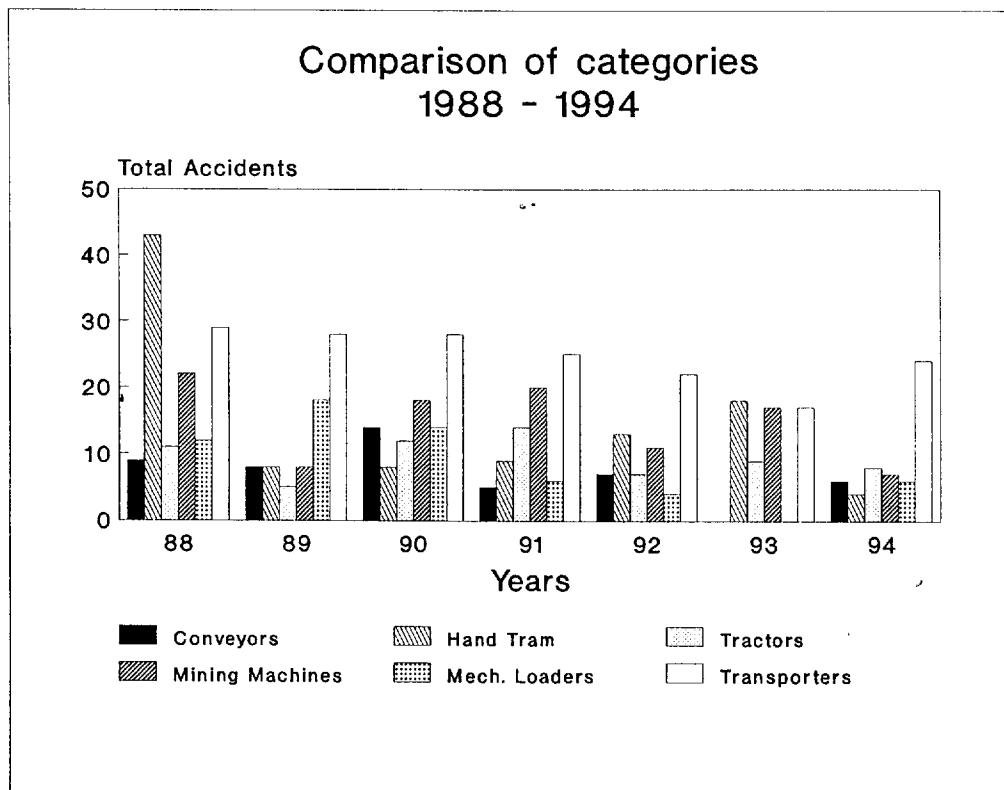


Figure 3 Comparison of categories 1988 - 1994 TOTAL ACCIDENTS

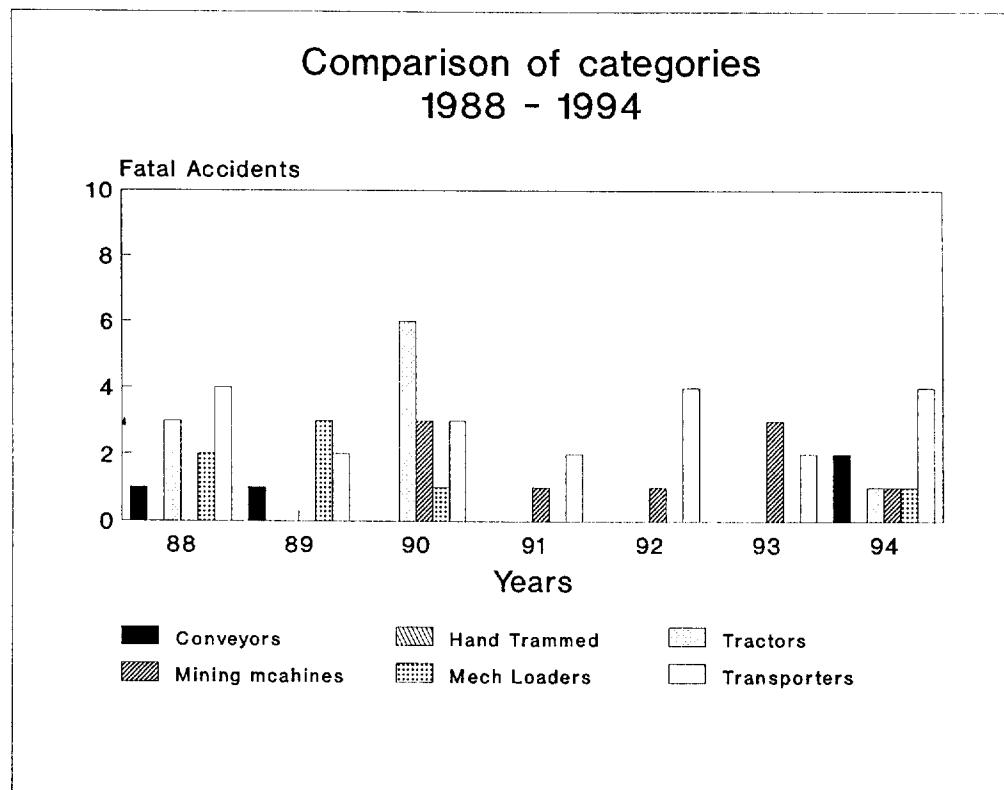


Figure 4 Comparison of categories 1988 - 1994 FATAL ACCIDENTS

5 CLASSIFICATION OF THE SIGNIFICANT CATEGORIES

The results of the accidents from the SAMRASS data base for the years 1988 to 1994 are presented in Table 1. This table presents the accidents in the various categories arranged in decreasing order in terms of **total accidents**, which includes both injuries and fatal accidents.

From Tables 1 & 2 below it is evident that, in terms of total accidents, the four most significant areas are Transporters, Hand Trammed, Coal Mining Machines and Tractors. However, if the number of fatalities is considered, then it becomes evident that the four most significant categories are Transporters, Tractors, Coal Mining Machines and Mechanical Loaders. Hand Trammed, with the second highest number of accidents, has become completely insignificant.

From the graph, Figure 5, the relative importance of the various accident categories can be seen.

Table 1 Categories Ranked in Decreasing Order of Total Accidents

CODE	CATEGORY	FATAL	INJURY	TOTAL
0308	TRANSPORTER	21	152	173
0304	HAND TRAMMED	0	103	103
0306	COAL MINING MACHINES	9	94	103
0305	TRACTOR	10	56	66
0307	MECHANICAL LOADERS	7	53	60
02A	CONVEYOR BELTS	4	45	49
0311	MOBILE DRILLS	2	47	49
02D	OTHER MACHINERY	3	28	31
0309	MOTOR VEHICLE	1	30	31
02C	PORTABLE POWERTOOLS	0	25	25
0302	ENDLESS ROPE HAULAGE	2	19	21
0303	WINCHES	1	19	20
0310	LIFTING MACHINES	1	9	10
0301	LOCOMOTIVE	4	4	8
02B	DRIVES, BELTS & CHAINS	0	6	6
0312	OTHER T & M	1	0	1
TOTAL NUMBER OF ACCIDENTS		66	690	756

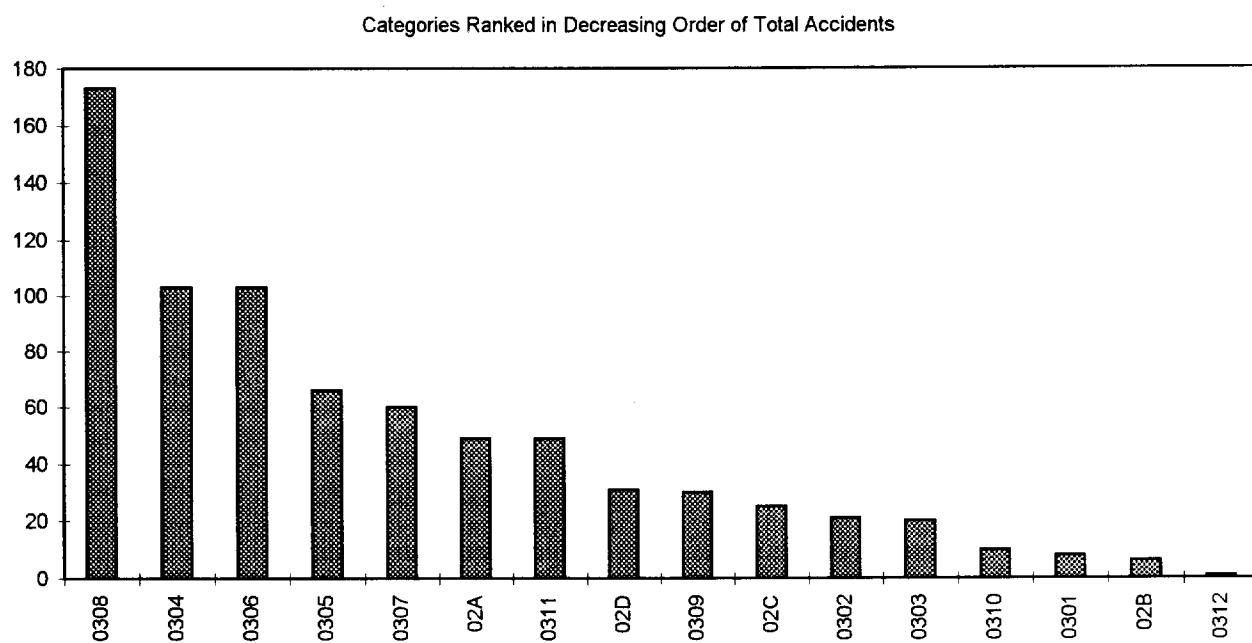


Figure 5 Comparative Relation of Accidents in the Categories Arranged in Decreasing Order of Total Accidents

In Table 2 the categories are ranked in decreasing order of fatal accidents.

Table 2 Categories Ranked in Decreasing Order of Fatal Accidents

CODE	CATEGORY	FATAL	INJURY	TOTAL
0308	TRANSPORTERS	21	152	173
0305	TRACTORS	10	56	66
0306	COAL MINING MACHINES	9	94	103
0307	MECHANICAL LOADERS	7	53	60
02A	CONVEYOR BELTS	4	45	49
0301	LOCOMOTIVE	4	4	8
02D	OTHER MACHINERY	3	28	31
0311	MOBILE DRILLS	2	47	49
0302	ENDLESS ROPE HAULAGE	2	19	21
0309	MOTOR VEHICLES	1	30	31
0310	LIFTING MACHINES	1	9	10
0312	OTHER T & M	1	0	1
0303	WINCHES	1	19	20
02B	DRIVES, BELTS & CHAINS	0	6	6
02C	PORTABLE POWERTOOLS	0	25	25
0304	HAND TRAMMED	0	103	103
TOTAL NUMBER OF ACCIDENTS		66	690	756

Considering the previous rankings, the question of determining those areas that need focused attention becomes not only one of which data category has the greatest number of accidents but possibly, of more importance, the category which has accidents with the greatest significance.

To determine this, use is made of the 'Allocated Days Lost' for evaluating each accident. The number of days is based on a method of injuries in a standardized way through the allocation of a number of days lost in a working life with a maximum of 6 000 days. Although these 'Allocated Days Lost' do not represent the actual days lost for the reported accident, it is nevertheless an excellent index to use to determine the severity of an accident. Using the accumulated values of the allocated days lost for each category, cognisance of the number of accidents is taken, but, even more important, the severity of the accidents is now also brought into the calculation.

In Table 3 the categories are ranked in order of decreasing severity of accidents as indicated by the allocated days lost. It should be noted that, in Tables 3 and 4, a number of the more significant categories were divided into sub-categories. This will enable the more specific problems to be identified in the category.

Table 3 Categories Ranked in Decreasing Order of Severity of Accident

CATEGORIES	SEVERITY: ADL/ACCIDENT*
LOCOMOTIVE	3824,5
SHEARER	1933,8
FRONT END LOADER	1425,3
SHUTTLE CAR	1407,8
CONTINUOUS MINER	1104,5
TRANSPORTERS	1091,9
LIFTING MACHINES	1080,2
LOAD HAUL DUMPERS	987,6
MECHANICAL LOADERS	963,9
TRACTOR - TRAILERS	900,5
COAL MINING MACHINES	814,4
OTHER LOADERS	755,9
GATHERING ARM LOADERS	681,0
OTHER TRANSPORTERS	667,7
CONVEYOR BELTS	627,8
WINCHES	595,6
DRIVES, BELTS & CHAINS	558,3
COAL CUTTERS	472,2
MOBILE DRILLS	387,5
ENDLESS ROPE HAULAGE	366,9
PORTABLE POWERTOOLS	148,2
HAND TRAMMED	123,9

*ADL is the average allocated days lost per incidence of accidents

From the above table it is evident that the categories with the most severe accidents are not the categories with the largest number of accidents. As examples of this, the Locomotive category has the most severe accidents but has a very low number of accidents. On the other hand, the Hand Trammed category has a high number of accidents but is very low in severity. Looking at the severity alone would thus not indicate the focus area.

With regard to the Transporter category, the Shuttle Car sub-category exhibits a significantly higher severity. Similarly the sub-categories of Continuous Miners and Shearers exhibit a higher severity than the Coal Mining Machine category that they belong to.

Table 4 Categories (C) and Sub-Categories (SC) Sorted According to Total Severity Indicated by Sum of the Allocated Days Lost per Category

CATEGORY / SUB-CATEGORY	SUM OF ALLOCATED DAYS LOST
TRANSPORTERS C	188 904
SHUTTLE CARS SC	111 214
COAL MINING MACHINES C	83 879
TRACTOR TRAILERS C	59 431
MECHANICAL LOADERS C	57 832
LOAD HAUL DUMPERS SC	46 975
FRONT END LOADER SC	31 356
CONTINUOUS MINER SC	30 926
CONVEYOR BELTS C	30 760
OTHER TRANSPORTERS C	30 715
LOCOMOTIVES C	30 596
COAL CUTTERS SC	29 748
SHEARER SC	23 205
GATHERING ARM LOADER SC	20 429
MOBILE DRILLS SC	18 986
HAND TRAMMED C	12 752
WINCHES C	11 912
LIFTING MACHINES C	10 802
ENDLESS ROPE HAULAGE C	7 704
OTHER LOADERS C	6 047
PORTABLE POWERTOOLS SC	3 705
DRIVES, BELTS & CHAINS SC	3 350

In Table 4 the sum of the Allocated Lost Days is given per category. As this figure can be considered to be a combination of the severity and the number of accidents, it can be considered to be a better index for determining focus.

From Table 4 it can be seen that, if the sum of the Allocated Day Lost is used as an indication of problem areas, the four most important categories are;

- Transporters
- Coal Mining Machines
- Tractors and Trailers
- Mechanical Loaders.

The sub-category of Shuttle Cars, part of the Transporter category, is however the highest of all the sub-categories and is the second highest when considering categories and sub-categories combined.

In terms of sub-categories the four most significant are:

- Shuttle Cars
- Load Haul Dumpers
- Front End Loaders
- Continuous Miners.

The first two sub categories, Shuttle Cars and LHDs, form part of the Transporter category. In considering the ranking it should be noted that the Tractor/Trailer sub-category has been combined to form one category. This means that the significance of the high value for this category has not been diluted by the inclusion of sub-categories with lower values as is the case in the other categories. Taking this into consideration, Tractor/Trailers can then be used as a sub-category for purposes of focus. This leads to the identification of the following sub-categories as being the four most significant.

- Shuttle Cars
- Tractor Trailers
- Load Haul Dumpers
- Front End Loaders.

In terms of the severity of accidents these sub-categories also lie in the higher values meaning that accidents occurring are usually of a serious nature.

Statement: Different sections of the industry classify the same machine either as Load Hall Dumper or Front End Loader. When Load Haul Dumpers and Front End Loaders are merged they move from 6th and 7th place respectively to 4th place in Table 4.B

Table 4.B Categories (C) and Sub-Categories (SC) Sorted According to Total Severity Indicated by Sum of the Allocated Days Lost per Category when Load Haul Dumpers and Front End Loaders are merged

CATEGORY / SUB-CATEGORY		SUM OF ALLOCATED DAYS LOST
TRANSPORTERS	C	188 904
SHUTTLE CARS	SC	111 214
COAL MINING MACHINES	C	83 879
LOAD HAUL DUMPERS & FRONT END LOADERS	C	78 331
TRACTOR TRAILERS	C	59 431
MECHANICAL LOADERS	C	57 832
FRONT END LOADER	SC	31 356
CONTINUOUS MINER	SC	30 926
CONVEYOR BELTS	C	30 760
OTHER TRANSPORTERS	C	30 715
LOCOMOTIVES	C	30 596
COAL CUTTERS	SC	29 748
SHEARER	SC	23 205
GATHERING ARM LOADER	SC	20 429
MOBILE DRILLS	SC	18 986
HAND TRAMMED	C	12 752
WINCHES	C	11 912
LIFTING MACHINES	C	10 802
ENDLESS ROPE HAULAGE	C	7 704
OTHER LOADERS	C	6 047
PORTABLE POWERTOOLS	SC	3 705
DRIVES, BELTS & CHAINS	SC	3 350

6 CLASSIFICATION OF THE MOST SIGNIFICANT CAUSES

In using the SAMRASS data base when assessing the causes of accidents, the process involved must be borne in mind. To enter the data in the database the information is coded according to a predetermined classification. This is done to facilitate transfer of the information on the form MD16 into the data base. (If this was not done the number of variables that could be generated when accessing the system would be impossible to cope with.) When this information is given out by the database, it allocates a cause to the code and some of the alternatives are lost. A case in point is that 'Failure to comply with recognised good practice/ standards/ procedure' would be reported back through SAMRASS as being 'Failure to comply with standards'.

This report cannot make a distinction between these sub-causes as the information was not captured in this way. It therefore uses the causes as they were captured in the database, which in turn is based on a classification on the entry sheet.

The following tables (Tables 5, 6, 7 & 8) present the percentage of causes that have been allocated to the four main categories of accidents identified as being the most significant.

In all four categories the most significant cause is the failure to comply with standards. This concurs with other research work into accidents where a similar tendency was identified. Where Shuttle Cars, Tractors and LHDs are concerned the second most significant cause is a lack of caution/alertness.

In the Front End Loader category, lack of caution and alertness is not a cause at all and the second most important cause is lack of clearance.

**Table 5 Percentage Allocation of Cause of Accidents in the
Shuttle Car Category**

CATEGORY	PERCENTAGE
FAILURE TO COMPLY WITH INSTRUCTIONS	2,3
FAILURE TO COMPLY WITH STANDARDS	61,6
FAILURE TO SUPPLY SAFETY EQUIPMENT	1,1
LACK OF SUITABLE SYSTEMS/FACILITIES	1,1
LACK OF STANDARDS OR PROCEDURES	1,1
LACK OF CAUTION/ALERTNESS	10,5
LACK OF CLEARANCE (OBSTRUCTION)	1,1
LACK OF SUITABLE TRAINING/INSTRUCTION	4,6
INADEQUATE SUPERVISION/DISCIPLINE	4,6
INADEQUATE EXAMINATION/INSPECTION/TEST	4,6
INADEQUATE PREVENTATIVE MAINTENANCE	3,5
USE OF UNSUITABLE FACILITIES	2,3
RENDERING SAFETY DEVICE INEFFECTIVE	1,1

Table 6 Percentage Allocation of Cause of Accidents in the Tractor/Trailer Category

CATEGORY	PERCENTAGE
FAILURE TO COMPLY WITH INSTRUCTIONS	9,8
FAILURE TO COMPLY WITH STANDARDS	52,5
FAILURE TO USE SAFETY OR PROTECTIVE DEVICES	1,6
FAILURE TO SUPPLY SAFETY EQUIPMENT	0,0
FAILURE TO SUPPLY PROPER TOOLS OR EQUIPMENT	0,0
LACK OF SUITABLE SYSTEMS/FACILITIES	1,6
LACK OF STANDARDS OR PROCEDURES	4,9
LACK OF CAUTION/ALERTNESS	16,1
LACK OF CLEARANCE (OBSTRUCTION)	7,1
LACK OF ILLUMINATION/VISIBILITY	0,0
LACK OF SUITABLE TRAINING/INSTRUCTION	0,0
LACK OF SUPERVISION/DISCIPLINE	0,0
INADEQUATE EXAMINATION/INSPECTION/TEST	3,3
INADEQUATE PREVENTATIVE MAINTENANCE	3,3

Table 7 Percentage Allocation of Cause of Accident in the LHD Category

CATEGORY	PERCENTAGE
FAILURE TO COMPLY WITH INSTRUCTIONS	1,8
FAILURE TO COMPLY WITH STANDARDS	48,2
FAILURE TO USE SAFETY OR PROTECTIVE DEVICES	1,8
FAILURE TO SUPPLY SAFETY EQUIPMENT	0,0
FAILURE TO SUPPLY PROPER TOOLS AND EQUIPMENT	0,0
LACK OF SUITABLE SYSTEMS/FACILITIES	3,6
LACK OF STANDARDS OR PROCEDURES	1,8
LACK OF CAUTION/ALERTNESS	16,1
LACK OF CLEARANCE (OBSTRUCTION)	7,1
LACK OF ILLUMINATION/VISIBILITY	5,4
LACK OF SUITABLE TRAINING/INSTRUCTIONS	0,0
INADEQUATE SUPERVISION/DISCIPLINE	1,8
INADEQUATE EXAMINATION/INSPECTION/TEST	8,9
INADEQUATE FENCING/GUARDING	0,0
INADEQUATE PREVENTATIVE MAINTENANCE	0,0
USE OF UNSUITABLE FACILITIES	3,6

Table 8 Percentage Allocation of Cause of Accident in the Front End Loader Category

CATEGORY	PERCENTAGE
FAILURE TO COMPLY WITH INSTRUCTIONS	7,7
FAILURE TO COMPLY WITH STANDARDS	46,1
FAILURE TO USE SAFETY OR PROTECTIVE DEVICES	11,5
FAILURE TO SUPPLY SAFETY EQUIPMENT	0,0
FAILURE TO SUPPLY PROPER TOOLS AND EQUIPMENT	0,0
LACK OF SUITABLE SYSTEMS/FACILITIES	3,8
LACK OF STANDARDS OR PROCEDURES	3,8
LACK OF CAUTION/ALERTNESS	0,0
LACK OF CLEARANCE (OBSTRUCTION)	15,4
LACK OF ILLUMINATION/VISIBILITY	3,8
LACK OF SUITABLE TRAINING/INSTRUCTIONS	0,0
INADEQUATE SUPERVISION/DISCIPLINE	3,8
INADEQUATE EXAMINATION/INSPECTION/TEST	0,0
INADEQUATE FENCING/GUARDING	3,8

The causes of non-compliance with standards as well as the lack of caution and alertness tend to indicate a significant human aspect. This could be due to a lack of training or lack of awareness as identified by other authors.

In considering the detailed trends (Figure 6) for the Total accidents in the four identified categories, it can be seen that there are no significant downward trends except in the case of the front end loader. This is cause for concern as the overall trend has been to decrease. This could lead to the conclusion that these areas are problematic as the efforts to reduce accidents do not have the same effect on them as on the other accidents.

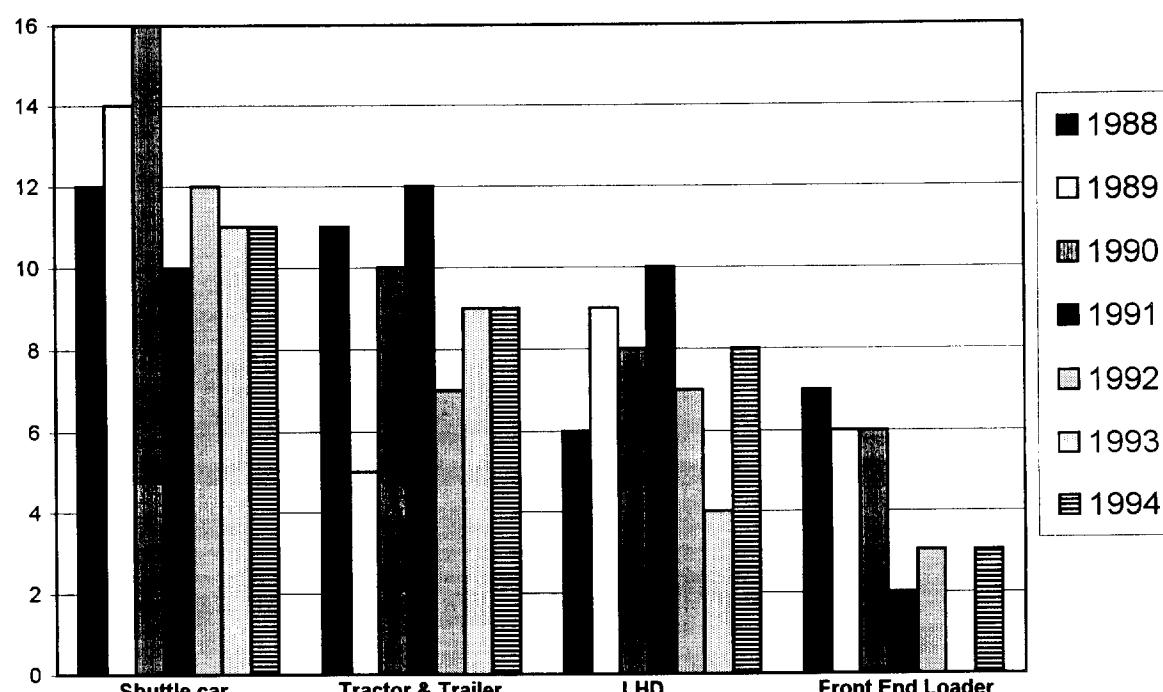


Figure 6 Yearly Accidents for the Four Significant Sub-Categories

In Figure 7 the sites for accidents in the three sub-categories are depicted.

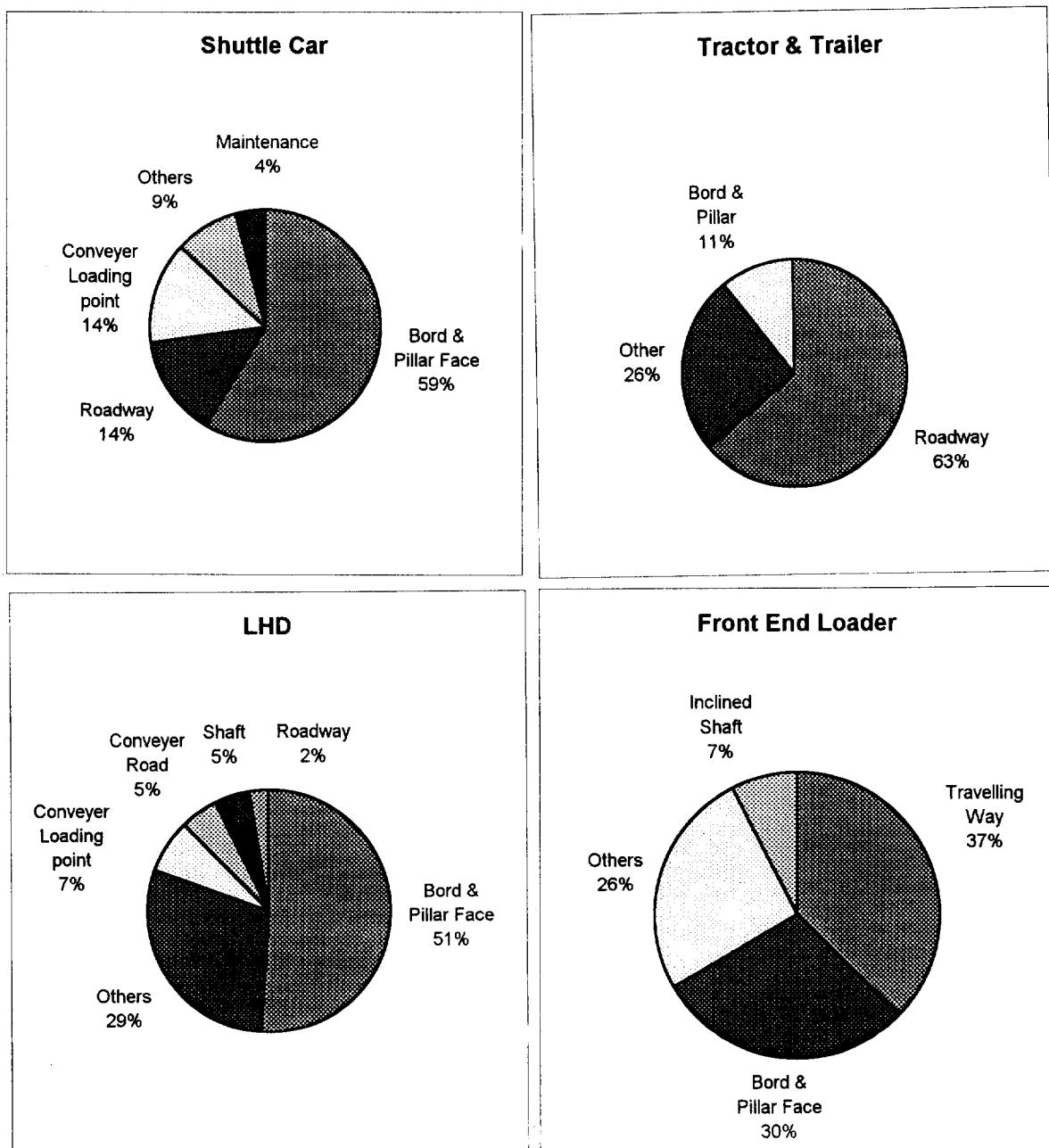


Figure 7 Percentages of the Sites for Accident Occurrences

For the shuttle car and LHD, both of which are coal winning machines, it is evident that the most accidents occur in the face, while for the front end loader and tractor the sites where accidents occur is either in the travelling ways or roadways. It would seem that the majority of accidents occur when the equipment is busy doing the work they were designed for. This means further that such accidents occur when the normal operators, who should be well conversant with the operation, are busy with the machines.

In trying to assess the occupation and activity of the person involved in the accident no strong trend could be identified.

7 CONCLUSIONS

Comparing previous work done into this area with the outcome of this study it is evident that the basis used for choosing the accidents can cause the significance of accidents causes to change.

The sub-categories or categories that are subject to the highest significance using 'allocated days lost' as indicator are

Shuttle Cars
Tractor Trailers
Load Haul Dumpers
Front End Loaders.

If the Load Haul Dumpers and Front End Loader are combined then this combined sub-category takes on more significance and the top three sub-categories-categories become in order of significance

Shuttle Cars
Load Haul Dumper & Front End Loader
Tractor Trailer.

In all these categories the failure to comply with good practice/standards/procedures is the highest occurring cause for accidents. It should be noted that the use of this cause, which is, by definition very encompassing, might be due to the inability of the process to determine underlying causes.

It is recommended that further work be focussed on the categories of Shuttle Cars, LHD's and FEL's, and Tractors and Trailer. This should not be at the exclusion of other categories in the Transport and Machinery area where severe disabling injuries also occur. In the identification of causes to enable rectifying action to be taken work will have to be done to identify underlying causes. This work will have to be based on problem solving techniques rather than on the pure statistical analysis of historical data.

APPENDIX 1

Relevant tables with regard to coal mining accident statistics 1984-1993

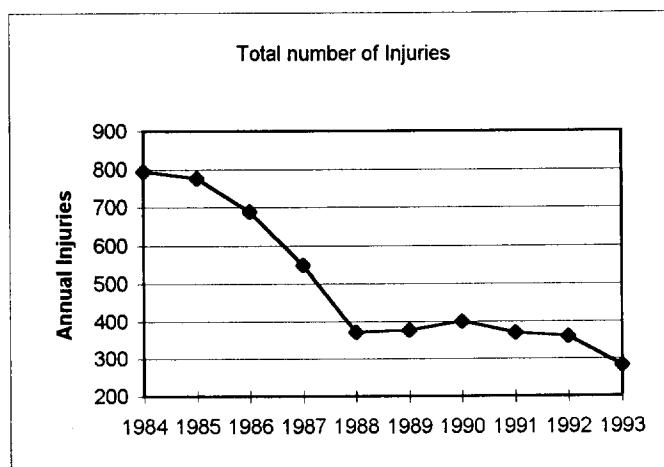
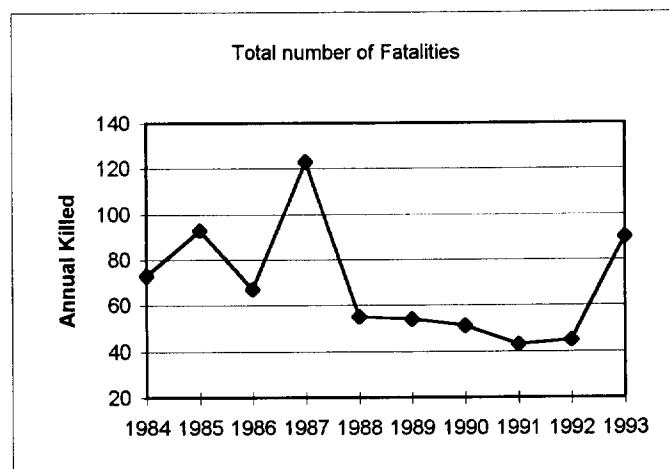
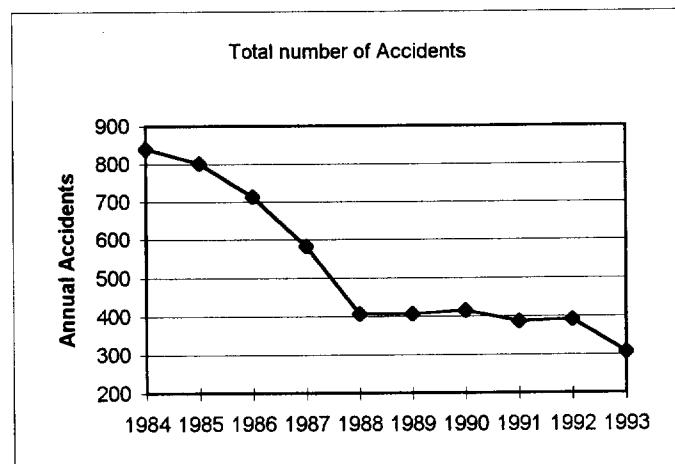
(SOURCE: Phillips, H.R. and Landman, G.v.R. The Development of a Discussion Document on the Safety Related Research Needs of the Coal Mining Industry. Final project report, SIMRAC, March 1994, pp 4-8.)

CATEGORY	ACCIDENT		KILLED		INJURED	
	TOTAL	%	TOTAL	%	TOTAL	%
Fall of Ground:						
Rockbursts	2	0.0	1	0.1	1	0.0
Other Falls	1164	22.2	228	32.9	1048	21.1
Machinery	435	8.3	34	4.9	400	8.1
Trucks and Tramways	1619	30.8	153	22.0	1376	27.7
Fall of Material:						
On Surface	241	4.6	10	1.4	235	4.7
Below Surface	410	7.8	14	2.0	399	8.0
Falling Shafts, Excavations:						
On Surface	63	1.2	14	2.0	149	3.0
Below Surface	23	0.4	3	0.4	21	0.4
Struck by Cage/Skip	12	0.2	4	0.6	10	0.2
Travelling by Cage/Skip	1	0.0	0	0.0	1	0.0
Breaking of Haulage Ropes	0	0.0	0	0.0	0	0.0
Travelling by Ladder	0	0.0	0	0.0	0	0.0
Overwind and Runaways	0	0.0	0	0.0	0	0.0
Directly caused by electricity	110	2.1	11	1.6	113	2.3
Due to Underground Fires	11	0.2	7	1.0	33	0.7
Inundation by Water/Mud	10	0.2	21	3.0	6	0.1
Miscellaneous:						
Explosion of Gas	15	0.3	131	18.9	36	0.7
Subsidence	1	0.0	0	0.0	1	0.0
Burning and Scalding	65	1.2	2	0.3	70	1.4
Falling and Slipping	337	6.4	13	1.9	342	6.9
Splinters	55	1.0	0	0.0	42	0.8
Elevators	37	0.7	2	0.3	35	0.7
Heat Stroke	0	0.0	0	0.0	0	0.0
Heat Exhaustion	0	0.0	0	0.0	0	0.0
Sundry	526	10.0	34	4.9	502	10.1
Explosives:						
Drilling into misfired holes	5	0.1	0	0.0	5	0.1
Due to Fumes	2	0.0	0	0.0	2	0.0
During Blasting Operations	88	1.7	15	2.2	109	2.2
Handling Detonation	10	0.2	0	0.0	10	0.2
Whilst Charging	0	0.0	0	0.0	0	0.0
Withdrawing Charges	0	0.0	0	0.0	0	0.0
Sundry	9	0.2	2	0.3	16	0.3
TOTAL	5251	100.0	694	100.0	4962	100.0

-Appendix 1 p1.2 -

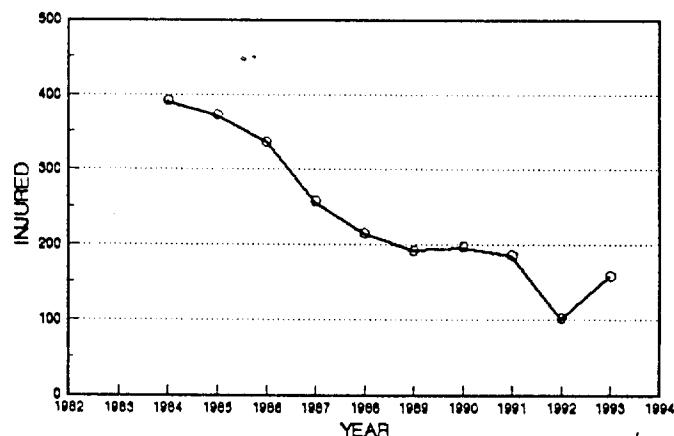
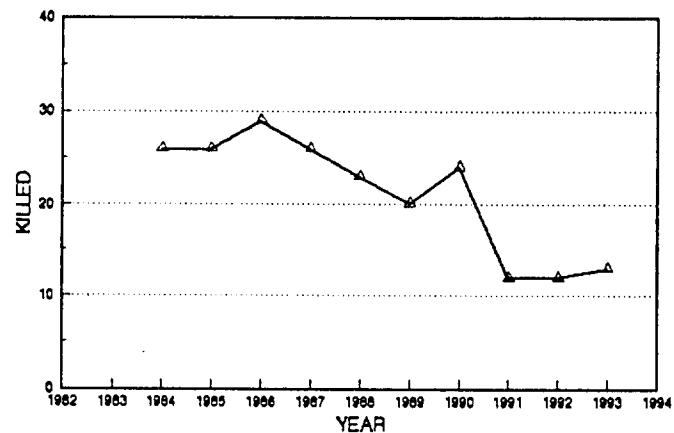
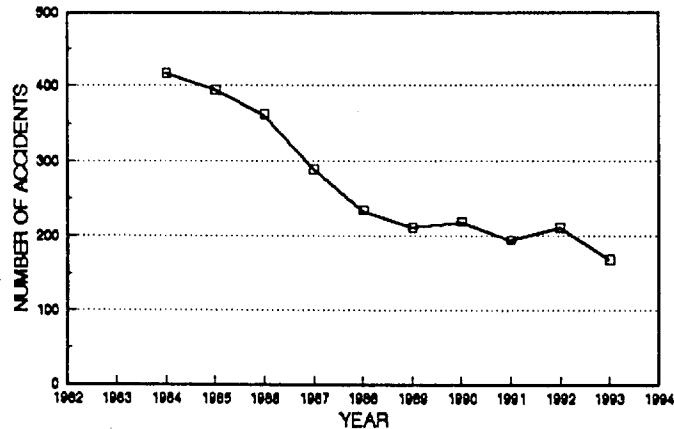
CATEGORY	YEAR		1984		1985		1986		1987		1988		1989		1990		1991		1992		1993	
	Accidents Killed	Injured (no)																				
Fall of Ground																						
Rockbursts																						
Other Falls	176	22	180	184	22	152	149	24	141	115	34	105	96	23	85	111	29	103	80	16	86	
Machinery	59	5	53	54	4	50	74	6	66	50	2	47	34	4	30	33	4	49	4	45	38	
Trucks and Tramways	238	18	221	245	18	220	204	22	184	178	17	196	158	19	142	123	13	110	127	17	112	
Fall of material,																						
On Surface	34	1	33	39	4	36	27	1	27	14	2	13	9	9	26	2	24	17	17	17	22	
Below Surface	87	2	85	98	2	57	57	57	47	5	42	34	34	30	1	29	26	3	23	21	21	
Falling Sheds, Excavations																						
On Surface	5	2	3	4	2	2	1	1	1	6	2	4	12	2	10	8	3	5	8	6	13	
Below Surface	1	1	1	1	1	1	1	1	1	4	4	4	2	2	3	2	2	3	3	6	1	
Struck by Cages/STD.	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	
Travelling by Cage/STD																						
Breaking of Hanging Ropes																						
Travelling by Ladder																						
Overwind and Runaway*																						
Directly caused by Electricity	26	2	20	15	20	12	12	8	2	7	9	2	7	13	1	12	8	1	9	7	7	
Boilers and Steam Pipes																						
Due to Underground Fires																						
Inhibition by Water/Mud																						
Water/Hydrocarbons																						
Explosion of Gas	2	7	1	1	33	2	10	2	37	11	2	6	1	1	4	2	2	1	1	1	2	50
Subsidence																						
Burining and Scalding	12	1	15	19	18	11	11	9	12	4	4	3	3	3	3	3	1	2	2	10	10	
Falling and Slipping	72	2	72	48	4	44	49	4	45	31	2	45	18	18	27	27	28	1	28	19	25	
Splinters	6	6	6	6	1	1	1	1	18	2	3	1	1	3	3	3	3	3	3	3	10	
Excavators																						
Heart Stroke																						
Heat Exhaustion																						
Sunburn	107	8	101	126	1	125	106	6	104	95	7	89	18	2	16	9	9	22	3	18	27	
Exposures*																						
Drilling into misted holes	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	
Due to Fumes	9	10	16	3	18	12	18	9	2	14	8	8	7	1	6	10	19	8	2	3	9	
During Blasting Operations																						
Handling Demolition	1	1	3	3	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	
Whilst Charging																						
Withdrawing Charges																						
Safely	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	5	1	2	
TOTAL	610	73	705	802	93	775	714	67	667	592	123	595	408	57	372	407	74	377	415	387	43	303

TOTAL CAOL MINING ACCIDENTS FOR PERIOD 1984 -1993



COAL MINING ACCIDENTS

HAULAGE, TRANSPORT AND MACHINERY



Trends in Haulage, Transport and Machinery
Accidents Over a 10 Year Period

APPENDIX 2

TABLES SHOWING ACCIDENT VALUES FROM THE SAMRASS DOWNLOAD AND INFORMATION FROM DMEA

code	Categories	1988			1989			1990			1991			1992			1993			1994			A 1988-1994			
		fat	inj	tot																						
NATAL DUNDEE																										
O2	Machinery	0	7	7	0	4	4	0	5	5	0	4	4	0	1	1	0	0	0	0	1	1	0	22	22	
O2A	conveyor belts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	
O2B	Drives Belts&chains	0	3	3	0	2	2	0	4	4	0	2	2	0	0	0	0	0	0	0	0	0	0	12	12	
O2C	Portable powertools	0	1	1	0	1	1	0	2	2	0	1	1	0	2	2	0	2	2	0	0	0	0	9	9	
O2D	Other machinery	0	11	11	0	7	7	0	11	11	0	7	7	0	4	4	0	4	4	0	1	1	0	45	45	
TOTAL MACHINERY																										
O3	Tnsprt & Mining	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	17	18	
O301	locomotive	0	8	8	0	1	2	3	0	4	4	0	1	1	0	1	1	0	1	1	0	1	1	1	19	20
O302	Endless Haulage	0	4	4	0	1	1	0	1	1	0	5	5	0	1	1	0	1	1	0	4	4	0	102	102	
O303	Winches	0	43	43	0	8	8	0	7	7	0	9	9	0	13	13	0	18	18	0	2	2	0	4	4	
O304	Hand Trammed	1	2	3	0	0	0	1	2	3	0	7	7	0	2	2	0	2	2	0	4	4	2	19	21	
O305	Tractor	0	14	14	0	4	4	0	8	8	0	13	13	0	6	6	0	6	6	0	2	2	0	53	55	
O306	Coal Mining Machines	0	2	2	0	6	6	0	3	3	0	1	1	0	2	2	0	0	0	0	0	0	0	14	14	
O307	Mechanical loaders	2	11	13	0	11	11	0	6	6	0	11	11	2	5	7	0	6	6	0	4	4	4	54	58	
O308	Transporters	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	
O309	Motor vehicles	0	95	98	1	40	41	1	33	34	1	34	35	0	49	49	3	46	49	2	37	39	0	16	16	
O310	Lifting machines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	
O311	Mobile Drills	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	
O312	Other T&M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL TRANSPORT & MINING																							10	299	309	
TOTAL NATAL																							10	344	354	
E TVL HEIDELBERG WITBANK ERMELD A88-91																										
O2	Machinery	1	1	2	1	3	4	0	9	9	0	1	1	0	6	6	0	6	6	2	3	5	4	23	27	
O2A	conveyor belts	0	1	1	0	1	1	0	1	1	0	1	1	0	3	3	0	1	1	0	1	1	0	4	4	
O2B	Drives Belts&chains	0	2	2	0	1	1	0	1	1	0	7	7	0	1	1	0	3	3	0	3	3	0	13	13	
O2C	Portable powertools	1	3	4	2	7	9	0	18	18	0	18	18	0	5	5	0	11	11	0	0	0	3	19	22	
O2D	Other machinery	2	7	9	3	11	14	0	18	18	0	18	18	0	5	5	0	11	11	0	0	0	2	7	9	
TOTAL MACHINERY																							7	59	66	
O3	Tnsprt & Mining	1	0	1	0	1	1	1	2	2	1	1	2	1	0	1	0	1	1	0	1	1	4	4	8	
O301	locomotive	0	1	1	0	1	1	0	1	1	0	1	1	1	0	1	1	0	1	1	1	1	1	2	3	
O302	Endless Haulage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
O303	Winches	2	6	8	0	5	5	5	4	9	0	7	7	0	5	5	0	7	7	1	2	3	8	36	44	
O304	Hand Trammed	0	8	10	3	9	12	1	10	11	0	5	5	1	3	4	1	8	9	1	4	5	7	40	47	
O305	Tractor	2	14	16	2	15	17	3	18	21	2	12	14	2	13	15	2	9	11	4	16	20	17	97	114	
O306	Coal Mining Machines	1	12	13	0	1	1	0	3	3	0	6	6	0	3	3	0	3	3	0	2	2	1	27	28	
O307	Mechanical loaders	0	0	0	0	2	2	0	1	1	0	0	0	1	2	3	0	8	9	1	5	6	7	39	46	
O308	Transporters	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
O309	Motor vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
O310	Lifting machines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
O311	Mobile Drills	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
O312	Other T&M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL TRANSPORT & MINING																							45	279	324	
TOTAL E TVL																							52	338	390	

ALL AREAS																														
O2	Machinery	1	8	9	1	7	8	0	14	14	0	5	5	0	7	7	0	0	0	2	4	6	4	45	49					
O2A	conveyor belts	0	1	1	0	1	1	0	1	1	0	0	0	0	1	1	0	1	1	0	6	6	0	6	6					
O2B	Drives Belts&chains	0	5	5	0	2	2	0	5	5	0	5	5	0	4	4	0	1	1	0	3	3	0	25	25					
O2C	Portable powertools	1	4	5	2	8	10	0	9	9	0	2	2	0	3	3	0	2	2	0	0	0	3	28	31					
O2D	Other machinery	TOTAL MACHINERY		2	18	20	3	18	21	0	29	29	0	12	12	0	15	15	0	4	4	2	8	10	7	104	111			
O3	Transpit & Mining	1	0	1	0	1	1	0	0	0	1	1	0	1	2	1	1	1	0	1	1	0	1	1	4	4	8			
O301	locomotive	0	9	9	1	2	3	0	4	4	0	0	0	0	1	1	1	1	2	0	2	2	2	19	21	2	19	21		
O302	Endless Haulage	0	4	4	0	1	1	0	1	1	0	5	5	0	6	7	0	1	1	0	1	1	1	1	1	19	20	1	19	20
O303	Winches	0	43	43	0	8	8	0	8	8	0	9	9	0	13	13	0	18	18	0	4	4	0	103	103	0	103	103		
O304	Hand Trammed	3	8	11	0	5	5	6	6	12	0	14	14	0	7	7	0	9	9	1	7	8	10	56	66	10	56	66		
O305	Tractor	0	22	22	0	8	8	3	15	18	1	19	20	1	10	11	3	14	17	1	6	7	9	94	103	9	94	103		
O306	Coal Mining Machines	2	10	12	3	15	18	1	13	14	0	6	6	0	4	4	0	0	0	1	5	6	7	53	60	7	53	60		
O307	Mechanical loaders	4	25	29	2	26	28	3	25	28	2	23	25	4	18	22	2	15	17	4	20	24	21	152	173	21	152	173		
O308	Transporters	1	12	13	0	2	2	0	3	3	0	6	6	0	2	2	0	3	3	0	2	2	1	30	31	1	30	31		
O309	Motor vehicles	0	0	0	0	2	2	0	1	1	0	2	2	1	4	5	0	0	0	0	0	0	1	9	10	1	9	10		
O310	Lifting machines	0	0	0	0	0	0	0	7	7	0	9	9	1	6	7	0	15	15	0	7	7	1	3	4	2	47	49		
O311	Mobile Drills	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0		
O312	Other T&M	TOTAL TRANSPORT & MINING		11	133	144	6	77	83	14	85	99	5	91	96	8	81	89	7	68	75	8	51	59	59	586	645			
TOTAL ALL COAL AREAS		13	161	164	9	95	104	14	114	128	5	103	108	8	96	104	7	72	79	10	59	69	10	59	69	66	690	756		

Underground Coal Accident Data (Fatal & Multiples) All Regions (1988-1992)

ACCNO	CLASS/ACC	CLASS/PLACE	TIME	CAUSE	OCCUPATION		ACTIVITY
					Foreman	Coal Cutter Driver/crew	
92F0001F	Chain Block	Conveyer Road (UG)	9:00	Failure To Comply With Standards	Continuous Miner Driver	Operate/Drive T.Less Vehicle	Standing
91S0074F	Coal Cutter	Bord & Pillar (Face)	7:30	Lack of Caution / Alertness	General Labourer	Walking / Traveling by Foot	Walking / Traveling by Foot
90S0159F	Continuous Miner	Bord & Pillar (Face)	18:30	Failure To Comply With Standards	General Labourer	Tramming	Tramming
92F0355F	Continuous Miner	Bord & Pillar (Face)	10:23	Lack of Adequate/ Suitable Training	General Labourer	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
89S042F	Conveyer Belt (Snub Pulley)	Conveyer Loading Point	22:30	Rendering Safety Device Ineffective	Conveyer Belt Attendant	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
88S0120F	Conveyer Belt (Snub Pulley)	Conveyer Road (UG)	11:30	Failure To Comply With Instructions	Haulage Attendant	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
89R0098F	Endless Rope Haulage	Haulage (inc. Endless Rope)	10:30	Failure To Comply With Standards	Front End Loader Driver	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
89S0128F	Front End Loader	Decline	13:30	Failure To Comply With Standards	Continuous Miner Driver	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
88S0070F	Front End Loader	Raise or Winze	14:30	Failure to use Safety Device/EQySyst	Pump attendant	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
88S0164F	Front End Loader	Traveling Way (excl. Shafts)	11:30	Failure To Comply With Instructions	Driller	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
89N0003F	Gathering Arm Loader	Bord & Pillar (Face)	8:30	Failure To Comply With Standards	Machine Operator	Tramming	Tramming
90N0212F	Gathering Arm Loader	Bord & Pillar (Face)	19:30	Lack of Caution / Alertness	Machine Operator	Connect Equip/Mach/Hoses	Connect Equip/Mach/Hoses
91S0128F	Hydraulic Drill Rig	Bord & Pillar (Face)	9:30	Failure To Comply With Standards	Electro Mechanic/Millwright	Riding on other Vehicles	Riding on other Vehicles
93H3006F	LDV (Light Delivery Vehicle)	Roadway (UG)	04:45	Inadequate Exam/Inspt./Test	Artisan Helper	Sitting	Sitting
92E0021F	Load Hall Dumper	Bord & Pillar (Face)	12:30	Failure To Comply With Standards	Mine Surveyor	Sitting	Sitting
92E0041F	Load Hall Dumper	Bord & Pillar (Face)	21:30	Lack of Caution / Alertness	Machine Operator	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
88R0087F	Load Hall Dumper	Roadway (UG)	23:30	Lack of Illumination/ Visibility	Machine Operator	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
88S0049F	Locomotive (Diesel)	Traveling Way (excl. Shafts)	7:30	Failure To Comply With Instructions	Locomotive Guard/Tumbler Point	Standing	Standing
92F0313F	Locomotive (Diesel)	Vertical Shaft Station	5:30	Failure To Comply With Standards	Locomotive Driver	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
89S0017F	Other Mach.(Not included in T&M)	Longwall	9:30	Failure to use Safety Device/EQySyst	Electrician	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
89S0048F	Other Mach.(Not included in T&M)	Roadway (UG)	17:30	Failure To Comply With Standards	General Labourer	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
88T0361F	Other Machinery	Conveyer Loading Point	7:30	Failure To Comply With Instructions	Tip Assistant/Attendant	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
89S0173F	Other Mechanical Loader	Haulage (inc. Endless Rope)	7:30	Failure To Comply With Standards	Battery Assembler	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
90N0258F	Other T&M Equip. (Track Bound)	Conveyer Loading Point	6:30	Failure To Comply With Standards	Tip Assistant/Attendant	Standing	Standing
88R0047F	Other Transporters (specify)	Conveyer Loading Point	13:30	Lack of Illumination/ Visibility	Conveyer Belt Attendant	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
88S0005F	Personnel Transporter	Roadway (UG)	14:30	Failure To Comply With Standards	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
92F0265F	Shuttle Car	Bord & Pillar (Face)	10:00	Failure To Comply With Standards	Pneumatic Driller	Drilling (Pneumatic)	Drilling (Pneumatic)
91N0294F	Shuttle Car	Bord & Pillar (Face)	10:30	Failure To Comply With Standards	Machine Operator	Operate/Drive T.Less Vehicle	Operate/Drive T.Less Vehicle
89S0256F	Shuttle Car	Bord & Pillar (Face)	11:30	Failure To Comply With Standards	Tip Assistant/Attendant	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
90S0064F	Shuttle Car	Bord & Pillar (Face)	15:30	Failure To Comply With Standards	Electro Mechanic/Millwright	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
91S0082F	Shuttle Car	Bord & Pillar (Face)	21:30	Failure To Comply With Standards	S.C./LHD/Scoop Driver/Crew	Walking / Traveling by Foot	Walking / Traveling by Foot
90N0126F	Shuttle Car	Bord & Pillar (Face)	10:30	Inadequate Preventative Maintenance	Mine Labourer	Charging up	Charging up
88T0219F	Shuttle Car	Conveyer Loading Point	8:30	Failure To Comply With Standards	Team Leader	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
90N0259F	Shuttle Car	Conveyer Loading Point	6:30	Failure To Comply With Standards	Electrician	Walking / Traveling by Foot	Walking / Traveling by Foot
89T0219F	Shuttle Car	Conveyer Loading Point	08:30	Failure To Comply With Standards	Team Leader	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
92F0424F	Shuttle Car	Haul Road (UG)	10:10	Lack of (or Inad. Std./Proc.)	Machine Attendant/Minder	Slinging	Slinging
88S0009F	Shuttle Car	Roadway (UG)	8:30	Lack of Adequate/ Suitable Training	Coal Cutter Driver/crew	Riding (Pass/Guard) Tr. Less Vehicle	Riding (Pass/Guard) Tr. Less Vehicle
88T0050F	Shuttle Car	Roadway (UG)	20:30	Lack of Caution / Alertness	Electrician	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
92E0118F	Scraper Winch Install. (face scraper)	Bord & Pillar (Face)	20:00	Failure To Comply With Standards	General Labourer	Repair/Serv/Maintain	Repair/Serv/Maintain
88N0002F	Tractor	Bord & Pillar (Face)	0:30	Lack of Clearance (Obstruction)	Team Leader	Unreliable Data (Acc. before 1/7/90)	Unreliable Data (Acc. before 1/7/90)
90N0225F	Tractor	Bord & Pillar (Face)	15:30	Failure To Comply With Instructions	Mechanic Aide		

88R0181F	Tractor	Traveling Way (excl. Shafts)	13:30 Failure To Comply With Instructions	Team Leader	Unreliable Data (Acc. before 1/7/90)
90R0111F	Trailer Drawn By Tractor	Traveling Way (excl. Shafts)	18:30 Failure To Comply With Standards	Fitter Aide	Riding (Pass/Guard) Tr. Less Vehicle
88S0212F	Trailer Drawn By Tractor	Traveling Way (excl. Shafts)	6:30 Failure To Comply With Standards	Machine Operator	Unreliable Data (Acc. before 1/7/90)
90N0105K	Coal Cutter	Bord & Pillar (Face)	19:30 Lack of (or Inad. Std./Proc.)	Machine Operator	Walking / Travelling by Foot
90N0001K	Tractor	Traveling Way (excl. Shafts)	15:30 Failure To Comply With Instructions	Conveyer Belt Attendant	Unreliable Data (Acc. before 1/7/90)
90N0001K	Tractor	Traveling Way (excl. Shafts)	15:30 Failure To Comply With Instructions	Team Leader	Unreliable Data (Acc. before 1/7/90)
91S0131M	Personnel Transporter	Traveling Way (excl. Shafts)	7:30 Failure To Comply With Standards	General Labourer	Riding (Pass/Guard) Tr. Less Vehicle
88S0012M	Personnel Transporter	Traveling Way (excl. Shafts)	6:30 Lack of Caution / Alertness	Conveyer Belt Attendant	Unreliable Data (Acc. before 1/7/90)
88S0012M	Personnel Transporter	Traveling Way (excl. Shafts)	6:30 Lack of Caution / Alertness	Mobile R.B. Mach. Operator	Unreliable Data (Acc. before 1/7/90)
88S0012M	Personnel Transporter	Traveling Way (excl. Shafts)	6:30 Lack of Caution / Alertness	Miner	Unreliable Data (Acc. before 1/7/90)
88S0118M	Shuttle Car	Other Location	8:30 Inadequate Preventative Maintenance	Artisan Helper	Unreliable Data (Acc. before 1/7/90)
88S0118M	Shuttle Car	Other Location	8:30 Inadequate Preventative Maintenance	Rigger	Unreliable Data (Acc. before 1/7/90)
91R0237M	Trailer Drawn By Tractor	Raise or Winze	7:30 Failure To Comply With Standards	Labourer	Riding (Pass/Guard) Tr. Less Vehicle
91R0237M	Trailer Drawn By Tractor	Raise or Winze	7:30 Failure To Comply With Standards	Labourer	Operate/Drive T.Less Vehicle
91S0079T	Loc. Drawn Vehicle (Hopper)	Haulage (inc. Endless Rope)	13:30 Failure To Comply With Standards	Team Leader	Rerailing
89S0226T	Loc. Drawn Vehicle (Other)	Haulage (inc. Endless Rope)	20:30 Lack of Caution / Alertness	Locomotive Guard/Tumbler Point	Unreliable Data (Acc. before 1/7/90)

Underground Coal Accident Data (Injuries) All Regions (1988-1992)

ACCNO	CLASS/ACC	CLASS/PLACE	TIME	CAUSE	OCCUPATION	ACTIVITY
89R0158I	Bicycle (pneumatic Tyre)	Roadway (UG)	12:30	Failure To Comply With Instructions	Driller	Unreliable Data (Acc. before 1/7/90)
88R0111I	Bicycle (pneumatic Tyre)	Roadway (UG)	14:30	Inadequate Preventative Maintenance	Fitter Aide	Unreliable Data (Acc. before 1/7/90)
89R0022I	Bicycle (pneumatic Tyre)	Roadway (UG)	14:30	Inadequate Preventative Maintenance	Artisan Helper	Unreliable Data (Acc. before 1/7/90)
91R0103I	Bicycle (pneumatic Tyre)	Roadway (UG)	6:30	Inadequate Preventative Maintenance	Miner	Riding (Pass/Guard) Tr. Less Vehicle
92E0148I	Bicycle (pneumatic Tyre)	Roadway (UG)	11:59	Use of Unsuitable Equip/Material/Facilities	Store Keep/Storeman/Issuer	Riding on other Vehicles
89R0127I	Bicycle (pneumatic Tyre)	Traveling Way (exc. Shafts)	8:30	Inadequate Exam/Inspe./Test	Artisan Helper	Unreliable Data (Acc. before 1/7/90)
91R0021I	Bicycle (pneumatic Tyre)	Traveling Way (exc. Shafts)	6:30	Lack of Caution / Alertness	Electro-Mechanic/Millwright	Riding on other Vehicles
89N0294I	Bicycle (pneumatic Tyre)	Traveling Way (exc. Shafts)	5:30	Lack of Clearance (Obstruction)	Fitter	Unreliable Data (Acc. before 1/7/90)
88S0079I	Bus	Roadway (UG)	14:30	Failure To Comply With Standards	Mine Labourer	Unreliable Data (Acc. before 1/7/90)
91N0216I	Bus	Roadway (UG)	7:30	Failure To Comply With Standards	Bus Driver	Operate/Drive T.Less Vehicle
90S0169I	Bus	Roadway (UG)	6:30	Lack of Caution / Alertness	Team Leader	Riding (Pass/Guard) Tr. Less Vehicle
90T0093I	Bus	Roadway (UG)	15:30	Use of Unsuitable Equip/Material/Facilities	Driller	Unreliable Data (Acc. before 1/7/90)
91S0132I	Bus	Traveling Way (exc. Shafts)	23:30	Failure To Comply With Standards	Team Leader	Riding (Pass/Guard) Tr. Less Vehicle
90S0045I	Chain Block	Bord & Pillar (Face)	10:30	Lack of (or Unsuitable) System/Facilities	General Labourer	Unreliable Data (Acc. before 1/7/90)
92E0285I	Chain Block	Vertical Shaft Station	16:00	Use of Unsuitable Equip/Material/Facilities	Artisan Helper	Loading / Offloading
88R0110I	Coal Cutter	Bord & Pillar (Face)	10:30	Failure To Comply With Instructions	Labourer	Unreliable Data (Acc. before 1/7/90)
91R0199I	Coal Cutter	Bord & Pillar (Face)	0:30	Failure To Comply With Standards	Coal Cutter Driver/crew	Handling
88R0017I	Coal Cutter	Bord & Pillar (Face)	10:30	Failure To Comply With Standards	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)
91R0082I	Coal Cutter	Bord & Pillar (Face)	10:30	Failure To Comply With Standards	Miner	Tramming
90N0114I	Coal Cutter	Bord & Pillar (Face)	11:30	Failure To Comply With Standards	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)
92E0098I	Coal Cutter	Bord & Pillar (Face)	11:50	Failure To Comply With Standards	Coal Cutter Driver/crew	Riding on Track Bound Vehicle
92E0002I	Coal Cutter	Bord & Pillar (Face)	12:00	Failure To Comply With Standards	Coal Cutter Driver/crew	Operate/Drive Tr. Bound Vehicle
89R0079I	Coal Cutter	Bord & Pillar (Face)	13:30	Failure To Comply With Standards	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)
92E0158I	Coal Cutter	Bord & Pillar (Face)	13:30	Failure To Comply With Standards	Coal Cutter Driver/crew	Pulling
92G0193I	Coal Cutter	Bord & Pillar (Face)	14:00	Failure To Comply With Standards	Coal Cutter Driver/crew	Operate/Drive T.Less Vehicle
91R0016I	Coal Cutter	Bord & Pillar (Face)	14:30	Failure To Comply With Standards	Coal Cutter Driver/crew	Standing
88N0181I	Coal Cutter	Bord & Pillar (Face)	14:30	Failure To Comply With Standards	Fitter Aide	Unreliable Data (Acc. before 1/7/90)
91S0054I	Coal Cutter	Bord & Pillar (Face)	14:30	Failure To Comply With Standards	Driller	Holding
89R0084I	Coal Cutter	Bord & Pillar (Face)	16:30	Failure To Comply With Standards	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)
88N0347I	Coal Cutter	Bord & Pillar (Face)	16:30	Failure To Comply With Standards	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)
90R0065I	Coal Cutter	Bord & Pillar (Face)	18:30	Failure To Comply With Standards	Miner	Riding (Pass/Guard) Tr. Less Vehicle
91R0015I	Coal Cutter	Bord & Pillar (Face)	19:30	Failure To Comply With Standards	Miner	Clean Equip/Machinery
89R0107I	Coal Cutter	Bord & Pillar (Face)	20:30	Failure To Comply With Standards	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)
89R0162I	Coal Cutter	Bord & Pillar (Face)	21:30	Failure To Comply With Standards	Winch Driver	Tramming
89N0175I	Coal Cutter	Bord & Pillar (Face)	8:30	Failure To Comply With Standards	Driller	Unreliable Data (Acc. before 1/7/90)
88S0235I	Coal Cutter	Bord & Pillar (Face)	9:30	Failure To Comply With Standards	Pneumatic Driller	Unreliable Data (Acc. before 1/7/90)
89N0249I	Coal Cutter	Bord & Pillar (Face)	9:30	Failure To Comply With Standards	General Labourer	Unreliable Data (Acc. before 1/7/90)
91R0031I	Coal Cutter	Bord & Pillar (Face)	2:30	Failure to Supply Proper Tool/Equip	Coal Cutter Driver/crew	Loosening
88R0343I	Coal Cutter	Bord & Pillar (Face)	13:30	Inadequate Supervision/Discipline	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)
88R0007I	Coal Cutter	Bord & Pillar (Face)	14:30	Inadequate Supervision/Discipline	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)
88R0109I	Coal Cutter	Bord & Pillar (Face)	22:30	Inadequate Supervision/Discipline	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)

Underground Coal Accident Data (Injuries) All Regions (1988-1992)

					CLASS/ACC	CLASS/PLACE	TIME	CAUSE	OCCUPATION	ACTIVITY
92E0107I	Coal Cutter	Bord & Pillar (Face)	11:00	Lack of Adequate/ Suitable Training	Coal Cutter Driver/crew	Holding				
91R0029I	Coal Cutter	Bord & Pillar (Face)	1:30	Lack of Caution / Alertness	Lasher	Rerailing				
88R0011I	Coal Cutter	Bord & Pillar (Face)	10:30	Lack of Caution / Alertness	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)				
90R0020I	Coal Cutter	Bord & Pillar (Face)	14:30	Lack of Caution / Alertness	Fitter Aide	Unreliable Data (Acc. before 1/7/90)				
90R0140I	Coal Cutter	Bord & Pillar (Face)	14:30	Lack of Caution / Alertness	Coal Cutter Driver/crew	Operate Equip/Mach/Tools				
90R0093I	Coal Cutter	Bord & Pillar (Face)	0:30	Lack of Clearance (Obstruction)	Coal Cutter Driver/crew	Holding				
91R0028I	Coal Cutter	Bord & Pillar (Face)	10:30	Use of Unsuitable Equip/Material/Facilities	Coal Cutter Driver/crew	Cutting with Tool				
88R0206I	Coal Cutter	Bord & Pillar (Face)	14:30	Use of Unsuitable Equip/Material/Facilities	Filter	Unreliable Data (Acc. before 1/7/90)				
88R0307I	Coal Cutter	Bord & Pillar (Face)	14:30	Use of Unsuitable Equip/Material/Facilities	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)				
88R0205I	Coal Cutter	Bord & Pillar (Face)	18:30	Use of Unsuitable Equip/Material/Facilities	Team Leader	Unreliable Data (Acc. before 1/7/90)				
88R0294I	Coal Cutter	Conveyer Loading Point	8:30	Lack of Clearance (Obstruction)	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)				
88R0073I	Coal Cutter	Haulage (inc. Endless Rope)	6:30	Use of Unsuitable Equip/Material/Facilities	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)				
90R0063I	Coal Cutter	Longwall	19:30	Failure To Comply With Standards	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)				
88S0144I	Coal Cutter	Other Location	10:30	Lack of Caution / Alertness	General Labourer	Unreliable Data (Acc. before 1/7/90)				
90R0173I	Coal Cutter	Roadway (UG)	14:30	Failure To Comply With Standards	Machine Operator	Holding				
91R0157I	Coal Cutter	Roadway (UG)	7:30	Failure To Comply With Standards	Coal Cutter Driver/crew	Tramming				
90T0295I	Coal Cutter	Traveling Way (Excl. Shafts)	03:30	Failure to use Safety Device/Eq/Syst	Foreman	Moving Objects				
90T0295I	Coal Cutter	Traveling Way (exc. Shafts)	3:30	Failure to use Safety Device/Eq/Syst	Foreman	Moving objects				
92F0356I	Coal Cutter	Traveling Way (exc. Shafts)	17:45	Lack of Caution / Alertness	Team Leader	Connect Equip/Mach/Hoses				
90N0022I	Coal Cutter	Traveling Way (exc. Shafts)	14:30	Use of Unsuitable Equip/Material/Facilities	Fitter	Unreliable Data (Acc. before 1/7/90)				
92F0268I	Continuous Miner	Boilermaking / Welding Shop	9:30	Failure To Comply With Standards	Fitter	Changing (Not Equip/Mach)				
91R0076I	Continuous Miner	Bord & Pillar (Face)	10:30	Failure To Comply With Standards	Machine Operator	Removing Equip/Machinery				
90S0066I	Continuous Miner	Bord & Pillar (Face)	10:30	Failure To Comply With Standards	Continuous Miner Driver	Resting				
91S0116I	Continuous Miner	Bord & Pillar (Face)	10:30	Failure To Comply With Standards	Fitter Aide	Standing				
90R0104I	Continuous Miner	Bord & Pillar (Face)	12:30	Failure To Comply With Standards	Handyman	Repair/Serv/Maintain				
91R0081I	Continuous Miner	Bord & Pillar (Face)	14:30	Failure To Comply With Standards	Machine Operator	Suspending / Hanging				
92E0064I	Continuous Miner	Bord & Pillar (Face)	15:00	Failure To Comply With Standards	General Labourer	Installing Equip/Machinery				
90S0094I	Continuous Miner	Bord & Pillar (Face)	15:30	Failure To Comply With Standards	Miner	Walking / Traveling by Foot				
88S0008I	Continuous Miner	Bord & Pillar (Face)	2:30	Failure To Comply With Standards	Continuous Miner Driver	Unreliable Data (Acc. before 1/7/90)				
91S0098I	Continuous Miner	Bord & Pillar (Face)	2:30	Failure To Comply With Standards	S.C./LHD/Scop Driver/Crew	Loading / Offloading				
91S0023I	Continuous Miner	Bord & Pillar (Face)	5:30	Failure To Comply With Standards	Machine Operator	Sitting				
89S0105I	Continuous Miner	Bord & Pillar (Face)	13:30	Lack of Adequate/ Suitable Training	Continuous Miner Driver	Unreliable Data (Acc. before 1/7/90)				
90R0151I	Continuous Miner	Bord & Pillar (Face)	9:30	Lack of Adequate/ Suitable Training	Team Leader	Loosening				
91S0172I	Continuous Miner	Bord & Pillar (Face)	12:30	Lack of Caution / Alertness	Tip Assistant/Attendant	Install Supp/Barr/S/Wall				
92F0446I	Continuous Miner	Bord & Pillar (Face)	22:00	Lack of Caution / Alertness	Boesman/Rocker Arm Shovel Driver	Check (Not Eq/Mach/Vehicle)				
91R0124I	Continuous Miner	Conveyer Road (UG)	22:30	Failure to use Safety Device/Eq/Syst	Labourer	Raising/Lift/Lower by Hand				
88S0061I	Continuous Miner	Roadway (UG)	3:30	Failure To Comply With Standards	Team Leader	Unreliable Data (Acc. before 1/7/90)				
89T0276I	Conveyer Belt (idler)	Conveyer Road (UG)	9:30	Lack of Caution / Alertness	Fitter Aide	Unreliable Data (Acc. before 1/7/90)				
89R0103I	Conveyer Belt (Snub Pulley)	Conveyer Discharge Point	12:30	Failure To Comply With Standards	Supervisor	Unreliable Data (Acc. before 1/7/90)				
88R0318I	Conveyer Belt (Snub Pulley)	Longwall	10:30	Failure To Comply With Instructions	Team Leader	Unreliable Data (Acc. before 1/7/90)				
90S0024I	Conveyer Belt (Tail Pulley)	Bord & Pillar (Face)	14:30	Failure To Comply With Standards	Tip Assistant/Attendant	Kicking				

Underground Coal Accident Data (Injuries) All Regions (1988-1992)

ACCNO	CLASS/ACC	CLASS/PLACE	TIME	CAUSE	OCCUPATION	ACTIVITY
90R0079I	Conveyer Belt (Tail Pulley)	Conveyer Loading Point	14:30	Failure To Comply With Standards	Team Leader	Removing Equip/Machinery
90R0167I	Conveyer Belt (Tail Pulley)	Conveyer Loading Point	6:30	Failure To Comply With Standards	Miner	Remove Not Supp/Equip/Mach
91R0141I	Conveyer Belt (Tail Pulley)	Conveyer Loading Point	9:30	Failure To Comply With Standards	Labourer	Cleaning (NOT Eq/Mach/Footwall)
90S0079I	Conveyer Belt (Tail Pulley)	Conveyer Loading Point	9:30	Failure To Comply With Standards	Conveyer Belt Attendant	Clean Equip/Machinery
90N0304I	Conveyer Belt (Tail Pulley)	Conveyer Loading Point	17:30	Failure to Supply Proper Tool/Equip	Labourer	Clean Equip/Machinery
91S0112I	Conveyer Belt (Tail Pulley)	Conveyer Loading Point	12:30	Lack of Caution / Alertness	Beltsman	Handling
88R0275I	Conveyer Belt (Tail Pulley)	Conveyer Loading Point	10:30	Rendering Safety Device Ineffective	General Labourer	Walking / Traveling by Foot
90R0098I	Conveyer Belt (Tail Pulley)	Conveyer Road (UG)	20:30	Failure To Comply With Instructions	Mine Labourer	Cleaning Footwall
90N0152I	Conveyer Belt (Tail Pulley)	Conveyer Road (UG)	6:30	Failure To Comply With Standards	General Labourer	Repair/Serv/Maintain
90T0347I	Conveyer Belt (Tail Pulley)	Conveyer Transfer Point	8:30	Lack of Caution / Alertness	Fitter Aide	Adjusting Equip/Mach
91R0194I	Conveyer Belt (Tail Pulley)	Longwall	16:30	Failure To Comply With Standards	Conveyer Belt Attendant	Removing Equip/Machinery
89R0257I	Conveyer Belt (Tail Pulley)	Longwall	6:30	Lack of Caution / Alertness	Mine Labourer	Installing Equip/Machinery
88R0289I	Conveyer Belt (Tail Pulley)	Other Location	9:30	Use of Unsuitable Equip/Material/Facilities	Artisan Helper	Unreliable Data (Acc. before 1/7/90)
88R0193I	Conveyer Belt (Tension Carriage)	Conveyer Transfer Point	19:30	Failure To Comply With Instructions	Conveyer Belt Attendant	Unreliable Data (Acc. before 1/7/90)
90S0098I	Conveyer Belt (Tension Carriage)	Conveyer Transfer Point	9:30	Failure To Comply With Standards	Conveyer Belt Attendant	Tightening
89N0163I	Conveyer Belt (Head Pulley)	Conveyer Discharge Point	13:30	Failure To Comply With Standards	Conveyer Belt Attendant	Unreliable Data (Acc. before 1/7/90)
92T0269I	Conveyer Belt (Head Pulley)	Conveyer Road (UG)	4:05	Failure To Comply With Standards	Conveyer Belt Attendant	Standing
88R0105I	Conveyer Belt (Head Pulley)	Conveyer Transfer Point	0:30	Failure To Comply With Instructions	Machine Attendant/Minder	Unreliable Data (Acc. before 1/7/90)
92E0085I	Conveyer Belt (Head Pulley)	Other Location	12:20	Failure To Comply With Instructions	General Labourer	Installing Equip/Machinery
92F0117I	Conveyer Belt (Idler)	Conveyer Road (UG)	11:00	Use of Unsuitable Equip/Material/Facilities	Labourer	Replacing
90N0069I	Conveyer Belt (Idler)	Conveyer Transfer Point	13:30	Failure to Supply Safety Dev/Equip/Syst	Mine Labourer	Unreliable Data (Acc. before 1/7/90)
88H0123I	Conveyer Belt (other)	Bord & Pillar (Face)	8:30	Lack of Caution / Alertness	Tip Assistant/Attendant	Unreliable Data (Acc. before 1/7/90)
89P0129I	Conveyer Belt (other)	Conveyer Loading Point	11:30	Failure To Comply With Instructions	Driller	Unreliable Data (Acc. before 1/7/90)
89R0040I	Conveyer Belt (other)	Conveyer Loading Point	12:30	Inadequate Exam/Inspe./Test	Conveyer Belt Attendant	Unreliable Data (Acc. before 1/7/90)
90T0185I	Conveyer Belt (other)	Conveyer Road (UG)	17:30	Failure To Comply With Instructions	Cable Worker (Linesman)	Riding on other Vehicles
92F0080I	Conveyer Belt (other)	Conveyer Road (UG)	13:40	Failure To Comply With Standards	Conveyer Belt Attendant	Remove Not Supp/Equip/Mach
90N0131I	Conveyer Belt (other)	Conveyer Road (UG)	14:30	Failure To Comply With Standards	General Labourer	Loosening
88R0006I	Conveyer Belt (other)	Conveyer Road (UG)	8:30	Failure To Comply With Standards	Labourer	Unreliable Data (Acc. before 1/7/90)
90R0108I	Conveyer Belt (other)	Conveyer Road (UG)	14:30	Inadequate Supervision/Discipline	Bricklayer	Jumping
92E0078I	Conveyer Belt (other)	Fan House or Chamber	1:30	Failure To Comply With Standards	Electrician	Check/Insp./Exam/Mach/Vehicle
92E0071I	Conveyer Belt (other)	Inclined Shaft (TWay)	9:26	Failure To Comply With Standards	Conveyer Belt Attendant	Cleaning (NOT Eq/Mach/Footwall)
91R0165I	Conveyer Belt (other)	Longwall	10:30	Failure To Comply With Standards	Team Leader	Installing Equip/Machinery
92E0079I	Conveyer Belt (other)	Longwall	11:00	Failure to use Safety Device/Eq./Syst	Miner	Remove Not Supp/Equip/Mach
90R0193I	Conveyer Belt (other)	Longwall	11:30	Inadequate Exam/Insp./Test	Fitter	Check/Insp./Exam/Mach/Vehicle
88R0238I	Conveyer Belt (other)	Other Location	3:30	Failure To Comply With Standards	Beltsman	Unreliable Data (Acc. before 1/7/90)
90N0115I	Conveyer Belt (other)	Other Location	8:30	Failure To Comply With Standards	Machine Attendant/Minder	Cleaning (NOT Eq/Mach/Footwall)
89N0079I	Conveyer Belt (other)	Other w/shop (not repair bay)	11:30	Failure To Comply With Standards	Artisan Helper	Unreliable Data (Acc. before 1/7/90)
91R0190I	Crane, Jib, Crawlinch (M. Crane)	Fitting Shop (fitting/turning)	11:30	Failure To Comply With Standards	Fitter	Raising/Lift/Lower with Mach
89N0389I	Crane, Jib, Crawlinch (Mobile Crane)	Conveyer Road (UG)	9:30	Failure To Comply With Standards	Tractor Driver	Unreliable Data (Acc. before 1/7/90)
89R0092I	Double Drum Winch	Conveyer Road (UG)	20:30	Failure To Comply With Standards	Machine Attendant/Minder	Unreliable Data (Acc. before 1/7/90)
90S0025I	Driver, Belts, Chains (V-belt)	Shaft Bottom (Excl. Sinking)	16:30	Failure To Comply With Standards	Tractor Driver	Unreliable Data (Acc. before 1/7/90)

Underground Coal Accident Data (Injuries) All Regions (1988-1992),

ACCNO	CLASS/ACC	CLASS/PLACE	TIME	CAUSE	OCCUPATION	ACTIVITY
89S0217I	Driver, Belts, Chains (other)	Conveyer Road (UG)	11:30	Failure To Comply With Standards	Conveyer Belt Attendant	Unreliable Data (Acc. before 1/7/90)
88N0250I	Drives, Belts & Chains (Chain)	Conveyer Loading Point	9:30	Failure To Comply With Standards	Tip Assistant/Attendant	Unreliable Data (Acc. before 1/7/90)
92E0109I	Drives, Belts & Chains (Chain)	Longwall	9:45	Failure To Comply With Standards	Plant Operator	Standing
92E0045I	Endless Rope Haulage	Conveyer Loading Point	17:20	Failure To Comply With Standards	Machine Operator	Moving objects
88R0119I	Endless Rope Haulage	Haulage (inc. Endless Rope)	10:30	Failure To Comply With Instructions	Mine Labourer	Unreliable Data (Acc. before 1/7/90)
88R0121I	Endless Rope Haulage	Haulage (inc. Endless Rope)	11:30	Failure To Comply With Instructions	Mine Labourer	Unreliable Data (Acc. before 1/7/90)
88R0330I	Endless Rope Haulage	Haulage (inc. Endless Rope)	7:30	Failure To Comply With Standards	Track Layer	Unreliable Data (Acc. before 1/7/90)
88R0335I	Endless Rope Haulage	Haulage (inc. Endless Rope)	7:30	Failure To Comply With Standards	Labourer	Unreliable Data (Acc. before 1/7/90)
88N0108I	Endless Rope Haulage	Haulage (inc. Endless Rope)	7:30	Failure To Comply With Standards	Haulage Attendant	Unreliable Data (Acc. before 1/7/90)
88R0292I	Endless Rope Haulage	Haulage (inc. Endless Rope)	10:30	Inadequate Exam/Inspt./Test	Lasher	Unreliable Data (Acc. before 1/7/90)
89R0002I	Endless Rope Haulage	Haulage (inc. Endless Rope)	13:30	Inadequate Preventative Maintenance	Haulage Attendant	Unreliable Data (Acc. before 1/7/90)
90R0121I	Endless Rope Haulage	Haulage (inc. Endless Rope)	10:30	Lack of Caution / Alertness	Lasher	Tramming
88R0026I	Endless Rope Haulage	Haulage (inc. Endless Rope)	5:30	Lack of Caution / Alertness	General Labourer	Unreliable Data (Acc. before 1/7/90)
90R0085I	Endless Rope Haulage	Haulage (inc. Endless Rope)	6:30	Lack of Caution / Alertness	Pipes & Tracks	Laying
89R0099I	Endless Rope Haulage	Haulage (inc. Endless Rope)	8:30	Lack of Caution / Alertness	Hooveron	Unreliable Data (Acc. before 1/7/90)
90R0171I	Endless Rope Haulage	Haulage (inc. Endless Rope)	9:30	Lack of Caution / Alertness	Lasher	Tramming
88R0120I	Endless Rope Haulage	Haulage (inc. Endless Rope)	12:30	Lack of Clearance (Obstruction)	Mine Labourer	Unreliable Data (Acc. before 1/7/90)
88R0059I	Endless Rope Haulage	Haulage (inc. Endless Rope)	22:30	Lack of Clearance (Obstruction)	Lasher	Unreliable Data (Acc. before 1/7/90)
90R0148I	Endless Rope Haulage	Other Location	13:30	Lack of Adequate/ Suitable Training	Haulage Attendant	Pushing
89R0234I	Front End Loader	Bord & Pillar (Face)	17:30	Failure To Comply With Standards	General Labourer	Suspending / Hanging
91S0123I	Front End Loader	Bord & Pillar (Face)	18:30	Failure To Comply With Standards	Team Leader	Standing
92E0174I	Front End Loader	Bord & Pillar (Face)	17:15	Failure to use Safety Device/Eq./Syst	Labourer	Connect Equip/Mach/Hoses
88T0826I	Front End Loader	Bord & Pillar (Face)	22:30	Failure to use Safety Device/Eq./Syst	Fitter & Turner	Unreliable Data (Acc. before 1/7/90)
88N0155I	Front End Loader	Bord & Pillar (Face)	16:30	Lack of (or Inad. Std./Proc.)	Machine Operator	Unreliable Data (Acc. before 1/7/90)
89S0089I	Front End Loader	Bord & Pillar (Face)	8:30	Lack of (or Unsuitable) System/Facilities	U/G Official	Unreliable Data (Acc. before 1/7/90)
92F0456I	Front End Loader	Bord & Pillar (Face)	7:10	Lack of Clearance (Obstruction)	General Labourer	Suspending / Hanging
89S0244I	Front End Loader	Bord & Pillar (Face)	2:30	Lack of illumination/ Visibility	Front End Loader Driver	Unreliable Data (Acc. before 1/7/90)
90R0198I	Front End Loader	Haul Road (UG)	17:30	Lack of Caution / Alertness	Fitter & Turner	Tramming
90T0297I	Front End Loader	Inclined Shaft	10:30	Inadequate Supervision/Discipline	Team Leader	Moving Self
90T0297I	Front End Loader	Inclined Shaft	10:30	Inadequate Supervision/Discipline	Team Leader	Moving (Self)
89S0081I	Front End Loader	Longwall	22:30	Lack of Clearance (Obstruction)	Front End Loader Driver	Unreliable Data (Acc. before 1/7/90)
89R0032I	Front End Loader	Other workshop (not repair bay)	18:30	Failure To Comply With Standards	Mine Labourer	Unreliable Data (Acc. before 1/7/90)
90S0075I	Front End Loader	Roadway (UG)	10:30	Failure To Comply With Standards	Machine Operator	Operate/Drive T-Less Vehicle
88S0060I	Front End Loader	Roadway (UG)	13:30	Failure To Comply With Standards	General Labourer	Unreliable Data (Acc. before 1/7/90)
88S0159I	Front End Loader	Roadway (UG)	0:30	Inadequate/Lack of Fencing/Equip	Fitter Aide	Unreliable Data (Acc. before 1/7/90)
90R0146I	Front End Loader	Roadway (UG)	17:30	Lack of Clearance (Obstruction)	Machine Operator	Operate/Drive T-Less Vehicle
91S0122I	Front End Loader	Store or Store Yard	13:30	Failure To Comply With Standards	General Labourer	Loading / Offloading
92E0111I	Front End Loader	Sub-Station	14:50	Failure To Comply With Standards	General Labourer	Standing
88S0103I	Front End Loader	Traveling Way (excl. Shafts)	15:30	Failure To Comply With Instructions	Bricklayer	Unreliable Data (Acc. before 1/7/90)
94H1230I	Front End Loader	Traveling Way (Excl. Shafts)	11:00	Failure To Comply With Standards	Boiler Maker	Ride (Pass/Guard)/ T-Less Vehicle
90S0088I	Front End Loader	Traveling Way (excl. Shafts)	13:30	Failure to use Safety Device/Eq./Syst	Fitter	Connecting Vehicles

Underground Coal Accident Data (Injuries) All Regions (1988-1992)

ACCNO	CLASS/ACC	CLASS/PLACE	TIME	CAUSE	OCCUPATION	ACTIVITY	
						B	C
90S0133I	Front End Loader	Traveling Way (excl. Shafts)	9:30	Lack of Clearance (Obstruction)	Front End Loader Driver	Operate/Drive T Less Vehicle	
92H2706I	Front End Loader	Vehicle Maintenance (U/G)	14:50	Failure To Comply With Standards	Artisan Helper	Bleeding (Fuel Line)	
89R0193I	Gathering Arm Loader	Bord & Pillar (Face)	7:30	Failure To Comply With Instructions	Machine Operator	Unreliable Data (Acc. before 1/7/90)	
91T0347I	Gathering Arm Loader	Bord & Pillar (Face)	11:30	Failure To Comply With Standards	General Labourer	Check (Not Eq/Mach/Vehicle)	
89N0224I	Gathering Arm Loader	Bord & Pillar (Face)	14:30	Failure To Comply With Standards	Gathering Arm Loader Driver/Crew	Unreliable Data (Acc. before 1/7/90)	
88N0272I	Gathering Arm Loader	Bord & Pillar (Face)	16:30	Failure To Comply With Standards	Gathering Arm Loader Driver/Crew	Unreliable Data (Acc. before 1/7/90)	
89N0161I	Gathering Arm Loader	Bord & Pillar (Face)	17:30	Failure To Comply With Standards	Labourer	Unreliable Data (Acc. before 1/7/90)	
90N0166I	Gathering Arm Loader	Bord & Pillar (Face)	18:30	Failure To Comply With Standards	Gathering Arm Loader Driver/Crew	Guiding	
90N0191I	Gathering Arm Loader	Bord & Pillar (Face)	20:30	Failure To Comply With Standards	Miners Assistant	Walking / Traveling by Foot	
90S0170I	Gathering Arm Loader	Bord & Pillar (Face)	5:30	Failure To Comply With Standards	Gathering Arm Loader Driver/Crew	Sitting	
90N0295I	Gathering Arm Loader	Bord & Pillar (Face)	6:30	Failure To Comply With Standards	Patrol Filling Station/Garage Attend	Operate/Drive Tr. Bound Vehicle	
89R0004I	Gathering Arm Loader	Bord & Pillar (Face)	8:30	Failure To Comply With Standards	Miners Assistant	Unreliable Data (Acc. before 1/7/90)	
89R0003I	Gathering Arm Loader	Bord & Pillar (Face)	7:30	Failure to use Safety Device/Eq./Syst	S.C./LHD/Scop Driver/Crew	Unreliable Data (Acc. before 1/7/90)	
89R0194I	Gathering Arm Loader	Bord & Pillar (Face)	22:30	Inadequate Exam/Inspr./Test	Fitter Aide	Unreliable Data (Acc. before 1/7/90)	
88R0093I	Gathering Arm Loader	Bord & Pillar (Face)	9:30	Inadequate Supervision/Discipline	Machine Operator	Unreliable Data (Acc. before 1/7/90)	
89N0282I	Gathering Arm Loader	Bord & Pillar (Face)	9:30	Lack of (or Inad. Std /Proc.)	Artisan Helper	Unreliable Data (Acc. before 1/7/90)	
90N0323I	Gathering Arm Loader	Bord & Pillar (Face)	12:30	Lack of (or Unsuitable) System/Facilities	Team Leader	Connecting Vehicles	
91N0297I	Gathering Arm Loader	Bord & Pillar (Face)	17:30	Lack of (or Unsuitable) System/Facilities	S.C./LHD/Scop Driver/Crew	Standing	
89S0216I	Gathering Arm Loader	Bord & Pillar (Face)	10:30	Lack of Adequate/ Suitable Training	Gathering Arm Loader Driver/Crew	Unreliable Data (Acc. before 1/7/90)	
89S0037I	Gathering Arm Loader	Bord & Pillar (Face)	23:30	Lack of Adequate/ Suitable Training	Gathering Arm Loader Driver/Crew	Unreliable Data (Acc. before 1/7/90)	
91N0260I	Gathering Arm Loader	Bord & Pillar (Face)	18:30	Lack of Caution / Alertness	Diller	Walking / Traveling by Foot	
92F0266I	Gathering Arm Loader	Bord & Pillar (Face)	23:00	Lack of Caution / Alertness	Gathering Arm Loader Driver/Crew	Handling	
91R0148I	Gathering Arm Loader	Bord & Pillar (Face)	9:30	Lack of Caution / Alertness	Boeseman/Rocker Arm Shovel Driver	Transporting	
88R0060I	Gathering Arm Loader	Bord & Pillar (Face)	19:30	Lack of Clearance (Obstruction)	Engine Driver	Unreliable Data (Acc. before 1/7/90)	
88N0161I	Gathering Arm Loader	Bord & Pillar (Face)	16:30	Use of Unsuitable Equip/Material/Facilities	Gathering Arm Loader Driver/Crew	Unreliable Data (Acc. before 1/7/90)	
89N0098I	Gathering Arm Loader	Roadway (UG)	23:30	Lack of (or Inad. Std /Proc.)	Engine Driver	Unreliable Data (Acc. before 1/7/90)	
88N0097I	Gathering Arm Loader	Roadway (UG)	10:30	Lack of Caution / Alertness	Mine Labourer	Unreliable Data (Acc. before 1/7/90)	
88R0287I	Hand Trammed	Bord & Pillar (Face)	10:30	Failure To Comply With Instructions	Lasher	Unreliable Data (Acc. before 1/7/90)	
88R0128I	Hand Trammed	Bord & Pillar (Face)	11:30	Failure To Comply With Instructions	Labourer	Unreliable Data (Acc. before 1/7/90)	
88R0129I	Hand Trammed	Bord & Pillar (Face)	12:30	Failure To Comply With Instructions	Labourer	Unreliable Data (Acc. before 1/7/90)	
88R0258I	Hand Trammed	Bord & Pillar (Face)	12:30	Failure To Comply With Instructions	Lasher	Unreliable Data (Acc. before 1/7/90)	
88R0039I	Hand Trammed	Bord & Pillar (Face)	10:30	Failure To Comply With Standards	Lasher	Unreliable Data (Acc. before 1/7/90)	
88R0291I	Hand Trammed	Bord & Pillar (Face)	11:30	Failure To Comply With Standards	Lasher	Unreliable Data (Acc. before 1/7/90)	
92E0063I	Hand Trammed	Bord & Pillar (Face)	12:00	Failure To Comply With Standards	Lasher	Pushing	
92E0155I	Hand Trammed	Bord & Pillar (Face)	12:45	Failure To Comply With Standards	Labourer	Tramming	
92E0094I	Hand Trammed	Bord & Pillar (Face)	13:00	Failure To Comply With Standards	Lasher	Pulling	
88R0022I	Hand Trammed	Bord & Pillar (Face)	13:30	Failure To Comply With Standards	Lasher	Unreliable Data (Acc. before 1/7/90)	
92E0116I	Hand Trammed	Bord & Pillar (Face)	15:00	Failure To Comply With Standards	Lasher	Raising/Lift/Lower by Hand	
92E0147I	Hand Trammed	Bord & Pillar (Face)	15:00	Failure To Comply With Standards	Lasher	Rerailing	
89R0169I	Hand Trammed	Bord & Pillar (Face)	16:30	Failure To Comply With Standards	Lasher	Unreliable Data (Acc. before 1/7/90)	
91R0096I	Hand Trammed	Bord & Pillar (Face)	18:30	Failure To Comply With Standards	Lasher	Rerailing	

Underground Coal Accident Data (Injuries) All Regions (1988-1992)

					OCCUPATION	
ACCNO	CLASS/ACC	CLASS/PLACE	TIME	CAUSE		ACTIVITY
92E0056I	Hand Trammed	Bord & Pillar (Face)	21:00	Failure To Comply With Standards	Lasher	Changing Equip/Material
92E0067I	Hand Trammed	Bord & Pillar (Face)	21:00	Failure To Comply With Standards	Lasher	Pushing
92E0066I	Hand Trammed	Bord & Pillar (Face)	22:00	Failure To Comply With Standards	Pipes & Tracks	Raising/Lift/Lower by Hand
90R0059I	Hand Trammed	Bord & Pillar (Face)	22:30	Failure To Comply With Standards	Lasher	Unreliable Data (Acc. before 1/7/90)
89R0124I	Hand Trammed	Bord & Pillar (Face)	7:30	Failure To Comply With Standards	Lasher	Unreliable Data (Acc. before 1/7/90)
88R0037I	Hand Trammed	Bord & Pillar (Face)	9:30	Failure To Comply With Standards	Lasher	Unreliable Data (Acc. before 1/7/90)
88R0209I	Hand Trammed	Bord & Pillar (Face)	10:30	Failure to use Safety Device/Eq/Syst	Trammer	Unreliable Data (Acc. before 1/7/90)
88R0241I	Hand Trammed	Bord & Pillar (Face)	13:30	Failure to use Safety Device/Eq/Syst	Lasher	Pushing
92E0124I	Hand Trammed	Bord & Pillar (Face)	19:00	Failure to use Safety Device/Eq/Syst	Coal Cutter Driver/crew	Suspending / Hanging
88R0158I	Hand Trammed	Bord & Pillar (Face)	6:30	Failure to use Safety Device/Eq/Syst	Rail Worker	Unreliable Data (Acc. before 1/7/90)
88R0196I	Hand Trammed	Bord & Pillar (Face)	7:30	Failure to use Safety Device/Eq/Syst	Lasher	Unreliable Data (Acc. before 1/7/90)
89R0139I	Hand Trammed	Bord & Pillar (Face)	8:30	Inadequate Supervision/Discipline	Lasher	Unreliable Data (Acc. before 1/7/90)
91R0131I	Hand Trammed	Bord & Pillar (Face)	13:30	Lack of Adequate/ Suitable Training	Lasher	Railing
88R0286I	Hand Trammed	Bord & Pillar (Face)	10:30	Lack of Caution / Alertness	Lasher	Unreliable Data (Acc. before 1/7/90)
88R0020I	Hand Trammed	Bord & Pillar (Face)	11:30	Lack of Caution / Alertness	Timberman	Unreliable Data (Acc. before 1/7/90)
92E0190I	Hand Trammed	Bord & Pillar (Face)	14:00	Lack of Caution / Alertness	Trammer	Pushing
90R0041I	Hand Trammed	Bord & Pillar (Face)	16:30	Lack of Caution / Alertness	Lasher	Unreliable Data (Acc. before 1/7/90)
90R0117I	Hand Trammed	Bord & Pillar (Face)	20:30	Lack of Caution / Alertness	Lasher	Tipping
89R0152I	Hand Trammed	Bord & Pillar (Face)	21:30	Lack of Caution / Alertness	Mine Labourer	Unreliable Data (Acc. before 1/7/90)
91R0233I	Hand Trammed	Bord & Pillar (Face)	22:30	Lack of Caution / Alertness	Lasher	Raising/Lift/Lower by Hand
88R0019I	Hand Trammed	Bord & Pillar (Face)	9:30	Lack of Caution / Alertness	Lasher	Unreliable Data (Acc. before 1/7/90)
91R0173I	Hand Trammed	Bord & Pillar (Face)	12:30	Lack of Clearance (Obstruction)	Lasher	Pushing
88R0027I	Hand Trammed	Bord & Pillar (Face)	21:30	Lack of Clearance (Obstruction)	Lasher	Unreliable Data (Acc. before 1/7/90)
89R0042I	Hand Trammed	Bord & Pillar (Face)	6:30	Lack of Clearance (Obstruction)	Lasher	Unreliable Data (Acc. before 1/7/90)
88R0156I	Hand Trammed	Bord & Pillar (Face)	7:30	Lack of Clearance (Obstruction)	Labourer	Unreliable Data (Acc. before 1/7/90)
88R0042I	Hand Trammed	Bord & Pillar (Face)	8:30	Lack of Clearance (Obstruction)	Lasher	Unreliable Data (Acc. before 1/7/90)
88R0285I	Hand Trammed	Bord & Pillar (Face)	8:30	Lack of Clearance (Obstruction)	Lasher	Unreliable Data (Acc. before 1/7/90)
90R0206I	Hand Trammed	Bord & Pillar (Face)	9:30	Lack of Clearance (Obstruction)	Lasher	Tramming
88R0130I	Hand Trammed	Bord & Pillar (Face)	12:30	Use of Unsuitable Equip/Material/Facilities	Labourer	Unreliable Data (Acc. before 1/7/90)
88R0036I	Hand Trammed	Bord & Pillar (Face)	7:30	Use of Unsuitable Equip/Material/Facilities	Lasher	Unreliable Data (Acc. before 1/7/90)
88R0282I	Hand Trammed	Bord & Pillar (Face)	8:30	Use of Unsuitable Equip/Material/Facilities	Coal Cutter Driver/crew	Unreliable Data (Acc. before 1/7/90)
88R0255I	Hand Trammed	Bord & Pillar (Face)	9:30	Use of Unsuitable Equip/Material/Facilities	Rock Drill Machine Crew	Unreliable Data (Acc. before 1/7/90)
92E0025I	Hand Trammed	Conveyer Loading Point	14:00	Lack of Caution / Alertness	Lasher	Tramming
91R0159I	Hand Trammed	Conveyer Road (UG)	0:30	Failure To Comply With Standards	Lasher	Unreliable Data (Acc. before 1/7/90)
88R0141I	Hand Trammed	Haulage (inc. Endless Rope)	8:30	Failure To Comply With Instructions	Labourer	Install (Not Supp/Barr/Wall/Eq/Mach)
92E0088I	Hand Trammed	Haulage (inc. Endless Rope)	11:00	Failure To Comply With Standards	General Labourer	Unreliable Data (Acc. before 1/7/90)
88R0271I	Hand Trammed	Haulage (inc. Endless Rope)	11:30	Failure To Comply With Standards	Haulage Trammer	Unreliable Data (Acc. before 1/7/90)
88R0074I	Hand Trammed	Haulage (inc. Endless Rope)	12:30	Failure To Comply With Standards	Lasher	Unreliable Data (Acc. before 1/7/90)
88R0270I	Hand Trammed	Haulage (inc. Endless Rope)	8:30	Failure To Comply With Standards	Haulage Trammer	Unreliable Data (Acc. before 1/7/90)
91R0041I	Hand Trammed	Haulage (inc. Endless Rope)	9:30	Failure To Comply With Standards	Lasher	Tramming
88R0085I	Hand Trammed	Haulage (inc. Endless Rope)	10:30	Failure to use Safety Device/Eq/Syst	Lasher	Unreliable Data (Acc. before 1/7/90)

Underground Coal Accident Data (Injuries) All Regions (1988-1992)

ACCNO	CLASSACC	CLASSPLACE	TIME	CAUSE	OCCUPATION	ACTIVITY
88R0080I	Hand Trammed	Haulage (inc. Endless Rope)	10:30	Failure to use Safety Device/Eq/Syst	Mine Labourer	Unreliable Data (Acc. before 1/7/90)
89R0125I	Hand Trammed	Haulage (inc. Endless Rope)	11:30	Failure to use Safety Device/Eq/Syst	Lasher	Unreliable Data (Acc. before 1/7/90)
88R0086I	Hand Trammed	Haulage (inc. Endless Rope)	7:30	Failure to use Safety Device/Eq/Syst	Mine Labourer	Unreliable Data (Acc. before 1/7/90)
89R0142I	Hand Trammed	Haulage (inc. Endless Rope)	13:30	Inadequate Supervision/Discipline	Haulage Attendant	Unreliable Data (Acc. before 1/7/90)
88R0095I	Hand Trammed	Haulage (inc. Endless Rope)	7:30	Inadequate Supervision/Discipline	Labourer	Unreliable Data (Acc. before 1/7/90)
89R0166I	Hand Trammed	Haulage (inc. Endless Rope)	6:30	Lack of Caution / Alertness	Lasher	Unreliable Data (Acc. before 1/7/90)
88R0082I	Hand Trammed	Haulage (inc. Endless Rope)	7:30	Lack of Caution / Alertness	Tip Assistant/Attendant	Unreliable Data (Acc. before 1/7/90)
88R0043I	Hand Trammed	Haulage (inc. Endless Rope)	10:30	Lack of Clearance (Obstruction)	Timberman	Unreliable Data (Acc. before 1/7/90)
88R0177I	Hand Trammed	Haulage (inc. Endless Rope)	10:30	Lack of Clearance (Obstruction)	Labourer	Unreliable Data (Acc. before 1/7/90)
88R0138I	Hand Trammed	Haulage (inc. Endless Rope)	12:30	Lack of Clearance (Obstruction)	Labourer	Unreliable Data (Acc. before 1/7/90)
88R0139I	Hand Trammed	Haulage (inc. Endless Rope)	8:30	Lack of Clearance (Obstruction)	Labourer	Unreliable Data (Acc. before 1/7/90)
88R0211I	Hand Trammed	Haulage (inc. Endless Rope)	9:30	Lack of Clearance (Obstruction)	Driller	Unreliable Data (Acc. before 1/7/90)
88R0140I	Hand Trammed	Haulage (inc. Endless Rope)	12:30	Use of Unsuitable Equip/Material/Facilities	Labourer	Unreliable Data (Acc. before 1/7/90)
91R0232I	Hand Trammed	Loading Box (excl. Shaft)	23:30	Failure To Comply With Standards	Lasher	Tramming
90R0025I	Hand Trammed	Other Location	23:30	Failure To Comply With Standards	Lasher	Unreliable Data (Acc. before 1/7/90)
91R0125I	Hand Trammed	Other Location	7:30	Failure To Comply With Standards	Lasher	Tipping
88R0263I	Hand Trammed	Other Location	9:30	Failure To Comply With Standards	Lasher	Unreliable Data (Acc. before 1/7/90)
88R0269I	Hand Trammed	Other Location	9:30	Failure To Comply With Standards	Haulage Trammer	Unreliable Data (Acc. before 1/7/90)
91R0191I	Hand Trammed	Roadway (UG)	2:30	Failure To Comply With Standards	Lasher	Tramming
88R0005I	Hand Trammed	Roadway (UG)	20:30	Failure To Comply With Standards	Lasher	Unreliable Data (Acc. before 1/7/90)
88R0325I	Hand Trammed	Roadway (UG)	7:30	Failure To Comply With Standards	TrammerH	Unreliable Data (Acc. before 1/7/90)
88R0342I	Hand Trammed	Roadway (UG)	9:30	Failure To Comply With Standards	Lasher	Unreliable Data (Acc. before 1/7/90)
92E0202I	Hand Trammed	Roadway (UG)	2:45	Lack of Caution / Alertness	Rail Worker	Pulling
90N0116I	Hand Trammed	Traveling Way (excl. Shafts)	6:30	Failure To Comply With Standards	Machine Operator	Sitting
90R0124I	Hand Trammed	Vertical Shaft Station	1:30	Failure To Comply With Instructions	Mine Labourer	Standing
90R0123I	Hand Trammed	Vertical Shaft Station	8:30	Failure To Comply With Standards	Lasher	Barring
90X0179I	Haul Truck	Other Location	20:30	Failure To Comply With Instructions	Fitter	Jumping
89N0383I	Hydraulic Drill Rig	Bord & Pillar (Face)	11:30	Failure To Comply With Standards	Artisan Helper	Unreliable Data (Acc. before 1/7/90)
90N0245I	Hydraulic Drill Rig	Bord & Pillar (Face)	11:30	Failure To Comply With Standards	Miner	Drilling (Mechanical)
92F0076I	Hydraulic Drill Rig	Bord & Pillar (Face)	11:50	Failure To Comply With Standards	General Labourer	Install Supp/Barr/S/Wall
90N0072I	Hydraulic Drill Rig	Bord & Pillar (Face)	17:30	Failure To Comply With Standards	Driller	Unreliable Data (Acc. before 1/7/90)
92H0256I	Hydraulic Drill Rig	Bord & Pillar (Face)	19:40	Failure To Comply With Standards	Drill Sharpener	Standing
91N0196I	Hydraulic Drill Rig	Bord & Pillar (Face)	22:30	Failure To Comply With Standards	Labourer	Handling
89N0257I	Hydraulic Drill Rig	Bord & Pillar (Face)	7:30	Failure To Comply With Standards	Mine Labourer	Unreliable Data (Acc. before 1/7/90)
91S0135I	Hydraulic Drill Rig	Bord & Pillar (Face)	9:30	Failure To Comply With Standards	Machine Operator	Walking / Traveling by Foot
92F0372I	Hydraulic Drill Rig	Bord & Pillar (Face)	19:45	Lack of (or Inad. Std./Proc.)	Fitter	Holding
91X0055I	Hydraulic Drill Rig	Bord & Pillar (Face)	09:30	Lack of Caution / Alertness	Team Leader	Supervising
91N0150I	Hydraulic Drill Rig	Bord & Pillar (Face)	19:30	Lack of Caution / Alertness	Miner	Climb (Not Excav/Struct/Mach/l adder)
89S0087I	L.D.V (U/G)	Roadway (UG)	1:30	Lack of Caution / Alertness	Lorry Driver	Unreliable Data (Acc. before 1/7/90)
89N0209I	Load Hall Dumper	Bord & Pillar (Face)	20:30	Failure To Comply With Instructions	Labourer	Unreliable Data (Acc. before 1/7/90)
91S0043I	Load Hall Dumper	Bord & Pillar (Face)	1:30	Failure To Comply With Standards	Machine Operator	Operate/Drive T Less Vehicle

Underground Coal Accident Data (Injuries) All Regions (1988-1992)

ACCNO	CLASS/ACC	CLASS/PLACE	TIME	CAUSE	OCCUPATION	ACTIVITY
92E0103I	Load Hall Dumper	Bord & Pillar (Face)	10:00	Failure To Comply With Standards	Conveyer Belt Attendant	Suspending / Hanging
91R0023I	Load Hall Dumper	Bord & Pillar (Face)	14:30	Failure To Comply With Standards	Front End Loader Driver	Tightening
90N0147I	Load Hall Dumper	Bord & Pillar (Face)	17:30	Failure To Comply With Standards	Tractor Driver	Connecting Vehicles
92F0019I	Load Hall Dumper	Bord & Pillar (Face)	19:15	Failure To Comply With Standards	Electro Mechanic/Millwright	Standing
90R0088I	Load Hall Dumper	Bord & Pillar (Face)	22:30	Failure To Comply With Standards	Fitter	Repair/Serv./Maintain
91R0110I	Load Hall Dumper	Bord & Pillar (Face)	4:30	Failure To Comply With Standards	Machine Greaser/oiler	Tightening
91S0003I	Load Hall Dumper	Bord & Pillar (Face)	4:30	Failure To Comply With Standards	S.C./LHD/Scoop Driver/Crew	Remove Not Supp/Equip/Mach
91N0105I	Load Hall Dumper	Bord & Pillar (Face)	8:30	Failure To Comply With Standards	Labourer	Standing
92E0058I	Load Hall Dumper	Bord & Pillar (Face)	9:30	Failure To Comply With Standards	Machine Operator	Operate/Drive T.Less Vehicle
92E0119I	Load Hall Dumper	Bord & Pillar (Face)	18:00	Failure to use Safety Device/Eq/Syst	S.C./LHD/Scoop Driver/Crew	Adjusting Equip/Mach
89N0371I	Load Hall Dumper	Bord & Pillar (Face)	10:30	Lack of Caution / Alertness	Bricklayer	Unreliable Data (Acc. before 1/7/90)
91N0330I	Load Hall Dumper	Bord & Pillar (Face)	11:30	Lack of Caution / Alertness	Fitter Aide	Walking / Traveling by Foot
88R0185I	Load Hall Dumper	Bord & Pillar (Face)	14:30	Lack of Caution / Alertness	Drilling Contractor	Unreliable Data (Acc. before 1/7/90)
91R0094I	Load Hall Dumper	Bord & Pillar (Face)	9:30	Lack of Caution / Alertness	Coal Cutter Driver/crew	Operate Equip/Mach/Tools
89R0075I	Load Hall Dumper	Bord & Pillar (Face)	0:30	Lack of Clearance (Obstruction)	Artisan Helper	Unreliable Data (Acc. before 1/7/90)
88N0053I	Load Hall Dumper	Bord & Pillar (Face)	10:30	Lack of Clearance (Obstruction)	Tractor Driver	Unreliable Data (Acc. before 1/7/90)
88R0160I	Load Hall Dumper	Bord & Pillar (Face)	12:30	Lack of illumination/ Visibility	Machine Attendant/Minder	Unreliable Data (Acc. before 1/7/90)
91R0048I	Load Hall Dumper	Conveyer Loading Point	3:30	Lack of Caution / Alertness	Lasher	Open/Close Door
88R0268I	Load Hall Dumper	Conveyer Loading Point	8:30	Lack of Caution / Alertness	Tip Assistant/Attendant	Unreliable Data (Acc. before 1/7/90)
90R0035I	Load Hall Dumper	Conveyer Loading Point	8:30	Use of Unsuitable Equip/Material/Facilities	Front End Loader Driver	Unreliable Data (Acc. before 1/7/90)
91R0080I	Load Hall Dumper	Conveyer Road (UG)	8:30	Failure To Comply With Standards	General Labourer	Filling
89N0109I	Load Hall Dumper	Conveyer Road (UG)	15:30	Lack of (or Inad. Std./Proc.)	Team Leader	Unreliable Data (Acc. before 1/7/90)
89R0135I	Load Hall Dumper	Inclined Shaft	14:30	Failure To Comply With Instructions	Driller	Unreliable Data (Acc. before 1/7/90)
90N0145I	Load Hall Dumper	Inclined Shaft	20:30	Lack of illumination/ Visibility	Team Leader	Standing
91R0229I	Load Hall Dumper	Other Location	19:30	Lack of Caution / Alertness	S.C./LHD/Scoop Driver/Crew	Pulling
88R0170I	Load Hall Dumper	Other Location	20:30	Lack of Clearance (Obstruction)	S.C./LHD/Scoop Driver/Crew	Unreliable Data (Acc. before 1/7/90)
89N0220I	Load Hall Dumper	Roadway (UG)	17:30	Failure To Comply With Standards	Mine Labourer	Operate/Drive T. Bound Vehicle
89R0236I	Load Hall Dumper	Roadway (UG)	18:30	Failure To Comply With Standards	Continuous Miner Driver	Unreliable Data (Acc. before 1/7/90)
90R0005I	Load Hall Dumper	Roadway (UG)	17:30	Inadequate Exam/Insp./Test	Driver	Unreliable Data (Acc. before 1/7/90)
89R0048I	Load Hall Dumper	Roadway (UG)	10:30	Inadequate Supervision/Discipline	Engine Driver	Unreliable Data (Acc. before 1/7/90)
91R0011I	Load Hall Dumper	Roadway (UG)	23:30	Lack of Clearance (Obstruction)	S.C./LHD/Scoop Driver/Crew	Operate/Drive T. Less Vehicle
88R0306I	Load Hall Dumper	Roadway (UG)	12:30	Use of Unsuitable Equip/Material/Facilities	Team Leader	Unreliable Data (Acc. before 1/7/90)
90S0077I	Load Hall Dumper	Traveling Way (excl. Shafts)	18:30	Failure To Comply With Standards	Team Leader	Operate/Drive T. Less Vehicle
90N0064I	Load Hall Dumper	Traveling Way (excl. Shafts)	9:30	Failure To Comply With Standards	Machine Operator	Unreliable Data (Acc. before 1/7/90)
92E0044I	Load Hall Dumper	Traveling Way (excl. Shafts)	7:50	Lack of Clearance (Obstruction)	Labourer	Standing
90R0195I	Load Hall Dumper	Vehicle Maintenance (UG)	8:30	Failure To Comply With Standards	Electrician Aide	Operate/Drive T. Less Vehicle
92F0160I	Loc. Drawn Vehicle (Hopper)	Crosscut/Drain Point Crosscut	5:30	Failure To Comply With Standards	Tractor Driver	Operate/Drive T. Less Vehicle
91R0038I	Locomotive (Battery)	Other Location	0:30	Failure To Comply With Standards	General Labourer	Holding
89S0010I	Motor Cycle	Roadway (UG)	6:30	Failure To Comply With Standards	Buss Driver	Unreliable Data (Acc. before 1/7/90)
92F0164I	Other Lifting Machines (specify)	Bord & Pillar (Face)	12:45	Lack of (or Inad. Std./Proc.)	Team Leader	Installing Equip/Machinery
92E0154I	Other Lifting Machines (specify)	Conveyer Loading Point	20:30	Failure To Comply With Standards	Fitter Aide	Raising/Lift/Lower with Mach

Underground Coal Accident Data (Injuries) All Regions (1988-1992)						
ACCNO	CLASSACC	CLASSPLACE	TIME	CAUSE	OCCUPATION	ACTIVITY
89S0269I	Other Lifting Machines (specify)	Conveyer Road (UG)	19:30	Failure To Comply With Instructions	General Labourer	Unreliable Data (Acc. before 1/7/90)
90N0334I	Other Mach.(Not Included in T&M)	Boilermaking / Welding Shop	9:30	Failure To Comply With Standards	Mechanic Aide	Grinding
92F0041I	Other Mach.(Not Included in T&M)	Boilermaking / Welding Shop	9:45	Failure To Comply With Standards	Boilermaker Aide	Clean Equip/Machinery
89N0174I	Other Mach.(Not Included in T&M)	Bord & Pillar (Face)	10:30	Failure To Comply With Standards	Miners Assistant	Unreliable Data (Acc. before 1/7/90)
91N0077I	Other Mach.(Not Included in T&M)	Bord & Pillar (Face)	12:30	Failure To Comply With Standards	Labourer	Drilling (Hydraulic)
89S0027I	Other Mach.(Not Included in T&M)	Bord & Pillar (Face)	2:30	Failure To Comply With Standards	Mobile R.B. Mach. Operator	Unreliable Data (Acc. before 1/7/90)
90S0112I	Other Mach.(Not Included in T&M)	Conveyer Loading Point	11:30	Failure To Comply With Standards	Artisan Helper	Changing Equip/Material
90S0155I	Other Mach.(Not Included in T&M)	Conveyer Loading Point	16:30	Failure To Comply With Standards	Construction Worker (U/G)	Standing
88S0152I	Other Mach.(Not Included in T&M)	Conveyer Loading Point	0:30	Lack of Caution / Alertness	Mine Labourer	Unreliable Data (Acc. before 1/7/90)
88S0197I	Other Mach.(Not Included in T&M)	Conveyer Road (UG)	22:30	Failure To Comply With Standards	Machine Operator	Unreliable Data (Acc. before 1/7/90)
90N0099I	Other Mach.(Not Included in T&M)	Fitting Shop (fitting/turning)	10:30	Failure To Comply With Standards	Fitter Aide	Unreliable Data (Acc. before 1/7/90)
90T0443I	Other Mach.(Not Included in T&M)	Inclined Shaft	10:30	Lack of Caution / Alertness	Fitter Aide	Loosening
88S0165I	Other Mach.(Not Included in T&M)	Longwall	1:30	Lack of Caution / Alertness	Fitter Aide	Unreliable Data (Acc. before 1/7/90)
90S0120I	Other Mach.(Not Included in T&M)	Longwall	13:30	Lack of Caution / Alertness	General Labourer	Connect Equip/Mach/Hoses
90S0123I	Other Mach.(Not Included in T&M)	Longwall	22:30	Lack of Caution / Alertness	Mine Shift Boss	Operate Equip/Mach/Tools
89S0240I	Other Mach.(Not Included in T&M)	Longwall	1:30	Use of Unsuitable Equip/Material/Facilities	L.Wall Shearer Operator/Crew	Unreliable Data (Acc. before 1/7/90)
89S0101I	Other Mach.(Not Included in T&M)	Roadway (UG)	9:30	Failure to Supply Safety Dev/Equip/Syst	General Labourer	Unreliable Data (Acc. before 1/7/90)
89S0073I	Other Mach.(Not Included in T&M)	Traveling Way (excl. Shafts)	10:30	Lack of Clearance (Obstruction)	Fitter Aide	Unreliable Data (Acc. before 1/7/90)
89S0044I	Other Mach.(Not Included in T&M)	Vehicle Maintenance (U/G)	12:30	Use of Unsuitable Equip/Material/Facilities	Labourer	Unreliable Data (Acc. before 1/7/90)
89T0714I	Other Machinery	Bord & Pillar (Face)	13:30	Failure To Comply With Standards	Team Leader	Unreliable Data (Acc. before 1/7/90)
92E0191I	Other Machinery (Not Included in T&M)	Bord & Pillar (Face)	10:30	Failure To Comply With Standards	Driller	Sitting
90R0153I	Other Machinery (Not Included in T&M)	Bord & Pillar (Face)	20:30	Failure To Comply With Standards	Miner	Removing Equip/Machinery
89R0074I	Other Machinery (Not Included in T&M)	Bord & Pillar (Face)	12:30	Inadequate Exam/Inspe./Test	General Labourer	Unreliable Data (Acc. before 1/7/90)
91R0024I	Other Machinery (Not Included in T&M)	Bord & Pillar (Face)	9:30	Use of Unsuitable Equip/Material/Facilities	Lasher	Pulling
88R0344I	Other Machinery (Not Included in T&M)	Longwall	22:30	Failure To Comply With Instructions	Labourer	Unreliable Data (Acc. before 1/7/90)
90R0202I	Other Machinery (Not Included in T&M)	Longwall	22:30	Failure To Comply With Standards	Conveyer Belt Attendant	Pulling
92E0172I	Other Machinery (Not Included in T&M)	Longwall	10:00	Lack of Caution / Alertness	L.Wall Shearer Operator/Crew	Remove Not Suppl/Equip/Mach
89T0714I	Other Machinery (Not Vehicle)	Bord & Pillar (Face)	13:30	Failure To Comply With Standards	Team Leader	Unreliable Data (Acc. before 1/7/90)
94G0420I	Other Machinery (Not Vehicle)	Bord & Pillar (Face)	No Data Captured To Date	No Data Captured To Date	No Data Captured To Date	No Data Captured To Date
92E0049I	Other Motor Vehicles	Bord & Pillar (Face)	12:40	Failure To Comply With Standards	Machine Operator	Walking / Traveling by Foot
89R0128I	Other Motor Vehicles	Longwall	8:30	Use of Unsuitable Equip/Material/Facilities	Conveyer Belt Attendant	Unreliable Data (Acc. before 1/7/90)
90T0108I	Other Transporter	Bord & Pillar (Face)	23:30	Failure To Comply With Instruction	Electro Mechanic/Millwright	Unreliable Data (Acc. before 1/7/90)
90T0108I	Other Transporters (specify)	Bord & Pillar (Face)	23:30	Failure To Comply With Instructions	Electro Mechanic/Millwright	Unreliable Data (Acc. before 1/7/90)
88R0125I	Other Transporters (specify)	Center Gully & Tip	13:30	Lack of Clearance (Obstruction)	General Labourer	Operate/Drive T.Less Vehicle
88R0016I	Other Transporters (specify)	Conveyer Loading Point	9:30	Failure to Supply Safety Dev/Equip/Syst	Tractor Driver	Operate/Drive T.Less Vehicle
88R0071I	Other Transporters (specify)	Traveling Way (excl. Shafts)	8:30	Failure To Comply With Instructions	Machine Cleaner	Unreliable Data (Acc. before 1/7/90)
92F0289I	Other Transporters (specify)	Traveling Way (excl. Shafts)	1:25	Failure To Comply With Standards	Conveyer Belt Attendant	Unreliable Data (Acc. before 1/7/90)
92F0274I	Other Transporters (specify)	Traveling Way (excl. Shafts)	4:30	Failure To Comply With Standards	General Labourer	Operate/Drive T.Less Vehicle
91T0032I	Other Transporters (specify)	Vertical Shaft Bank	1:30	Failure to use Safety Device/Eq Syst	Electrician	Connect Equip/Mach/Hoses
90N0263I	Other Transporters (specify)	Vertical Shaft Bank	22:30	Lack of Caution / Alertness	Elevator Operator (Lifts)	Open/Close Door
88S0077I	Personnel Transporter	Roadway (UG)	22:30	Failure To Comply With Standards	Conveyer Belt Attendant	Unreliable Data (Acc. before 1/7/90)

Underground Coal Accident Data (Injuries) All Regions (1988-1992)			
ACCNO	CLASS/ACC	CLASS/PLACE	TIME
			CAUSE
88S0080I	Personnel Transporter	Traveling Way (excl. Shafis)	23:30 Failure To Comply With Instructions
90S0070I	Personnel Transporter	Vehicle Maintenance (U/G)	17:30 Failure To Comply With Standards
89R0251I	Portable Power Tools (Coal Drill)	Bord & Pillar (Face)	17:30 Failure To Comply With Standards
91R0051I	Portable Power Tools (Coal Drill)	Bord & Pillar (Face)	2:30 Failure To Comply With Standards
90R0133I	Portable Power Tools (Coal Drill)	Bord & Pillar (Face)	22:30 Failure To Comply With Standards
88R0163I	Portable Power Tools (Coal Drill)	Bord & Pillar (Face)	23:30 Failure To Comply With Standards
92F0045I	Portable Power Tools (Coal Drill)	Bord & Pillar (Face)	6:00 Failure To Comply With Standards
90R0090I	Portable Power Tools (Coal Drill)	Bord & Pillar (Face)	20:30 Use of Unsuitable Equip/Material/Facilities
88S0034I	Portable Power Tools (Hand Tool)	Bord & Pillar (Face)	8:30 Failure to use Safety Device/Eq/Syst
91N0240I	Portable Power Tools (Hand Tool)	Bord & Pillar (Face)	18:30 Inadequate Exam/Insp./Test
92F0159I	Portable Power Tools (Hand Tool)	Bord & Pillar (Face)	1:20 Lack of Caution / Alertness
91N0076I	Portable Power Tools (Hand Tool)	Bord & Pillar (Face)	10:30 Lack of Caution / Alertness
88R0240I	Portable Power Tools (Hand Tool)	Bord & Pillar (Face)	8:30 Lack of Caution / Alertness
90N0249I	Portable Power Tools (Hand Tool)	Conveyer Road (UG)	7:30 Lack of Caution / Alertness
91R0108I	Portable Power Tools (Hand Tool)	Longwall	8:30 Failure To Comply With Standards
91R0129I	Portable Power Tools (Other P.P.T.)	Conveyer Road (UG)	2:30 Failure To Comply With Standards
90R0089I	Portable Power Tools (Other P.P.T.)	Conveyer Road (UG)	14:30 Use of Unsuitable Equip/Material/Facilities
88R0360I	Portable Power Tools (Other P.P.T.)	Longwall	17:30 Failure To Comply With Standards
90R0027I	Portable Power Tools (Other P.P.T.)	Longwall	23:30 Lack of Caution / Alertness
91S0081I	Portable Power Tools (Other P.P.T.)	Return Airway	7:30 Failure to Supply Safety Dev/Equip/Syst
88S0148I	Portable Power Tools (Other P.P.T.)	Roadway (UG)	21:30 Failure To Comply With Standards
92F0467I	Portable Power Tools (Rock Drill)	Bord & Pillar (Face)	18:07 Failure To Comply With Standards
92F0301I	Portable Power Tools (Rock Drill)	Bord & Pillar (Face)	23:30 Failure To Comply With Standards
89R0071I	Portable Power Tools (Rock Drill)	Bord & Pillar (Face)	8:30 Failure To Comply With Standards
90N0228I	Rocker Arm Shovel (Boesman)	Bord & Pillar (Face)	7:30 Failure To Comply With Standards
90R0149I	Rocker Arm Shovel (Boesman)	Bord & Pillar (Face)	23:30 Lack of Caution / Alertness
90S0029I	Roof Bolter	Bord & Pillar (Face)	22:30 Failure To Comply With Instructions
91R0460I	Roof Bolter	Bord & Pillar (Face)	05:30 Failure To Comply With Standards
92E0120I	Roof Bolter	Bord & Pillar (Face)	1:40 Failure To Comply With Standards
90R0163I	Roof Bolter	Bord & Pillar (Face)	11:30 Failure To Comply With Standards
89S0031I	Roof Bolter	Bord & Pillar (Face)	11:30 Failure To Comply With Standards
92F0408I	Roof Bolter	Bord & Pillar (Face)	14:55 Failure To Comply With Standards
92E0166I	Roof Bolter	Bord & Pillar (Face)	19:30 Failure To Comply With Standards
90S0111I	Roof Bolter	Bord & Pillar (Face)	2:30 Failure To Comply With Standards
90N0073I	Roof Bolter	Bord & Pillar (Face)	21:30 Failure To Comply With Standards
92F0009I	Roof Bolter	Bord & Pillar (Face)	23:35 Failure To Comply With Standards
89S0055I	Roof Bolter	Bord & Pillar (Face)	3:30 Failure To Comply With Standards
90N0071I	Roof Bolter	Bord & Pillar (Face)	4:30 Failure To Comply With Standards
91T0460I	Roof Bolter	Bord & Pillar (Face)	5:30 Failure To Comply With Standards
91R0236I	Roof Bolter	Bord & Pillar (Face)	9:30 Failure To Comply With Standards
92F0084I	Roof Bolter	Bord & Pillar (Face)	13:10 Failure to use Safety Device/Eq/Syst

Underground Coal Accident Data (Injuries) All Regions (1988-1992)

ACCNO	CLASS/ACC	CLASS/PLACE	TIME	CAUSE	OCCUPATION	ACTIVITY
89N0057I	Roof Bolter	Bord & Pillar (Face)	13:30	Inadequate Exam/Insp./Test	Driller	Unreliable Data (Acc. before 1/7/90)
92F0347I	Roof Bolter	Bord & Pillar (Face)	18:00	Inadequate/Lack of Fencing/Equip	Mobile R.B. Mach. Operator	Removing Support
89N0165I	Roof Bolter	Bord & Pillar (Face)	12:30	Lack of (or Inad. Std./Proc.)	Machine Operator	Unreliable Data (Acc. before 1/7/90)
92F0410I	Roof Bolter	Bord & Pillar (Face)	13:15	Lack of (or Unsuitable) System/Facilities	Driller	Install Supp/Bairf/S Wall
92E0048I	Roof Bolter	Bord & Pillar (Face)	12:00	Lack of Adequate/ Suitable Training	Machine Operator	Guiding
90R0180I	Roof Bolter	Bord & Pillar (Face)	7:30	Lack of Adequate/ Suitable Training	Miner	Tramming
92E0142I	Roof Bolter	Bord & Pillar (Face)	10:00	Lack of Caution / Alertness	Instructor	Check (Not Eq/Mach/Vehicle)
92F0338I	Roof Bolter	Bord & Pillar (Face)	20:25	Lack of Caution / Alertness	Machine Operator	Standing
92E0122I	Roof Bolter	Bord & Pillar (Face)	5:00	Lack of Caution / Alertness	Machine Operator	Drilling (Mechanical)
92E0121I	Roof Bolter	Bord & Pillar (Face)	10:00	Lack of Clearance (Obstruction)	L.Wall Shearer Operator/Crew	Loosening
92E0024I	Roof Bolter	Bord & Pillar (Face)	1:00	Use of Unsuitable Equip/Material/Facilities	Mobile R.B. Mach. Operator	Installing Equip/Machinery
90R0094I	Roof Bolter	Conveyer Road (UG)	8:30	Failure To Comply With Standards	Machine Attendant/Minder	Drilling (Hydraulic)
93H0976I	Roof Bolter	Longwall (Coal)	12:00	Inadequate Exam/Insp./Test	Rock Drill Machine Crew	Drilling (Pneumatic)
89N0196I	Roof Bolter	Traveling Way (exc. Shafts)	20:30	Failure To Comply With Standards	Mobile R.B. Mach. Operator	Unreliable Data (Acc. before 1/7/90)
92E0128I	Ropeblock	Conveyer Transfer Point	10:50	Failure To Comply With Standards	Boesman/Rocker Arm Shovel Driver	Moving objects
89R0225I	Shuttle Car	Boilermaking / Welding Shop	7:30	Use of Unsuitable Equip/Material/Facilities	Fitter Aide	Unreliable Data (Acc. before 1/7/90)
91S0004I	Shuttle Car	Bord & Pillar (Face)	10:30	Failure To Comply With Standards	Continuous Miner Driver	Walking / Traveling by Foot
91N0198I	Shuttle Car	Bord & Pillar (Face)	10:30	Failure To Comply With Standards	Labourer	Handling
89S0155I	Shuttle Car	Bord & Pillar (Face)	11:30	Failure To Comply With Standards	Fitter Aide	Unreliable Data (Acc. before 1/7/90)
89N0397I	Shuttle Car	Bord & Pillar (Face)	12:30	Failure To Comply With Standards	Machine Operator	Sitting
90S0034I	Shuttle Car	Bord & Pillar (Face)	12:30	Failure To Comply With Standards	Artisan Helper	Unreliable Data (Acc. before 1/7/90)
92F0373I	Shuttle Car	Bord & Pillar (Face)	13:15	Failure To Comply With Standards	Continuous Miner Driver	Standing
89R0056I	Shuttle Car	Bord & Pillar (Face)	14:30	Failure To Comply With Standards	Labourer	Unreliable Data (Acc. before 1/7/90)
90S0135I	Shuttle Car	Bord & Pillar (Face)	19:30	Failure To Comply With Standards	Conveyer Belt Attendant	Operate/Drive T.Less Vehicle
90N0047I	Shuttle Car	Bord & Pillar (Face)	19:30	Failure To Comply With Standards	Team Leader	Standing
90S0063I	Shuttle Car	Bord & Pillar (Face)	20:30	Failure To Comply With Standards	Miner	Walking / Travelling by Foot
88T0735I	Shuttle Car	Bord & Pillar (Face)	21:30	Failure To Comply With Standards	S.C./LHD/Scoop Driver/Crew	Unreliable Data (Acc. before 1/7/90)
92F0335I	Shuttle Car	Bord & Pillar (Face)	22:10	Failure To Comply With Standards	Fitter	Raising/Lift/Lower by Hand
91R0224I	Shuttle Car	Bord & Pillar (Face)	22:30	Failure To Comply With Standards	Driller	Sitting
88S0102I	Shuttle Car	Bord & Pillar (Face)	22:30	Failure To Comply With Standards	Fitter Aide	Unreliable Data (Acc. before 1/7/90)
90S0076I	Shuttle Car	Bord & Pillar (Face)	3:30	Failure To Comply With Standards	General Labourer	Turning On/Off
88N0133I	Shuttle Car	Bord & Pillar (Face)	5:30	Failure To Comply With Standards	Pinch Bar User	Unreliable Data (Acc. before 1/7/90)
88N0132I	Shuttle Car	Bord & Pillar (Face)	6:30	Failure To Comply With Standards	S.C./LHD/Scoop Driver/Crew	Operate Equip/Mach/Tools
88N0067I	Shuttle Car	Bord & Pillar (Face)	7:30	Failure To Comply With Standards	Machine Operator	Unreliable Data (Acc. before 1/7/90)
91S0032I	Shuttle Car	Bord & Pillar (Face)	7:30	Failure To Comply With Standards	Machine Operator	Tying
91N0175I	Shuttle Car	Bord & Pillar (Face)	8:30	Failure To Comply With Standards	Labourer	Handling
92F0371I	Shuttle Car	Bord & Pillar (Face)	9:45	Failure To Comply With Standards	Continuous Miner Driver	Standing
88T0735I	Shuttle Car	Bord & Pillar (Face)	21:30	Failure To Comply With Standards	S.C/LHD/Scoop Driver Crew	Unreliable Data (Acc. before 1/7/90)
88S0031I	Shuttle Car	Bord & Pillar (Face)	7:30	Failure to Supply Safety Dev/Equip/Syst	Miner	Connect/Disconnect Electricity
92F0151I	Shuttle Car	Bord & Pillar (Face)	13:30	Inadequate Supervision/Discipline	Machine Operator	Sitting
90N0326I	Shuttle Car	Bord & Pillar (Face)	21:30	Inadequate Supervision/Discipline	Coal Cutter Driver/crew	

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	CLASS/ACC	CLASS/PLACE	TIME	CAUSE	OCCUPATION	ACTIVITY
91N0220I	Shuttle Car	Bord & Pillar (Face)	6:30	Lack of (or Unsuitable) System/Facilities	Electrician	Walking / Travelling by Foot
89S0133I	Shuttle Car	Bord & Pillar (Face)	4:30	Lack of Adequate/ Suitable Training	Miner	Unreliable Data (Acc. before 1/7/90)
89S0231I	Shuttle Car	Bord & Pillar (Face)	0:30	Lack of Caution / Alertness	Continuous Miner Driver	Unreliable Data (Acc. before 1/7/90)
89R0240I	Shuttle Car	Bord & Pillar (Face)	11:30	Lack of Caution / Alertness	S.C./LHD/Scoop Driver/Crew	Unreliable Data (Acc. before 1/7/90)
88N0064I	Shuttle Car	Bord & Pillar (Face)	13:30	Lack of Caution / Alertness	Artisan Helper	Unreliable Data (Acc. before 1/7/90)
88N0159I	Shuttle Car	Bord & Pillar (Face)	13:30	Lack of Caution / Alertness	Team Leader	Unreliable Data (Acc. before 1/7/90)
92F0283I	Shuttle Car	Bord & Pillar (Face)	16:00	Lack of Caution / Alertness	Continuous Miner Driver	Raising/Lift/Lower by Hand
92F0413I	Shuttle Car	Bord & Pillar (Face)	15:25	Rendering Safety Device Ineffective	S.C./LHD/Scoop Driver/Crew	Testing Equip/Machinery
92F0310I	Shuttle Car	Bord & Pillar (Face)	8:00	Use of Unsuitable Equip/Material/Facilities	Team Leader	Walking / Travelling by Foot
90T0109I	Shuttle Car	Conveyer Loading Point	10:30	Failure To Comply With Instruction	S.C./LHD/Scoop Driver Crew	Standing
90T0109I	Shuttle Car	Conveyer Loading Point	10:30	Failure To Comply With Instructions	S.C./LHD/Scoop Driver/Crew	Standing
92F0072I	Shuttle Car	Conveyer Loading Point	14:50	Failure To Comply With Instructions	General Labourer	Standing
88R0214I	Shuttle Car	Conveyer Loading Point	12:30	Failure To Comply With Standards	Tip Assistant/Attendant	Unreliable Data (Acc. before 1/7/90)
91R0075I	Shuttle Car	Conveyer Loading Point	14:30	Failure To Comply With Standards	Machine Operator	Pushing
90S0069I	Shuttle Car	Conveyer Loading Point	21:30	Failure To Comply With Standards	S.C./LHD/Scoop Driver/Crew	Unreliable Data (Acc. before 1/7/90)
88R0169I	Shuttle Car	Conveyer Loading Point	7:30	Lack of Caution / Alertness	Team Leader	Unreliable Data (Acc. before 1/7/90)
90R0147I	Shuttle Car	Conveyer Road (UG)	23:30	Failure To Comply With Standards	Fitter	Riding on Track Bound Vehicle
88S0002I	Shuttle Car	Development	4:30	Failure To Comply With Standards	General Labourer	Unreliable Data (Acc. before 1/7/90)
92F0005I	Shuttle Car	Inclined Shaft	1:00	Inadequate Examn/Insp./Test	Artisan Helper	Clearing Obstruction
91T0110I	Shuttle Car	Roadway (U/G)	16:30	Lack of Adequate/ Suitable Training	Machine Operator	Drive/Operate Trackless Vehicle
92F0116I	Shuttle Car	Roadway (U/G)	10:25	Failure To Comply With Standards	Mobile R.B. Mach. Operator	Operate/Drive T.Less Vehicle
90N0239I	Shuttle Car	Roadway (U/G)	11:30	Failure To Comply With Standards	S.C./LHD/Scoop Driver/Crew	Sitting
90R0188I	Shuttle Car	Roadway (U/G)	14:30	Failure To Comply With Standards	Team Leader	Close/Open Not Door/valve
90N0342I	Shuttle Car	Roadway (U/G)	20:30	Inadequate Supervision/Discipline	Machine Operator	Connect Equip/Mach/Hoses
89R0065I	Shuttle Car	Roadway (U/G)	8:30	Inadequate Supervision/Discipline	Driller	Unreliable Data (Acc. before 1/7/90)
88S0014I	Shuttle Car	Roadway (U/G)	15:30	Lack of (or Inad. Std./Proc.)	Filter	Unreliable Data (Acc. before 1/7/90)
91T0101I	Shuttle Car	Roadway (U/G)	12:30	Lack of Adequate/ Suitable Training	Machine Operator	Operate/Drive T.Less Vehicle
89N0133I	Shuttle Car	Vehicle Maintenance (U/G)	10:30	Failure To Comply With Standards	Filter	Installing Equip/Machinery
90N0074I	Shuttle Car	Vehicle Maintenance (U/G)	13:30	Failure To Comply With Standards	Tyre Repairer	Repair/Serv/Maintain
89N0298I	Shuttle Car	Vehicle Maintenance (U/G)	6:30	Failure To Comply With Standards	Labourer	Unreliable Data (Acc. before 1/7/90)
88R0117I	Scraper Winch Install. (face scraper)	Bord & Pillar (Face)	9:30	Failure To Comply With Instructions	Mine Labourer	Unreliable Data (Acc. before 1/7/90)
92E0160I	Scraper Winch Install. (face scraper)	Bord & Pillar (Face)	10:00	Failure To Comply With Standards	Labourer	Installing Equip/Machinery
92E0157I	Scraper Winch Install. (face scraper)	Bord & Pillar (Face)	10:45	Failure To Comply With Standards	Labourer	Loading / Offloading
91R0119I	Scraper Winch Install. (face scraper)	Bord & Pillar (Face)	12:30	Failure To Comply With Standards	Labourer	Lashing/Shoveling
92E0093I	Scraper Winch Install. (face scraper)	Bord & Pillar (Face)	12:45	Failure To Comply With Standards	Lasher	Operate Equip/Mach/Tools
92E0164I	Scraper Winch Install. (face scraper)	Bord & Pillar (Face)	20:10	Failure To Comply With Standards	Team Leader	Standing
92E0159I	Scraper Winch Install. (face scraper)	Bord & Pillar (Face)	8:00	Failure To Comply With Standards	Labourer	Loading / Offloading
91R0099I	Scraper Winch Install. (face scraper)	Bord & Pillar (Face)	12:30	Failure to Supply Proper Tool/Equip	Pneumatic Driller	Handling
92E0016I	Scraper Winch Install. (face scraper)	Bord & Pillar (Face)	11:00	Failure to Supply Safety Dev/Equip/System	Winch Driver	Remove Not Supp/EEquip/Mach
88R0072I	Scraper Winch Install. (face scraper)	Bord & Pillar (Face)	13:30	Failure to use Safety Device/EQy/Syst	Mine Labourer	Unreliable Data (Acc. before 1/7/90)
91R0013I	Scraper Winch Install. (face scraper)	Bord & Pillar (Face)	13:30	Failure to use Safety Device/EQy/Syst	Lasher	Lashing/Shoveling

Underground Coal Accident Data (Injuries) All Regions (1988-1992)					
	CLASS/ACC	CLASS/PLACE	CAUSE	OCCUPATION	ACTIVITY
88R0328I	Scraper Winch Install. (face scraper)	Bord & Pillar (Face)	13:30 Use of Unsuitable Equip/Material/Facilities	Fitter Aide	Unreliable Data (Acc. before 1/7/90)
88R0096I	Scraper Winch Install. (face scraper)	Other Location	1:30 Failure to Supply Safety Dev/Equip/Syst	Labourer	Unreliable Data (Acc. before 1/7/90)
91R0053I	Scraper Winch Install. (guily)	Loading Box (excl. Shaft)	16:30 Failure To Comply With Instructions	Miners Assistant	Climb up/down Struc/Mach/Ladder
90R0129I	Scraper Winch Install. (other)	Bord & Pillar (Face)	8:30 Failure To Comply With Standards	Lasher	Loading / Offloading
88R0204I	Shearer (L.W)	Bord & Pillar (Face)	22:30 Failure To Comply With Standards	Machine Operator	Unreliable Data (Acc. before 1/7/90)
88S0003I	Shearer (L.W)	Bord & Pillar (Face)	8:30 Inadequate/Lack of Fencing/Equip	Rock Drill Machine Crew	Unreliable Data (Acc. before 1/7/90)
88R0317I	Shearer (L.W)	Longwall	16:30 Failure To Comply With Instructions	Machine Operator	Unreliable Data (Acc. before 1/7/90)
91S0155I	Shearer (L.W)	Longwall	10:30 Failure To Comply With Standards	Fitter Aide	Remove Not Supp/Equip/Mach
91R0026I	Shearer (L.W)	Longwall	20:30 Failure To Comply With Standards	Labourer	Carrying
91R0025I	Shearer (L.W)	Longwall	18:30 Inadequate Preventative Maintenance	Miner	Connect Equip/Mach/Hoses
89S0011I	Shearer (L.W)	Longwall	13:30 Inadequate/Lack of Fencing/Equip	Electro Mechanic/Millwright	Unreliable Data (Acc. before 1/7/90)
92E0125I	Shearer (L.W)	Longwall	14:00 Lack of Caution / Alertness	L.Wall Shearer Operator/Crew	Moving objects
88S0122I	Shearer (L.W)	Other Location	17:30 Failure To Comply With Standards	Driller	Unreliable Data (Acc. before 1/7/90)
88R0062I	Shearer (L.W)	Roadway (UG)	11:30 Inadequate Exam/Insp./Test	Engine Attendant	Unreliable Data (Acc. before 1/7/90)
91R0057I	Single Drum Winch	Bord & Pillar (Face)	19:30 Failure To Comply With Standards	Lasher	Reclaiming Sweep/vamp
91N0192I	Tractor	Bord & Pillar (Face)	21:30 Failure To Comply With Standards	Labourer	Riding (Pass/Guard) Tr. Less Vehicle
92E0004I	Tractor	Bord & Pillar (Face)	13:00 Inadequate Exam/Insp./Test	Labourer	Raising/Lift/Lower by Hand
89S0066I	Tractor	Conveyer Transfer Point	7:30 Failure To Comply With Standards	General Labourer	Unreliable Data (Acc. before 1/7/90)
92E0006I	Tractor	Other Location	9:30 Failure To Comply With Standards	Tractor Driver	Walking / Traveling by Foot
94H1234I	Tractor	Personnel Crush or T/Way	17:10 Failure To Comply With Standards	Miner	Unreliable Data (Acc. before 1/7/90)
88T0794I	Tractor	Roadway (UG)	00:30 Failure To Comply With Instructions	Plant Operator	Unreliable Data (Acc. before 1/7/90)
88S0157I	Tractor	Roadway (UG)	0:30 Failure To Comply With Instructions	Team Leader	Unreliable Data (Acc. before 1/7/90)
88T0794I	Tractor	Roadway (UG)	0:30 Failure To Comply With Instructions	Plant Operator	Unreliable Data (Acc. before 1/7/90)
92E0153I	Tractor	Roadway (UG)	10:00 Failure To Comply With Standards	Tractor Driver	Standing
92E0224I	Tractor	Roadway (UG)	14:30 Failure To Comply With Standards	Tractor Driver	Standing
89S0064I	Tractor	Roadway (UG)	17:30 Failure To Comply With Standards	Construction Worker (U/G)	Unreliable Data (Acc. before 1/7/90)
91F0045I	Tractor	Roadway (UG)	9:30 Inadequate/Lack of Fencing/Equip	Boilermaker	Standing
92E0096I	Tractor	Roadway (UG)	4:00 Lack of Caution / Alertness	Tractor Driver	Operate/Drive T.Less Vehicle
88R0305I	Tractor	Roadway (UG)	11:30 Lack of Clearance (Obstruction)	Tractor Driver	Unreliable Data (Acc. before 1/7/90)
88N0221I	Tractor	Shaft Bottom (Excl. Sinking)	5:30 Inadequate Preventative Maintenance	Tractor Driver	Unreliable Data (Acc. before 1/7/90)
88R0197I	Tractor	Traveling Way (exc. Shafts)	12:30 Failure To Comply With Instructions	Tractor Driver	Unreliable Data (Acc. before 1/7/90)
92E0027I	Tractor	Traveling Way (exc. Shafts)	20:15 Failure To Comply With Standards	Labourer	Connecting Vehicles
88N0063I	Tractor	Traveling Way (exc. Shafts)	5:30 Failure To Comply With Standards	Artisan Helper	Unreliable Data (Acc. before 1/7/90)
94G0421I	Tractor	Traveling Way (Excl. Shafts)	No Data Captured To Date	No Data Captured To Date	No Data Captured To Date
89J0359I	Tractor	Vertical Shaft Station	09:30 Failure to use Safety Device/Eq/Syst	Electrician Aide	Unreliable Data (Acc. before 1/7/90)
89J0359I	Tractor	Vertical Shaft Station	9:30 Failure to use Safety Device/Eq/Syst	Electrician Aide	Unreliable Data (Acc. before 1/7/90)
91N0316I	Trailer Drawn By Tractor	Bord & Pillar (Face)	1:30 Failure To Comply With Standards	Tractor Driver	Connecting Vehicles
91N0193I	Trailer Drawn By Tractor	Bord & Pillar (Face)	11:30 Failure To Comply With Standards	Labourer	Connecting Vehicles
91N0270I	Trailer Drawn By Tractor	Bord & Pillar (Face)	19:30 Failure To Comply With Standards	Labourer	Connecting Vehicles
90N0012I	Trailer Drawn By Tractor	Bord & Pillar (Face)	23:30 Lack of Caution / Alertness	Team Leader	Unreliable Data (Acc. before 1/7/90)
89S0138I	Trailer Drawn By Tractor	Bord & Pillar (Face)	8:30 Lack of Caution / Alertness	Team Leader	Unreliable Data (Acc. before 1/7/90)

NATAL: TRANSPORT & MACHINERY ACCIDENTS 1988-1994 (CONTINUED)

YEAR	CLASSIFICATION /CODE	CLASS OF PLACE	CAUSE OF ACCIDENT	OCCUPATION	ACTIVITY	INJURY	ALLOC. D.LOST
1988 CONTINUED:							
1988I	ENDLESS ROPE HAULAGE	HAULAGE(INC-END,ROPE)	FAILURE TO COMP.WITH STANDARDS	TRACK LAYER	FRACTURE 2/MORE FINGERS	63	
1988I	ENDLESS ROPE HAULAGE	HAULAGE(INC-END,ROPE)	FAILURE TO COMP.WITH STANDARDS	LABOURER	FRACTURE:WRIST(SCH/FLEX)	127	
1988I	ENDLESS ROPE HAULAGE	HAULAGE(INC-END,ROPE)	INADEQUATE PREVENTIVE MAINTENANCE	HAULAGE ATTENDANT	CONTUSION:WHOLE LOWER LIMB	17	
1988I	ENDLESS ROPE HAULAGE	HAULAGE(INC-END,ROPE)	LACK OF CLEARANCE (OBSTRUCTION)	LAsher	FRACUTRE:LEG BELOW KNEE	160	
1988I	CON.BELT:TENSION CARRIAGE	CONVEYOR TRANSFER POINT	FAILURE TO COMP.WITH INSTRUCTIONS	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: LEG BELOW KNEE	2400	
1988I	CONVEYOR BELT: HEAD PULLEY	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH INSTRUCTIONS	UNRELIABLE DATA(BEFORE 1/7/90)	FRACUTRE: LEG BELOW KNEE	160	
1988I	CONVEYOR BELT TAIL PULLEY	CONVEYOR ROAD (UG)	RENDERING SAFETY DEVICE INEFFECTIVE	UNRELIABLE DATA(BEFORE 1/7/90)	CRUSHING INJ. FOOT INCL/TOES	50	
1988I	CONVEYOR BELT(OTHER ACCID)	OTHER LOCATION	FAILURE TO COMP.WITH STANDARDS	UNRELIABLE DATA(BEFORE 1/7/90)	FRACUTRE:LEG BELOW KNEE	160	
1988I	CON.BELT: OTHER ACCIDENT	OTHER LOCATION	FAILURE TO COMP.WITH STANDARDS	UNRELIABLE DATA(BEFORE 1/7/90)	OTHER INJURY:THUMB	19	
1988I	CONVEYOR BELT: TAIL PULLEY	LONGWALL (COAL)	USE OF UNSUITABLE EQUIPMENT ETC	UNRELIABLE DATA(BEFORE 1/7/90)	FRACUTRE: 1 FINGER	63	
1988I	CONV.BELT(SNUB PULLEY)	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH STANDARDS	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUT.: (SINGLE FINGER)	300	
1988F	LOAD HAUL DUMPER (LHD)	ROADWAY (UG)	LACK OF ILLUMINATION/VISIBILITY	UNRELIABLE DATA(BEFORE 1/7/90)	CONTUSION BRUISE;THORACIC/CHEST	6000	
1988I	LOAD HAUL DUMPER (LHD)	ROADWAY (UG)	USE OF UNSUITABLE EQUIPMENT ETC	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: LEG BELOW KNEE	2400	
1988I	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	LACK OF ILLUMINATION/VISIBILITY	UNRELIABLE DATA(BEFORE 1/7/90)	FRACUTRE: THORACIC/CHEST(SPI)	50	
1988I	LOAD HAUL DUMPER (LHD)	OTHER LOCATION	LACK OF CLEARANCE (OBSTRUCTION)	UNRELIABLE DATA(BEFORE 1/7/90)	FRACUTRE:LEG BELOW KNEE	160	
1988I	LOAD HAUL DUMPER (LHD)	CONVEYOR LOADING POINT	LACK OF CAUTION/ALERTNESS	UNRELIABLE DATA(BEFORE 1/7/90)	FRACUTRE: THIGH(FEMUR)	469	
1988F	OTHER TRANSPORTER	CONVEYOR LOADING POINT	LACK OF ILLUMINATION/VISIBILITY	CONVEYOR BELT ATTENDANT	CRUSHING INJ.THORAX EX SPINE	6000	
1988I	OTHER TRANSPORTER	CONVEYOR LOADING POINT	USE OF UNSUITABLE EQUIPMENT ETC	TEAM LEADER	CONTUSION BRUISE;PELVIC GIR	19	
1988I	OTHER TRANSPORTER	CENTRE GULLY & TIP	LACK OF ILLUMINATION/VISIBILITY	TEAM LEADER	FRACUTRE:LEG BEL.KNEE	160	
1988I	OTHER TRANSPORTER	TRAVELLING WAY EXCL.SHFT	LACK OF ILLUMINATION/VISIBILITY	CONVEYOR BELT ATTENDANT	AMPUTATION: FOOT	6000	
1988I	SCRAPER WINCH INSTL.	BORD & PILLAR (FACE)	FAILURE TO SUPPLY SAFETY DEVICES ETC	UNRELIABLE DATA(BEFORE 1/7/90)	FRACUTRE:UPPER/LOWER LIMB	469	
1988I	SCRAPER WINCH INSTL.	BORD & PILLAR (FACE)	FAILURE TO USE SAFETY DEVICES ETC	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: 2/MORE FINGERS	1200	
1988I	SCRAPER WINCH INSTL.	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	UNRELIABLE DATA(BEFORE 1/7/90)	FRACUTRE:(LEG BEL.KNEE)	160	
1988I	SCRAPER WINCH INSTL.	OTHER LOCATION	FAILURE TO SUPPLY SAFETY DEVICES ETC	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTAT:THUMB-1/MORE FING	1500	
1988I	PORT:POWER TOOL(HAND TOOL)	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	FITTER AIDE	FRACUTRE: 1 FINGER	63	
1988I	PORT:POWER TOOL(COAL DRILL)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MINE LABOURER	AMPUTATION:THUMB	600	
1988I	PORT:POWER TOOL (OTHER)	LONGWALL (COAL)	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	AMPUT:;(SINGLE FINGER)	300	
1988I	SHEARER	LONGWALL (COAL)	FAILURE TO COMP.WITH INSTRUCTIONS	MACHINE OPERATOR	CONCUSSION: BRAIN	51	
1988I	SHEARER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR	FRACUTRE: 1 FINGER	63	
1988I	SHEARER	ROADWAY (UG)	INADEQUATE EXAM/INSPECT/TEST	ENGINE ATTENDANT	FRACUTRE:LEG BEL.KNEE	160	
1988I	TRACTOR	TRAVELLING WAY EXCL.SHFT	FAILURE TO COMP.WITH INSTRUCTIONS	TRACTOR DRIVER	FFRACTURE:SCULL/SCALP	6000	
1988I	TRACTOR	ROADWAY (UG)	LACK OF CLEARANCE (OBSTRUCTION)	TEAM LEADER	UNRELIABLE DATA(BEFORE 1/7/90)	62	
1988F	TRACTOR	TRACTOR	INADEQUATE SUPERVISION/DISCIPLINE	TRACTOR DRIVER	CRUSHING INJ. SCULL/SCALP	6000	
1988I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	INADEQUATE EXAM/INSPECT/TEST	ENGINE DRIVER	UNRELIABLE DATA(BEFORE 1/7/90)	127	
1988I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR	UNRELIABLE DATA(BEFORE 1/7/90)	160	
1988I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	TEAM LEADER	UNRELIABLE DATA(BEFORE 1/7/90)	269	
1988I	SHUTTLE CAR	CONVEYOR LOADING POINT	INADEQUATE PREVENTIVE MAINTENANCE	TIP ASSISTANT/ATTENDANT	CONTUSION:KNEE JOINT/PAT ETC	14	
1988I	SHUTTLE CAR	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	AMPUTATION:MULTIPLE 1 HAND	3000	
1988I	BICYCLE: PNEUMATIC TYRE	ROADWAY (UG)	LACK OF CAUTION/ALERTNESS	FITTER AIDE	LACERATION:EXT GENITAL AREA	35	
1988I	OTHER MACHINERY	LONGWALL (COAL)	FAILURE TO COMP.WITH STANDARDS	LABOURER	LACERATION (EXCL TOES)	20	

NATAL: TRANSPORT & MACHINERY ACCIDENTS 1988-1994 (CONTINUED)

YEAR /CODE	CLASSIFICATION	CLASS OF PLACE	CAUSE OF ACCIDENT	OCCUPATION	ACTIVITY	INJURY	D.LOST
1989:							
1989I	HAND TRAMMED	BORD & PILLAR (FACE)	LACK OF CLEARANCE (OBSTRUCTION)	LASHER	AMPUT.(SINGLE FINGER)	300	
1989I	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP. WITH STANDARDS	LASHER	FRACUTRE:FOREARM(RAD/UL)	127	
1989I	HAND TRAMMED	BORD & PILLAR	INADEQUATE SUPERVISION/DISCIPLINE	LASHER	LACERATION:2/MORE FINGERS	33	
1989I	HAND TRAMMED	BORD & PILLAR	LACK OF CAUTION/ALERTNESS	TRAMMER	FRACUTRE: LEG BELO KNEE	160	
1989I	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP. WITH STANDARDS	MINE LABOURER	FRACUTRE:2/MORE FINGERS	63	
1989I	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP. WITH STANDARDS	LASHER	AMPUTATION: TOES 1/MORE	300	
1989I	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO USE SAFETY DEVICE ETC	DRILLER	AMPUT.(SINGLE FINGER)	300	
1989I	HAND TRAMMED	BORD & PILLAR (FACE)	INADEQUATE SUPERVISION/DISCIPLINE	LASHER	AMPUTATION: THUMB	600	
1989I	HAND TRAMMED	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	HAULAGE ATTENDANT	LACERATION:1 FINGER	33	
1989I	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP. WITH STANDARDS	LASHER	FRACUTRE: THORACIC	62	
				TRAMMER	LACERATION: ANKLE	41	
1989I	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	LACK OF CLEARANCE (OBSTRUCTION)	ARTISAN HELPER	FRACUTRE:LEG BELOW KNEE	160	
1989I	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	FAILURE TO COMP. WITH STANDARDS	DRILLING CONTRACTOR	FRACUTRE: ANKLE	160	
1989I	LOAD HAUL DUMPER (LHD)	ROADWAY (UG)	INADEQUATE SUPERVISION/DISCIPLINE	ENGINE DRIVER	AMPUTATION: 1 FINGER	300	
1989I	LOAD HAUL DUMPER (LHD)	ROADWAY (UG)	FAILURE TO COMP. WITH STANDARDS	CONT:MINER DRIVER/CREW	MULTIPLE INJ. TO TRUNK	166	
		INCIDED SHFT	FAILURE TO COMP. WITH INSTRUCTIONS	DRILLER	AMPUTAT:THUMB:1/MORE FING.	500	
1989I	FRONT END LOADER	OTHER W.SHOP(NOT REPAIR BAY)	FAILURE TO COMP. WITH STANDARDS	MINE LABOURER	UNRELIABLE DATA(BEFORE 1/7/90)		
1989I	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMP. WITH STANDARDS	C.CUTTER DRIVER/CREW	CONTUSION BRUISE:PELV GIRD	19	
1989I	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMP. WITH STANDARDS	WINCH DRIVER	UNRELIABLE DATA(BEFORE 1/7/90)		
1989I	COAL CUTTER	ROADWAY (UG)	FAILURE TO COMP. WITH STANDARDS	C.CUTTER DRIVER/CREW	AMPUTATION:1 FINGER	300	
1989I	COAL CUTTER	ROADWAY (UG)	FAILURE TO COMP. WITH STANDARDS	C.CUTTER DRIVER/CREW	AMPUTATION: ARM(HUMERUS)	450	
1989I	COAL CUTTER	ROADWAY (UG)	FAILURE TO COMP. WITH STANDARDS	C.CUTTER DRIVER/CREW	MULTIPLE INJ. FOOT EXC. TOES	50	
		INCIDED SHAFT	FAILURE TO COMP. WITH STANDARDS	DRILLER	LACERATION:LEG BEL KNEE	41	
1989I	CONVEYOR BELT:OTHER ACCID.	CONVEYOR LOADING POINT	FAILURE TO COMP. WITH INSTRUCTION	DRILLER	LACERATION: FOOT EXC. TOES	20	
1989I	CONVEYOR BELT:OTHER ACCID.	CONVEYOR LOADING POINT	INADEQUATE EXAM/INSPECT/TEST	CONVEYOR BELT ATTENDANT	UNRELIABLE DATA(BEFORE 1/7/90)		
1989I	CONVEYOR BELT:SNUB PULLEY	CONVEYOR DISCHARGE POINT	FAILURE TO COMP. WITH STANDARDS	SUPERVISOR	UNRELIABLE DATA(BEFORE 1/7/90)		
			FAILURE TO COMP. WITH INSTRUCTION	DRILLER	LACERATION:KNEE, JOINT/PAT	22	
1989I	BICYCLE:PNEUMATIC TYRE	ROADWAY (UG)	INADEQUATE PREVENTIVE MAINTENANCE	ARTISAN HELPER	FRACUTRE:LEG BELOW KNEE	160	
1989I	BICYCLE:PNEUMATIC TYRE	ROADWAY (UG)	INADEQUATE EXAM/INSPECT/TEST	ARTISAN HELPER	OTHER INJ.MULTIP.1 ARM	18	
1989I	BICYCLE:PNEUMATIC TYRE	ROADWAY (UG)	FAILURE TO COMP. WITH STANDARDS	S.CAR/LHD/SCOOP DRIVER/CREW	FFRACTURE:2/MORE FINGERS	63	
1989I	SHUTTLE CAR	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	LABOURER	ABRASION:COLLAR BONE(CLAV)	14	
1989I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP. WITH STADARDS	FITTER AIDE	FFRACTURE:COLLAR BONE(CLAV)	186	
1989I	SHUTTLE CAR	BOILERMAKER OR WELDING SHOP	USE OF UNSUITABLE EQUIPMENT	DRILLER	FFRACTURE:LEG BELOW KNEE	186	
		ROADWAY (UG)	INADEQUATE SUPERVISION/DISCIPLINE	DRILLER	FFRACTURE:LEG BELOW KNEE	160	
1989I	ENDLESS ROPE HAULAGE	HAULAGE(INC-END.ROPE)	LACK OF CAUTION/ALERTNESS	HOOKER ON	UNRELIABLE DATA(BEFORE 1/7/90)		
1989I	ENDLESS ROPE HAULAGE	HAULAGE(INC-END.ROPE)	FAILURE TO COMP. WITH STANDARDS	CABLE JOINER	TRANSPORTING		
1989F	ENDLESS ROPE HAULAGE	HAULAGE(INC-END.ROPE)	FAILURE TO COMP. WITH STANDARDS	HAULAGE ATTENDANT	UNRELIABLE DATA(BEFORE 1/7/90)		
			FAILURE TO COMP. WITH STANDARDS	MINERS ASSISTANT	UNRELIABLE DATA(BEFORE 1/7/90)		
1989I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO USE SAFETY DEVICE	S.CAR/LHD/SCOOP DRIVER/CREW	UNRELIABLE DATA(BEFORE 1/7/90)		
1989I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP. WITH INSTRUCTIONS	MACHINE OPERATOR	UNRELIABLE DATA(BEFORE 1/7/90)		
1989I	PORT:POWER TOOL(COAL DRILL)	BORD & PILLAR (FACE)	FAILURE TO COMP. WITH STANDARDS	DRILLER	UNRELIABLE DATA(BEFORE 1/7/90)		
1989I	PORT:POWER TOOL(ROCK DRILL)	BORD & PILLAR (FACE)	FAILURE TO COMP. WITH STANDARDS	DRILLER	UNRELIABLE DATA(BEFORE 1/7/90)		
1989I	OTHER MACHINERY(NOT VEHIC)	BORD & PILLAR (FACE)	INADEQUATE EXAM/INSPECT/TEST	GENERAL LABOURER	UNRELIABLE DATA(BEFORE 1/7/90)		
1989I	DOUBLE DRUM WINCH	CONVEYOR ROAD (UG)	FAILURE TO COMP. WITH STANDARDS	MACHINE ATTENDANT/MINDER	UNRELIABLE DATA(BEFORE 1/7/90)		
			FAILURE TO COMP. WITH STANDARDS	DRILLER	AMPUTATION:1 FINGER	300	
1989I	SCRAPER WINCH INSTL FACE	BORD & PILLAR	LACK OF CLEARANCE (OBSTRUCTION)	HANDLING	CONTUSION BRUISE: ANKLE	14	
1989I	CONV.BELT(TAIL PULLEY)	LONGWALL (COAL)	LACK OF CAUTION/ALERTNESS	MINE LABOURER	INSTALLING EQUIPMENT/MACHINERY	246	
1989I	MOTOR VEH.(NOT CAR/LDV/BUS)	LONGWALL	USE OF UNSUITABLE EQUIPMENT ETC	CONVEYOR BELT ATTENDANT	UNRELIABLE DATA(BEFORE 1/7/90)	160	

NATAL TRANSPORT & MACHINERY ACCIDENTS 1988-1994 (CONTINUED)

YEAR /CODE	CLASSIFICATION	CLASS OF PLACE	CAUSE OF ACCIDENT	OCCUPATION	ACTIVITY	INJURY	ALLOC.	D.LOST
1989 CONTINUED:								
1989	FRONT END LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	HANGING/SUSPENDING	CONTSION BRUISE:FOOT(INC.TOES) 14		
1990:								
1990	HAND TRAMMED	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	TRAMMER	FRACTURE: 2/MORE FINGERS	63		
1990	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	FRACTURE: TOES 1/MORE	50		
1990	HAND TRAMMED	BORD & PILLAR (FACE)	LACK OF CLEARANCE (OBSTRUCTION)	LASHER	AMPUTATION: 1 FINGER	300		
1990	HAND TRAMMED	VERTICAL SHAFT STATION	LACK OF CAUTION/ALERTNESS	LASHER	LACERATION:PALM(THENAR)	33		
1990	HAND TRAMMED	VERTICAL SHAFT STATION	FAILURE TO COMP.WITH STANDARDS	MINE LABOURER	LACERATION:ABD+LUMB SPINE	21		
1990	HAND TRAMMED	OTHER LOCATION	FAILURE TO COMP.WITH STANDARDS	LASHER	CONTUSI.BRUISE:FOOT(INC.TOES)	14		
1990	ENDLESS ROPE HAULAGE	HAULAGE(INCL/END.ROPE)	LACK OF CAUTION/ALERTNESS	LASHER	FRACUTURE: 1 FINGER	63		
1990	ENDLESS ROPE HAULAGE	HAULAGE(INCL/END.ROPE)	FAILURE TO COMP.WITH STANDARDS	TRAMMING	FRACTURE: WIST(SCH/FLEX)	127		
1990	ENDLESS ROPE HAULAGE	HAULAGE(INCL/END.ROPE)	FAILURE TO COMP.WITH STANDARDS	LAYING	FRACTURE (THUMB)	63		
1990	ENDLESS ROPE HAULAGE	OTHER LOCATION	FAILURE TO COMP.WITH STANDARDS	TRAMMING	FRACTURE(MULT. TO HAND)	63		
1990	COAL CUTTER	HAULAGE(INCL/END.ROPE)	LACK OF CAUTION/ALERTNESS	PUSHING	FRACTURE: 1 FINGER	63		
1990	COAL CUTTER	HAULAGE(INCL/END.ROPE)	LACK OF CAUTION/ALERTNESS	HAULAGE ATTENDANT	UNRELIABLE DATA(BEFORE 1/7/90)			
1990	COAL CUTTER	HAULAGE(INCL/END.ROPE)	LACK OF CAUTION/ALERTNESS	MINER	AMPUTATION: TOES 1/MORE	300		
1990	COAL CUTTER	HAULAGE(INCL/END.ROPE)	LACK OF CAUTION/ALERTNESS	C.CUTTER DRIVER/CREW	AMPUTATION: 1 FINGER	300		
1990	COAL CUTTER	HAULAGE(INCL/END.ROPE)	LACK OF CAUTION/ALERTNESS	FITTER AIDE	AMPUTATION: 1 FINGER	300		
1990	COAL CUTTER	HAULAGE(INCL/END.ROPE)	LACK OF CAUTION/ALERTNESS	C.CUTTER DRIVER/CREW	AMPUTATION: 1 FINGER	300		
1990	COAL CUTTER	HAULAGE(INCL/END.ROPE)	LACK OF CAUTION/ALERTNESS	MACHINE OPERATOR	FRACUTURE: FOOT(INC.TOES)	50		
1990	COAL CUTTER	HAULAGE(INCL/END.ROPE)	LACK OF CAUTION/ALERTNESS	C.CUTTER DRIVER/CREW	FRACUTURE(THIGH,FEMUR)	469		
1990	LOAD HAUL DUMP(LHD)	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	UNRELIABLE DATA(BEFORE 1/7/90)	DISLOCATION:THORACIC	27		
1990	FRONT END LOADER	ROADWAY (UG)	LACK OF CLEARANCE (OBSTRUCTION)	ROADING AS PASS/GUARD T.LESS VEHICLE	AMPUT.(SINGLE FINGER)	27		
1990	LOAD HAUL DUMPER (LHD)	ROAD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	OPERATE EQUIP/MACH/TOOLS	AMPUTATION: 1 FINGER	300		
1990	LOAD HAUL DUMPER (LHD)	ROAD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	HOLDING	AMPUTATION: 1 FINGER	300		
1990	LOAD HAUL DUMPER (LHD)	ROAD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: WRIST(SCH/FLEX)	3000		
1990	FRONT END LOADER	ROAD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	DRIVING	SPRAIN/STRAIN:FOOT(INC.TOES)	18		
1990	CONVEYOR BELT: TAIL PULLEY	CONVEYOR LOADING POINT	INADEQUATE EXAM/INSPECT/TEST	DRIVE/OPERATE T.LESS VEHICLE	MULTIPLE INJURY TO 1 ARM	269		
1990	CONV.BELT OTHER ACCIDENT	CONVEYOR LOADING POINT	LACK OF CLEARANCE (OBSTRUCTION)	MAINTAINING/REPAIRING/SERVICING	MULTIPLE INJ.TO 1 ARM	269		
1990	CONVEYOR BELT(TAIL PULLEY)	CONVEYOR LOADING POINT	USE OF UNSUITABLE EQUIPMENT ETC	UNRELIABLE DATA(BEFORE 1/7/90)	FRACUTURE: ARM (HUMERUS)	246		
1990	CONVEY.BELT(OTHER ACCIDENT)	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH STANDARDS	DRIVE/OPERATE TRACKLESS VEHICLES	FRACUTURE: FACE(UPPER JAW)	152		
1990	PORT:POWER TOOLS(COAL DRILL)	CONVEYOR ROAD (UG)	LACK OF CAUTION/ALERTNESS	TRAMMING	BURN(STEAM) TO HEAD/NECK	14		
1990	PORT:POWER TOOL(COAL DRILL)	CONVEYOR ROAD (UG)	FAILURE TO COMP.WITH STANDARDS	REMOVING EQUIPMENT/MACHINERY	AMPUTATION: 1 FINGER	300		
1990	PORT:POWER TOOL(OTHER TOOL)	CONVEYOR ROAD (UG)	FAILURE TO COMP.WITH STANDARDS	REMOVING OTHER THAN SUPP/EQUIP/MACH	FFRACTURE: 1 FINGER	300		
1990	PORT:POWER TOOL(OTHER TOOL)	CONVEYOR ROAD (UG)	FAILURE TO COMP.WITH STANDARDS	JUMPING	FFRACTURE: ARM (HUMERUS)	300		
1990	PORT:POWER TOOL(OTHER TOOL)	LONGWALL	FAILURE TO COMP.WITH STANDARDS	CLEAN FOOTWALL	FFRACTURE: FACE(UPPER JAW)	300		
1990	TRAILER DRAWN BY TRACTOR	TRAVELLING WAY(EXCL.SHFT)	INADEQUATE EXAM/INSPECT/TEST	CHECK/INSPECT/EXAM.EQIP/MACH/VEHICLE	BURN(STEAM) TO HEAD/NECK	14		
1990	TRAILER DRAWN BY TRACTOR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	HOLDING	AMPUTATION: 1 FINGER	300		
1990	TRAILER DRAWN BY TRACTOR	OTHER LOCATION	FAILURE TO COMP.WITH STANDARDS	HOLDING	FFRACTURE: 1 FINGER	300		
1990	ROOF BOLTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	HOLDING	FFRACTURE: 1 FINGER	300		
1990	ROOF BOLTER	BORD & PILLAR (FACE)	LACK OF ADEQUATE/SUITABLE TRAINING	CHANGING EQUIPMENT/MATERIAL	MULTIP. INJ/ANTERIOR ABD WALL	6000		
1990	CONTINUOUS MINER	CONVEYOR ROAD (UG)	FAILURE TO COMP.WITH STANDARDS	COLLING HOLE	MULTIP. INJ. THIGH(FEMUR)	469		
1990	CONTINUOUS MINER	CONVEYOR ROAD (UG)	FAILURE TO COMP.WITH STANDARDS	TRAMMING (HYDRAULIC)	FFRACTURE: 1 FINGER	63		
1990	SHUTTLE CAR	CONVEYOR ROAD (UG)	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	CONTUSI.BRUISE:LEG BEL,KNEE	63		
1990	SHUTTLE CAR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	HANDYMAN	FFRACTURE: FOREARM(PAD/JLN)	127		
1990	OTHER MACH.(NOT VEHICLE)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	FITTER	FFRACTURE: FOOT(INC.TOES)	50		
1990	OTHER MACH.(NOT VEHICLE)	LONGWALL	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	SPRAIN/STRAIN:ABD+LUMB SPINE	82		

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YEAR /CODE	CLASSIFICATION	CLASS OF PLACE	CAUSE OF ACCIDENT	OCCUPATION	ACTIVITY	INJURY	ALLOC.	D.LOST
1990 CONTINUED:								
1990I	SCRAPER WINCH INST.(OTHER)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	LOADING/OFFLOADING	FRACTURE: LEG BELOW KNEE	160	
1990I	ROCKER ARM SHOVEL(BOESMAN)	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	G.A.LOADER DRIVER/CREW	DRIVE/OPERATE TRACKLESS VEHICLE	LACERATION: 1 FINGER	33	
1991:								
1991I	HAND TRAMMED	BORD & PILLAR (FACE)	LACK OF ADEQUATE/SUITABLE TRAINING	LASHER	RERAILING	LACERATION: 1 FINGER	33	
1991I	HAND TRAMMED	BORD & PILLAR (FACE)	LACK OF CLEARANCE(OBSTRUCTION)	LASHER	PUSHING	FRACTURE: 2/MORE FINGERS	63	
1991I	HAND TRAMMED	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	LASHER	LIFT/LOWER/RAISE BY HAND	AMPUTATION: 1 FINGER	300	
1991I	HAND TRAMMED	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	LASHER	TRAMMING	FRATURE: 1 FINGER	63	
1991I	HAND TRAMMED	OTHER LOCATION	FAILURE TO COMP.WITH STANDARDS	LASHER	TIPPING	FRATURE: FOOT(EXC.TOES)	50	
1991I	HAND TRAMMED	CONVEYOR ROAD	FAILURE TO COMP.WITH STANDARDS	LASHER	TRAMMING	AMPUTATION: 1 FINGER	300	
1991I	HAND TRAMMED	LOADING BOX (EXC.SHAFT)	FAILURE TO COMP.WITH STANDARDS	LASHER	TRAMMING	FRATURE: BOTH FEET	50	
1991I	HAND TRAMMED	HAULAGE(INC-END,ROPE)	FAILURE TO COMP.WITH STANDARDS	LASHER	TRAMMING	FRATURE: 1 FINGER	63	
1991I	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MINER	TRAMMING	FRACTURE: TOES 1/MORE	50	
1991I	COAL CUTTER	BORD & PILLAR (FACE)	USE OF UNSUITABLE EQUIPMENT ETC	C.CUTTER DRIVER/CREW	CUTTING	FRACTURE: LEG BELOW KNEE	160	
1991I	COAL CUTTER	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	LASHER	RERAILING	FRACTURE: ANKLE(CUNE)	63	
1991I	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MINER	CLEANING EQUIPMENT/MACHINERY	MULTIP. INJ. BOTH LOWER LIMBS	160	
1991I	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	C.CUTTER DRIVER/CREW	STANDING	LACERATION: ABD+LUMB SPINE	469	
1991I	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	C.CUTTER DRIVER/CREW	HANDLING	CRUSHING INJ. THORACIC(CHEST)	21	
1991I	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO SUPPLY PROPER TOOLS/EQUIP	C.CUTTER DRIVER/CREW	LOOSENING	FRACTURE: THUMB	62	
1991I	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	C.CUTTER DRIVER/CREW	TRAMMING	AMPUTATION: 1 FINGER	63	
1991I	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	C.CUTTER DRIVER/CREW	OPERATING EQUIP/MACHINERY/TOOLS	CONTUSION BRUISE: TOES	300	
1991I	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	FRONT END LOADER DRIVER	TIGHTENING	FRACTURE:LEG BELOW KNEE	14	
1991I	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MACHINE GREASER/OILER	TIGHTENING	FRACTURE:COLAR BONE(CLAVIC)	160	
1991I	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	LACK OF CLEARANCE(OBSTRUCTION)	S.CAR/LHD/SCOOP DRIVER/CREW	DRIVE/OPERATE T.LESS VEHICLE	LACERATION: ARM(HUMERUS)	469	
1991I	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	S.CAR/LHD/SCOOP DRIVER/CREW	PULLING	CONTUSI. BRUISE:FOOT(TEX.TOES)	21	
1991I	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	LASHER	CLOSING/OPENING DOORS	AMPUTATION: 1 FINGER	14	
1991I	CONV.BELT(OTHER ACCID)	LONGWALL (COAL)	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	INSTALLING EQUIPMENT/MACHINERY	AMPUT.(SINGLE FINGER)	300	
1991I	CONV.BELT(TAIL PULLEY)	LONGWALL (COAL)	FAILURE TO COMP.WITH STANDARDS	CONV.BELT ATTENDANT	REMOVING EQUIPMENT/MACHINERY	FFRACTURE(LEG BEL.KNEE)	160	
1991I	CONV.BELT(BELT(TAIL PULLEY))	CONVEYOR ROAD (UG)	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	CLEANING(NOT EQUIP)/MACH/F/WALL	FFRACTURE:FORARM(RAD/JUL)	127	
1991I	CONV.BELT(BELT(TAIL PULLEY))	OTHER LOCATION	FAILURE TO COMP.WITH STANDARDS	LASHER	CLEANING(NOT EQUIP)/MACH/F/FOOT(WALL)	AMPUTATION: THUMB	600	
1991I	SCRAPER WINCH INST.(FACE)	CONVEYOR LOADING POINT	FAILURE TO SUPPLY PROPER TOOLS/EQUIP	PNEUMATIC DRILLER	HANDLING	AMPUTATION: 1 FINGER	300	
1991I	SCRAPER WINCH INST.(FACE)	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH STANDARDS	LABOURER	LASHING/SHOVELLING	CONTUSION BRUISE: ELBOW	14	
1991I	TRAILER DRAWN BY TRACTOR	BORD & PILLAR (FACE)	FAILURE TO USE SAFETY DEVICES ETC	LABOURER	DRIVE/OPERATE TRACKLESS VEHICLE	AMPUTATION: 2/MORE FINGERS	1200	
1991M	TRAILER DRAWN BY TRACTOR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	BOILERMAKER	RIDING((AS PASS/GUARD)).LESS VEHICLE	ABRASION:UNSPECIFIED BODY PART	20	
1991M	TRACTOR	RAISE OR WINZE	INADEQUATE/LACK OF/FENCING/GUARDING	FITTER	STANDING	FRACTURE: MULTR.PL. TRUNK+LEGS+ARMS	469	
1991I	TRACTOR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	PUSHING	FRACTURE: BELOW KNEE	160	
1991I	TRACTOR DRAWN BY TRACTOR	LONGWALL	LACK OF CAUTION/ALERTNESS		CONNECT/UNCOUPL. NOT ELEC/EQ/MACH ETC	FRACTURE: ANKLE	160	
1991I	TRACTOR DRAWN BY TRACTOR	TRAVELLING WAY (EXC.SHAFT)				FRACTURE: LEG BELOW KNEE	160	
1991I	CONTINUOUS MINER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR	REMOVING EQUIPMENT/MACHINERY	MULTIPLE INJ. ANKLE(CUNE)	160	
1991I	CONTINUOUS MINER	BORD & PILLAR CONVEYOR ROAD	FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR	HANGING/SUSPENDING	LACERATION: FOOT(EXC.TOES)	20	
1991I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	DRILLER	LIFT/LOWER/RAISING BY HAND	FRATURE: 1 FINGER	63	
1991I	SHUTTLE CAR	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR	SITTING	FRACTURE: LEG BELOW KNEE	160	
1991I	SHEARER	LONGWALL	INADEQUATE PREVENTIVE MAINTENANCE	MINER	PUSHING	AMPUTATION: 1 FINGER	300	
1991I	SHEARER	LONGWALL	FAILURE TO COMP.WITH STANDARDS	LABOURER				
1991I	ROOF BOLTER	BORD & PILLAR (FACE)	LACK OF ADEQUATE/SUITABLE TRAINING ETC	SKILLED LABOURER	CONNECT/UNCOUPLE EQUIP/MACH/HOSE	GASSING:UNSPECIFIED BODY PART	500	
1991I	ROOF BOLTER	BORD & PILLAR (FACE)	LACK OF ADEQUATE/SUITABLE TRAINING ETC	MACHINE OPERATOR	CARRYING	FFRACTURE: LEG BELOW KNEE	160	
1991I					DRILLING (HYDRAULIC)	FRATURE: 1 FINGER	63	
1991I					GUIDING	LACERATION: 1 FINGER	33	

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YEAR	CLASSIFICATION /CODE	CLASS OF PLACE	CAUSE OF ACCIDENT	OCCUPATION	ACTIVITY	INJURY	ALLOC. D.LOST
1991 CONTINUED:							
1991	SCRAPER WINCH INST.(FACE)	BORD & PILLAR (FACE) LOADING BOX (EXCL SHAFT)	FAILURE TO SUPPLY SAFETY DEVICES ETC FAILURE TO COMP.WITH STANDARDS	WINCH DRIVER MINERS ASSISTANT	REMOVE.OTHER THAN SUPP/EQ/MACH CLIMB UP/DOWN STRUCT/MACH/LADD.	FRACUTURE: ARM (HUMERUS) AMPUTATION: 2/MORE FINGERS	246 1200
1991	SCRAPER WINCH INST.(FACE)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	RECLAIMING SWEEPING/VAMPING	AMPUTATION: 1 FINGER	300
1991	SINGLE DRUM WINCH	TRAVEL WAY (EXCL SHAFT)	LAACK OF CAUTION/ALERTNESS	ELECTRO MECH./MILL/WRIGHT	RIDE ON VEHICLE(OTHER THAN TRACK/TYRE)	CONTUSI.BRUISE:KNEE JOINT ETC	14
1991	BICYCLE; PNEUMATIC TYRE	OTHER MACHIN.(NOT VEHICLE)	USE OF UNSUITABLE EQUIPMENT	LASHER	PULLING	FRACTURE: ABD+LUMB SPINE	374
1991	OVERHEAD CRANE	OTHER LOCATION	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	HOLDING	AMPUTATION: 1 FINGER	300
1991	MOBILE CRANE	FITTING SHOP(FITT.& TURN.)	FAILURE TO COMP.WITH STANDARDS	FITTER	LIFT/LOWER/RAISE WITH MACHINERY	MULTIPLE INJ. LEG BELOW KNEE	160
1991	PORT.POWER TOOL(COAL DRILL)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	DRAILLER	INSTALL(NOT SUPP/BARR/WALL/EQ/MACH	FRACTURE: THUMB	63
1991	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	RE-RAILING	AMPUTATION: 2/MORE FINGERS	1200
1991	BICYCLE (PNEUMATIC TYRE)	ROADWAY (UG)	INADEQUATE PREVENTIVE MAINTENANCE	MINER	RIDE(AS PASS/GUARD)T.LESS VEHICLE	OTHER INJ. KNEE JOINT/PAT	128
1991	PORT.POWER TOOL(HAND TOOL)	LONGWALL	FAILURE TO COMP.WITH STANDARDS	LABOURER	PULLING	FRACTURE: THUMB	63
1991	GATHERING ARM LOADER	BORD & PILLAR (FACE)	LAACK OF CAUTION/ALERTNESS	BOESMAN/ROCK.ARM SHOV.DRV	TRANSPORTING	CONTUSI.BRUISE: LEG BEL.KNEE	14
1992:							
1992	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	LIFT/LOWER/RAISE BY HAND	FRACTURE: 1 FINGER	63
1992	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	PIPES & TRACKS	LIFT/LOWER/RAISE BY HAND	AMPUTATION: 1 FINGER	300
1992	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	PULLING	FRACTURE: TOES 1/MORE	50
1992	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	C.CUTTER DRIVER/CREW	HANGING/SUSPENDING	FOREIGN BODY(SPLINTER)LEG	127
1992	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	PUSHING	MULTIPLE INJ. 2/MORE FINGERS	14
1992	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	CHANGING EQUIPMENT/MATERIAL	FRACTURE: 2/MORE FINGERS	63
1992	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	PUSHING	FRACTURE: LEG BELOW KNEE	63
1992	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	TRAMMING	FRACTURE: 1 FINGER	160
1992	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	RE-RAILING	FRACTURE: 1 FINGER	63
1992	HAND TRAMMED	BORD & PILLAR (FACE)	LAACK OF CAUTION/ALERTNESS	TRAMMER	PUSHING	AMPUTATION: THUMB	63
1992	HAND TRAMMED	ROADWAY (UG)	LAACK OF CAUTION/ALERTNESS	RAIL WORKER	PULLING	FRACTURE(FOREARM):RA/UL	600
1992	HAND TRAMMED	HAULAGE(INC FND.ROPE)	LAACK OF CAUTION/ALERTNESS	GENERAL LABOURER	INSTAL(NOT SUPP/BARR/WALL/EQ/MACH	LACERATION:THORAX(EXC.Spine)	127
1992	HAND TRAMMED	CONVEYOR LOADING POINT	LAACK OF CAUTION/ALERTNESS	ROCK DRILL MACHINE CREW	TRAMMING	MULTIP.INJ.UNSPEC.BODY PARTS	306
1992	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR	SITTING	CRUSHING INJ.THRAX	6000
1992	LOAD HAUL DUMP (LHD)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MINE SURVEYOR	ADJUSTING EQUIPMENT/MACHINERY	AMPUTATION: 1 FINGER	6000
1992	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	SCARF/LHD/SCOOP DRIVER/CREW	HANGING/SUSPENDING	FRACTURE: FOOT INC:TOES	300
1992	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	CONVEYOR BELT ATTENDANT	DRIVE/OPERATE TRACKLESS VEHICLE	AMPUTATION: THUMB	50
1992	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	LAACK OF CLEARANCE (OBSTRUCTION)	GENERAL OPERATOR	STANDING	MULTIPLE INJURY: ANKLE	600
1992	FRONT END LOADER	BORD & PILLAR (FACE)	FAILURE TO USE SAFETY DEVICES ETC	LABOURER	CONNECT/UNCOUPLE EQP/MACH/HOSES	CONTUSION BRUISE:PELVIC GIRD.	19
1992	FRONT END LOADER	SUB-STATION	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	STANDING	FRACTURE: LEG BELOW KNEE	160
1992	SCRAPER WINCH INST.(FACE)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	MAINTAINING/REPAIRING/SERVICING	MULTIPLE INJ.UNSP.BODY PARTS	6000
1992	SCRAPER WINCH INSTL.FACE	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LABOURER	LOADING/OFFLOADING	FRACTURE: THUMB	63
1992	SCRAPER WINCH INST.(FACE)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LABOURER	INSTALLING EQUIP/MACH/TOOLS	MULTIP.INJ.OTHER PARTS/TRUNK	63
1992	SCRAPER WINCH INST.(FACE)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LAASHER	OPERATING EQP/MACH/TOOLS	FRACTURE: ANKLE	186
1992	SCRAPER WINCH INSTL.FACE	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	LOADING/OFFLOADING	CONTUSION BRUI:UNSP.C. BODY	160
1992	TRACTOR	TRACTOR	TRAVELLING WAY(EXC. SHAFTS)	LABOURER	CONNECTING/UNCOUPLING VEHICLE	CRUSHING INJ.LEG BELOW KNEE	20
1992	TRACTOR	OTHER LOCATION	FAILURE TO COMP.WITH STANDARDS	TRACTOR DRIVER	WALKING TRAVELLING BY FOOT	FRACTURE(LEG BEL.KNEE)	160

NATAL TRANSPORT & MACHINERY ACCIDENTS 1988-1994 (CONTINUED)

YEAR /CODE	CLASSIFICATION	CLASS OF PLACE	CAUSE OF ACCIDENT	OCCUPATION	ACTIVITY	INJURY	ALLOC.	D.LOST
1992: CONTINUED								
1992	ROOFBOLTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	STANDING	FRACTURE:PELVIC GIRDLE/SAC	469	
1992	ROOFBOLTER	BORD & PILLAR (FACE)	ACK OF CAUTION/ALERTNESS	INSTRUCTOR	CHECK/INSPECT/EXAM.(NOT EQ/MACH/VEH)	FRACTURE: 2/MORE FINGERS	63	
1992	ROOFBOLTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR	ROTATING	AMPUTATION: 1 FINGER	300	
1992	ROOFBOLTER	BORD & PILLAR (FACE)	LACK OF CLEARANCE (OBSTRUCTION)	L.W.SHEARER OPERATOR/CREW	LOOSENING	LACERATION: ANKLE	14	
1992	ROOFBOLTER	BORD & PILLAR (FACE)	USE OF UNSUITABLE EQUIPMENT ETC	MOBILE R.BOLT MACH.OPERATOR	INSTALLING EQUIPMENT/MACHINERY	AMPUTATION: 1 FINGER	300	
1992	ROOFBOLTER	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	MACHINE OPERATOR	DRILLING (MECHANICAL)	OTHER INJ.EYES/ORBIT	42	
1992	COAL CUTTER	BORD & PILLAR FACE	FAILURE TO COMP.WITH STANDARDS	C.CUTTER DRIVER/CREW	RIDING(PASS/GUARD)TRACK/BOUND VEHIC	FRACTURE: THORACIC	62	
1992	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	C.CUTTER DRIVER/CREW	PULLING	FRACTURE: 2/MORE FINGERS	63	
1992	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	C.CUTTER DRIVER/CREW	DRIVE/OPERATE TR.BOUND VEHICLE	AMPUTATION: FOOT	2400	
1992	COAL CUTTER	BORD & PILLAR (FACE)	LACK OF ADEQUATE OR SUITABLE TRAINING	C.CUTTER DRIVER/CREW	HOLDING	AMPUTATION: 1 FINGER	300	
1992	OTHER MACHINERY(NOT VEHIC.)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	DRILLER	SITTING	FRACTURE: BOTH FEET	50	
1992	OTHER MACHINERY(NOT VEHIC.)	LONGWALL (COAL)	LACK OF CAUTION/ALERTNESS	L.W.SHEARER OPERATOR/CREW	REMOVE OTHER THAN SUPP/EQ/MACH	AMPUTATION: 1 FINGER	300	
1992	CONV.BELT(OTHER ACCID)	CONVEYOR LOADING POINT	FAILURE TO USE SAFETY DEVICES ETC	MINER	MOVE OTHER THAN SUPP/EQ/P/MACH	LACERATION(SING.FINGER)	33	
1992	ENDLESS ROPE HAULAGE	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR	MOVING OBJECTS	AMPUTATION: 1 FINGER	300	
1992	CONTINUOUS MINER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	INSTALLING EQUIPMENT/MACHINERY	FRACTURE: 1 FINGER	63	
1992	MOTOR VEHICLE(NOT CAR/LDV)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR	WALKING/TRAVELLING BY FOOT	CONTUSION BRUISE: THIGH	14	
1992	DRIVES/BELTS/CHAINS: CHAINS	LONGWALL	FAILURE TO COMP.WITH STANDARDS	PLANT OPERATOR	STANDING	AMPUTATION: 1 FINGER	300	
1992	SHEARER	LONGWALL	LACK OF CAUTION/ALERTNESS	L.W.SHEARER OPERATOR/CREW	MOVING OBJECTS	FRACTURE:LOWER JAW(TEETH/MAND)	152	
1992	ROPE BLOCK & TACKLE	CONVEYOR TRANSFER POINT	FAILURE TO COMP.WITH STANDARDS	BOESMAN/ROCK ARM SHOV.DR.	MOVING OBJECTS	FRACTURE: FOOT EXCL.TOES	50	
1992	TRUCK(NOT HAUL TRUCK)	CONVEYOR LOADING POINT	LACK OF CAUTION/ALERTNESS	TIP ASSISTANT/ATTENDANT	CLOSE/OPEN OTHER THAN DOORS/WALVES	AMPUTATION: 1 FINGER	300	
1992	BICYCLE (PNEUMATIC TYRE)	Roadway (UG)	USE OF UNSUITABLE EQUIPMENT	STOREKEEP/STOREMAN/ISSUER	RIDE ON VEHICLE OTHER THAN TRACK/TYRE	CONTUSION BRUISE: FOOT	14	
1992	OTHER LIFTING MACHINES	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH STANDARDS	FITTER AIDE	LIFT/LOWER/RAISE WITH MACHINE	AMPUTATION: 1 FINGER	300	
1993:								
1993	HAND TRAMMED	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	LASHER	TRAMMING	CONTUSION BRUISE:SHOULDER	15	
1993	HAND TRAMMED	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	LASHER	TRAMMING	FRATURE: BACK OF HAND+MET.	63	
1993	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	PUSHING	FRATURE: 1 FINGER	63	
1993	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	RE-RAILING	CONTUS.BRUS:MULT HEAD/NECK	300	
1993	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	LIFT/LOWER/RAISE BY HAND	AMPUTATION: 1 FINGER	31	
1993	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	HOLDING	FRATURE: 1 FINGER	63	
1993	HAND TRAMMED	BORD & PILLAR (FACE)	LACK OF ILLUMINATION/VISIBILITY	LASHER	STOPPING	AMPUTATION: 1 FINGER	63	
1993	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	PUSHING	FRATURE: BACK OF HAND+MET.	300	
1993	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LASHER	HOLDING	FRATURE: FOREARM(RAD/JL)	127	
1993	HAND TRAMMED	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	CARPENTERS ASSISTANT	TRAMMING	FRATURE: 2/MORE FINGERS	63	
1993	HAND TRAMMED	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	CASUAL LABOURER	TRAMMING	FRATURE: LEG BELOW KNEE	160	
1993	HAND TRAMMED	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	GENERAL LABOURER	PUSHING	AMPUTATION: 1 FINGER	300	
1993	HAND TRAMMED	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH STANDARDS	LASHER	LIFT/LOWER/RAISE BY HAND	AMPUTATION: 2/MORE FINGERS	1200	
1993	HAND TRAMMED	ROADWAY (UG)	LACK OF CAUTION/ALERTNESS	LASHER	HOLDING	FRATURE: LEG BELOW KNEE	160	
1993	LONGWALL	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH STANDARDS	LASHER	RE-RAILING	FRATURE: THUMB	63	
1993F	SHEARER	LONGWALL	INADEQUATE PREVENTIVE MAINTENANCE	MACHINE ATTENDANT/MINDER	DRIVE OPERATE T.LESS VEHICLE	CRUSHING INJ.MULT/HEAD/NECK	6000	
1993K	SHEARER	LONGWALL	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	LIFT/LOWER/RAISING BY HAND	MULTIP,INJ.ENTIRE BODY	6000	
1993K	SHEARER	LONGWALL	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	LIFT/LOWER/RAISING BY HAND	MULTIP,INJ.ENTIRE BODY	6000	

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YEAR /CODE	CLASSIFICATION	CLASS OF PLACE	CAUSE OF ACCIDENT	OCCUPATION	ACTIVITY	INJURY	ALLOC.	D.LOST
1993: CONTINUED								
1993I	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	C.CUTTER DRIVER/CREW	MOVING OBJECTS	LACERATION:UNSPEC.BODY PART	14	
1993I	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	C.CUTTER DRIVER/CREW	TRAMMING	FRACTURE: PELVIC GIRDLE	469	
1993I	COAL CUTTER	BORD & PILLAR (FACE)	LACK OF CLEARANCE (OBSTRUCTION)	C.CUTTER DRIVER/CREW	DRIVE/OPERATE TR.BOUND VEHICLE	BURN/STEAM/HOT)PELVIC GIRD.	21	
1993I	COAL CUTTER	GOAF	LACK OF CAUTION/ALERTNESS	SCRAPER WINCH DRIVER	HOLDER	AMPUTATION: 1 FINGER	300	
1993I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	PNEUMATIC DRILLER	WALKING/TRAVELLING BY FOOT	FRACTURE: LEG BELOW KNEE	160	
1993I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LOADING BOX & BIN ATTENDANT	HANDLING	FRACTURE: THIGH(FEMUR)	469	
1993I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	RIDE(AS PASS/GUARD)T.LESS VEHICLE	FRACTURE:SCULL/SCALP	152	
1993I	SHUTTLE CAR	GOAF	FAILURE TO COMP.WITH STANDARDS	S.CAR/LHD/Scoop DRIVER CREW	DRIVE/OPERATE T.LESS VEHICLE	CONTUSION:BRUISE:KNEE JOINT	14	
1993I	ROOFBOLTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MINER	HOLDER	AMPUTATION: 1 FINGER	1200	
1993I	ROOFBOLTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MOBILE R.BOLT MACH.OPERATOR	SITTING	AMPUTATION:TOES 1/MORE	300	
1993I	TRAILER DRAWN BY TRACTOR	TRAVELLING WAY(EXC. SHAFT)	FAILURE TO COMP.WITH STANDARDS	ROCK DRILL MACHINE CREW	MAINTAINING/REPAIRING/SERVICING	FRACTURE: LEG BELOW KNEE	160	
1993I	TRAILER DRAWN BY TRACTOR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	LOADING BOX/BIN ATTENDANT	WALKING/TRAVELLING BY FOOT	DISLOCATION: COLLAR BONE	60	
1993I	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	RIDE(AS PASS/GUARD)T.LESS VEHICLE	FRACTURE:PELVIC GIRDLE	469	
1993I	LOAD HAUL DUMPER (LHD)	HAULAGE(INC. ENDLESS ROPE)	FAILURE TO COMP.WITH STANDARDS	LABOURER	CLEARING OBSTRUCTION	AMPUTATION: 1 FINGER	300	
1993I	OTHER MACHINERY(NOT VEHIC)	LONGWALL	INADEQUATE(LACK OF)FENCING/GUARDING	GENERAL LABOURER	DRIVE/OPERATE T.LESS VEHICLE	AMPUTATION: 2/MORE FINGERS	1200	
1993I	OTHER MACHINERY(NOT VEHIC)	LONGWALL	FAILURE TO COMP.WITH STANDARDS	L.W.SHEARER OPERATOR/CREW	HANDLING	AMPUTATION: 1 FINGER	300	
1993I	DRIVES/BELTS/CHAINS: CHAIN	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH STANDARDS	ELECTRICIAN	INSTALL/SUPP/BARRS/WALL	AMPUTATION: 2/MORE FINGERS	1200	
1993I	PORT/POWER TOOL(HAND TOOL)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LOADING BOX & BIN ATTENDANT	STANDING	AMPUTATION: LEG BELOW KNEE	2400	
1993I	OTHER TRACK BOUND VEHICLE	LONGWALL	FAILURE TO COMP.WITH STANDARDS	CHARGING UP	CHARGING UP	LACERATION: 1 FINGER	33	
1993I	CONTINUOUS MINER	GOAF	FAILURE TO COMPLY WITH STANDARDS	FITTER AIDE	REMOVING OTHER THAN SUPP/FEQ/MACH	MULTIPLE INJ.TO 1 HAND	63	
1993I				C.MINER DRIVER/CREW	STANDING	LACERATION: ANKLE	41	
1994:								
1994I	HAND TRAMMED	GOAF	FAILURE TO COMP.WITH STANDARDS	LASHER	PULLING	FRACTURE: SCULL/SCALP	152	
1994I	HAND TRAMMED	GOAF	USE OF UNSUITABLE EQUIPMENT ETC	LASHER	TRAMMING	AMPUTATION: 1 FINGER	300	
1994I	HAND TRAMMED	GOAF	USE OF UNSUITABLE EQUIPMENT	LASHER	TRAMMING	AMPUTATION: 1 FINGER	300	
1994I	SHUTTLE CAR	GOAF	FAILURE TO COMP.WITH STANDARDS	S.CAR/LHD/Scoop DRIVER/CREW	DRIVE/OPERATE T.LESS VEHICLES	FFRACTURE: ARM(HUMERUS)	246	
1994I	COAL CUTTER	HAULAGE(INC. ENDLESS ROPE)	LACK OF CAUTION/ALERTNESS	GENERAL LABOURER	STANDING	FFRACTURE: LEG BELOW KNEE	160	
1994I	COAL CUTTER	GOAF	LACK OF CLEARANCE (OBSTRUCTION)	MINE LABOURER	TRANSPORTING	FFRACTURE: FOOT(EXC. TOES)	50	
1994I	TRACTOR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	C.CUTTER DRIVER/CREW	OPERATING EQUIP/MACH/TOOLS	FFRACTURE: FOREARM(RAD/L)	127	
1994I	TRAILER, UNCOUPLED	ROADWAY (UG)	INADEQUATE PREVENTIVE MAINTENANCE	GENERAL LABOURER	RIDE(PASS/GUARD)T.LESS VEHICLE	FFRACTURE: TOES 1/MORE	50	
1994I	TRAILER DRAWN BY TRACTOR	OTHER W.SHOP(NOT REP.SHOP)	LACK OF STANDARDS/PROCEDURES	DRILLER	STANDING	FFRACTURE:COLLAR BONE(CLAV)	186	
1994I	TRAILER UNCOUPLED	SHAFT BOTTOM (EXC. SINK SHAFT)	LACK OF CAUTION/ALERTNESS	TRACTOR DRIVER	WALKING/TRAVELLING BY FOOT	FRATURE: LEG BELOW KNEE	160	
1994I	BICYCLE:PNEUMATIC TYRE	SHAFT BOTM(EXCL SINK SHAFT)	FAILURE TO COMP.WITH STANDARDS	MINE SHIFT BOSS	LIFT/LOWER/RAISE WITH MACHINERY	SPRAIN/STRAIN ABD+LUMB SPINE	82	
1994I	ENDLESS ROPE HAULAGE	HAULAGE(INC.END.ROPE)	NO DATA CAPTURED	NO DATA	NO DATA	NO DATA CAPTURED		
1994I	CONV.BELT TENSION CARRIAGE	CONVEYOR ROAD	FAILURE TO COMP.WITH STANDARDS	HAULAGE ATTENDANT	PUSHING	FFRACTURE:FOREARM(RAD/L)	127	
1994I	HAULTRUCK(0-9t)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	ADJUSTING EQUIPMENT/MACHINERY	FFRACTURE: KNEE JOINT/PAT	469	
1994I	SCRAPER WINCH INST.(FACE)	GOAF	FAILURE TO COMP.WITH STANDARDS	S.CAR/LHD/Scoop DRIVER/CREW	DRIVE/OPERATE T.LESS VEHICLE	AMPUTATION: 1 FINGER	300	
1994I				LASHER	CLEARING OBSTRUCTIONS	AMPUTATION: 1 FINGER	300	

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1988:								
1988F	SHUTTLE CAR	ROADWAY (UG)	LACK OF ADEQUATE/SUITABLE TRAINING	C.CUTTER DRIVER/CREW	CRUSHING INJ.MULTI TO TRUNK	6000		
1988F	SHUTTLE CAR	ROADWAY (UG)	LACK OF CAUTION/ALERTNESS	ELECTRICIAN	CRUSHING IN/L THORACIC/CHEST	6000		
1988M	SHUTTLE CAR	OTHER LOCATION	INADEQUATE PREVENTIVE MAINTENANCE	ARTISAN HELPER	UNRELIABLE DATA(BEFORE 1/7/90)			
1988M	SHUTTLE CAR	OTHER LOCATION	INADEQUATE MAINTENANCE	RIGGER	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	PINCH BAR USER	CRUSHING IN/L PELVIC GIRD/SAC	469		
1988I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR	UNRELIABLE DATA(BEFORE 1/7/90)	469		
1988I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	ARTISAN HELPER	CONTUSION BRUISE:TOES 1/MORE	14		
1988I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	FRACURE: LEG BELOW KNEE	160		
1988I	SHUTTLE CAR	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	MINER	FRACURE: LEG BELOW KNEE	33		
1988I	SHUTTLE CAR	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS		FRACURE: LEG BELOW KNEE	160		
1988F	FRONT END LOADER	TRAVELLING WAY(EXC.SHAFT)	FAILURE TO COMP.WITH INSTRUCTIONS	PUMP ATTENDANT	FRACURE: MULTIPLE TO 1 HAND	63		
1988F	FRONT END LOADER	RAISE OR WINZE	FAILURE TO USE SAFETY DEVICES	CONT MINER DRIVER/CREW	FRACURE: SCULL/SCALP ETC	6000		
1988I	FRONT END LOADER	ROADWAY (UG)	INADEQUATE FENCING/GUARD	FITTER AIDE	CRUSHING INJ.SKULL & SCALP	6000		
1988I	FRONT END LOADER	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	LACERATION EAR(MAL/BARO ETC)	14		
1988I	FRONT END LOADER	BORD & PILLAR (FACE)	LACK OF STANDS/PROCEDURES	MACHINE OPERATOR	LACERATION EAR(MAL/BARO ETC)	14		
1988I	FRONT END LOADER	BORD & PILLAR (FACE)	FAILURE TO USE SAFETY DEVICES	FITTER & TURNER	CONTUS/BRUISE:LEG BEL/KNEE	14		
1988I	FRONT END LOADER	TRAVELLING WAY(EXC.SHAFT)	FAILURE TO COMP.WITH INSTRUCTIONS	BRICKLAYER	FRACURE: HEAD/NECK/TRUNK	186		
1988I	PERSON,TRANS.(NOT BUS)	TRAVELLING WAY	LACK OF CAUTION/ALERTNESS	COVEYOR BELT ATTENDANT	FRACURE: THIGH (FEMUR)	469		
1988M	PERSON,TRANS.(NOT BUS)	TRAVELLING WAY	LACK OF CAUTION/ALERTNESS	MOBILE R.B.MACHINE OPERATOR	FRACURE: 1 FINGER 63	469		
1988M	PERSON,TRANS.(NOT BUS)	TRAVELLING WAY	LACK OF CAUTION/ALERTNESS	MINER	AMPUTATION: 2/MORE FINGERS	1200		
1988I	PERSON,TRANS.(NOT BUS)	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	CONVEYOR BELT ATTENDANT	AMPUTATION: ENTIRE BODY	6000		
1988I	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	C.CUTTER DRIVER/CREW	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	FITTER AIDE	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	PNEUMATIC DRILLER	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	COAL CUTTER	OTHER LOCATION	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	LACK OF CLEARANCE (OBSTRUCTION)	TRACTOR DRIVER	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	TRACTOR	SHAFT BOTTOM(EXC.SHAFT)	INADEQUATE PREVENTIVE MAINTENANCE	TRACTOR DRIVER	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	TRACTOR	BORD & PILLAR (FACE)	LACK OF CLEARANCE (OBSTRUCTION)	TEAM LEADER	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	TRACTOR	TRAVELLING WAY(EXC.SHAFT)	FAILURE TO COMP.WITH STANDARDS	ARTISAN HELPER	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	TRACTOR DRAWN BY TRACTOR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	TRACTOR DRAWN BY TRACTOR	TRAVELLING WAY(EXC.SHAFT)	FAILURE TO USE SAFETY DEVICES ETC	MACHINE OPERATOR	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	ARTISAN HELPER	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	GATHERING ARM LOADER	ROADWAY (UG)	LACK OF CAUTION/ALERTNESS	G.ARM LOADER DRIVER/CREW	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	CONTINUOUS MINER	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	MINER	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	CONTINUOUS MINER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH INSTRUCTIONS	CONVEYOR BELT ATTENDANT	UNRELIABLE DATA(BEFORE 1/7/90)			
1988F	CONVEYOR BELT:SNUB PULLEY	CONVEYOR ROAD	FAILURE TO COMP.WITH INSTRUCTIONS	TIP ASSISTANT/ATTENDANT	UNRELIABLE DATA(BEFORE 1/7/90)			
1988F	OTHER MACHINERY(NOT VEHIC)	CONVEYOR LOADING POINT	LACK OF CAUTION/A FERTNESS	MINE LABOURER	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	OTHER MACHINERY(NOT VEHIC)	CONVEYOR LOADING POINT	LACK OF CAUTION/ALERTNESS	FITTER AIDE	UNRELIABLE DATA(BEFORE 1/7/90)			
1988F	LOCOMOTIVE(DIESEL)	TRAVELLING WAY(EXC.SHAFT)	FAILURE TO COMP.WITH STANDARDS	LOC.GUARD/TUMBLER POINTER	MULTIP IN/TRUNK/LEGS/ARMS	6000		
1988I	DRIVES,BELTS,CHAINS(CHAINS)	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH STANDARDS	TIP ASSISTANT/ATTENDANT	FRACURE:FOOT INC.TOES	50		
1988I	ENDLESS ROPE HAULAGE	HALLA GE(INC-ENDLESS ROPE)	FAILURE TO COMP.WITH STANDARDS	HAULAGE ATTENDANT	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	USE OF UNSUITABLE EQUIPMENT ETC	G.ARM LOADER DRIVER/CREW	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	MOTOR CYCLE	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	BUS DRIVER	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	PORT/POWER TOOL:(OTHER TOOL)	ROADWAY (UG)	FAILURE TO USE SAFETY DEVICES ETC	DIAMOND DRILL OPERATOR	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	UTILITY VEHICLE	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	ELECTRICIAN	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	BUS (MOTOR COACH)	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	MINE LABOURER	UNRELIABLE DATA(BEFORE 1/7/90)			
1988I	SHEARER	OTHER LOCATION	FAILURE TO COMP.WITH STANDARDS	DRILLER	UNRELIABLE DATA(BEFORE 1/7/90)			

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YEAR /CODE	CLASSIFICATION	CLASS OF PLACE	CAUSE OF ACCIDENT	OCCUPATION	ACTIVITY	INJURY	ALLOC.	D.LOST
1989:								
1989F	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	TIP ASSISTANT/ATTENDANT	UNRELIABLE DATA(BEFORE 1/7/90)	CRUSHIN INJ.ANTERIOR ABD.	6000	
1989I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	OPERATING EQUIP/MACH/TOOL SITTING	FRACURE: LEG BELOW KNEE	160		
1989I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR	LACERATION: LEG BELOW KNEE	41		
1989I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	FITTER AIDE	CRUSHING INJ.PELVIC GIRDLE	469		
1989I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	FITTERS AIDE	AMPUTATION: 1 FINGER	300		
1989I	SHUTTLE CAR	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	MINER	FRACURE: ANKLE	160		
1989I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	C.MINER DRIVER/CREW	AMPUTATION: ARM (HUMERUS)	4500		
1989I	SHUTTLE CAR	VEHICLE MAINTENANCE	FAILURE TO COMP.WITH STANDARDS	FITTER	FRACURE: THIGH (FEMUR)	469		
1989I	SHUTTLE CAR	VEHICLE MAINTENANCE	FAILURE TO COMP.WITH STANDARDS	LABOURER	MULTIPLE INJ.THORACIC(CHEST)	62		
					MULTIPLE INJ. ANKLE			
					FRACURE: LEG BELOW KNEE			
					AMPUTATION: 1 FINGER			
					FRACURE: THIGH(FEMUR)			
					FRACURE: SKULL & SCALP(OCC)			
					LACERATION: TOES EXC.FOOT			
					MULTIPLE INJURY: 1 HAND			
					63			
1989I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LABOURER	UNRELIABLE DATA(BEFORE 1/7/90)	CRUSHING INJ HEAD+FACE+NECK	6000	
1989I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	GARM LOADER DRIVER	UNRELIABLE DATA(BEFORE 1/7/90)	CRUSHING INJ.LEG BELOW KNEE	160	
1989I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	ARTISAN HELPER	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: 1 FINGER	300	
1989F	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	GARM LOADER DRIVER/CREW	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE: ANKLE(CUNI)	469	
1989I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	DRILLER	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: TOES 1/MORE	6000	
1989I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	GARM LOADER DRIVER/CREW	UNRELIABLE DATA(BEFORE 1/7/90)	CRUSHING INJ. 1 FINGER	63	
					CRUSHING INJ. THUMB			
					AMPUTATION: THUMB			
					SPRAIN/STRAIN: ANKLE			
					SPRAY/FRACURE: ANKLE			
					CONTUS.BRUISE:LEG BELOW KNEE			
					FRACURE: LEG BELOW KNEE			
1989F	OTHER MACHINERY(NOT VEHIC)	LONGWALL	FAILURE TO USE SAFETY DEVICES	ELECTRICIAN	UNRELIABLE DATA(BEFORE 1/7/90)	CRUSHING INJ HEAD+FACE+NECK	6000	
1989I	OTHER MACHINERY(NOT VEHIC)	LONGWALL	USE OF UNSUITABLE EQUIPMENT ETC	L.W.SHEARER OPERATOR/CREW	UNRELIABLE DATA(BEFORE 1/7/90)	CRUSHING INJ.LEG BELOW KNEE	160	
1989I	OTHER MACHINERY(NOT VEHIC)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MOBILE R.B.MACHINE OPERATOR	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: ANKLE	2400	
1989I	OTHER MACHINERY(NOT VEHIC)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MINERS ASSISTANT	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE: ANKLE(CUNI)	160	
1989I	OTHER MACHINERY(NOT VEHIC)	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: TOES 1/MORE	300	
1989I	OTHER MACHINERY(NOT VEHIC)	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	FITTER AIDE	UNRELIABLE DATA(BEFORE 1/7/90)	CRUSHING INJ. 1 FINGER	63	
1989I	OTHER MACHINERY(NOT VEHIC)	TRAVELLING WAY(EXC.SHAFT)	FAILURE TO COMP.WITH STANDARDS	LABOURER	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: THUMB	600	
					SPRAIN/STRAIN: ANKLE			
					SPRAY/FRACURE: ANKLE			
					CONTUS.BRUISE:LEG BELOW KNEE			
					FRACURE: LEG BELOW KNEE			
1989I	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	BRICKLAYER	UNRELIABLE DATA(BEFORE 1/7/90)	CRUSHING INJ HEAD+FACE+NECK	6000	
1989I	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	UNRELIABLE DATA(BEFORE 1/7/90)	CRUSHING INJ.LEG BELOW KNEE	160	
1989I	LOAD HAUL DUMPER (LHD)	CONVEYOR ROAD	FAILURE TO COMP.WITH STANDARDS	MINE LABOURER	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: 1 FINGER	14	
1989I	FRONT END LOADER	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	FRONT END LOADER DRIVER	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE: SCULL & SCALP	160	
1989F	FRONT END LOADER	DECLINE	FAILURE TO COMP.WITH STANDARDS	U.G.OFFICIAL	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE: FOREARM(RAD/JLN)	127	
1989I	FRONT END LOADER	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	FRONT END LOADER DRIVER	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: THUMB	600	
1989I	FRONT END LOADER	LONGWALL	LACK OF STANDARDS/PROCEDURES	DRILLER	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: 1 FINGER	300	
1989I	FRONT END LOADER	LONGWALL	FAILURE TO COMP.WITH STANDARDS	MOBILE R.BOLT OPERATOR	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE: 1 FINGER	63	
1989I	FRONT END LOADER	LONGWALL	LACK OF SYSTEMS/FACILITIES	MOBILE R.BOLT OPERATOR	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE:PELVIC GIRDLE	469	
1989I	ROOFBOLTER	BORD & PILLAR (FACE)	INADEQUATE EXAM/INSPECT/TEST	MOBILE R.BOLT OPERATOR	UNRELIABLE DATA(BEFORE 1/7/90)	CRUSHING INJ.MULTI.TO 1 HAND	63	
1989I	ROOFBOLTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MOBILE R.BOLT OPERATOR	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: 1 FINGER	300	
1989I	ROOFBOLTER	BORD & PILLAR (FACE)	LACK OF STANDARDS/PROCEDURES	MOBILE R.BOLT OPERATOR	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE: LEG BELOW KNEE	160	
1989I	ROOFBOLTER	TRAVELLING WAY(EXC.SHAFT)	FAILURE TO COMP.WITH STANDARDS	MOBILE R.BOLT OPERATOR	UNRELIABLE DATA(BEFORE 1/7/90)	CONTUSION BRUISE:TOES 1/MORE	14	
1989I	CONVEYOR BELT: IDLER	CONVEYOR ROAD	LACK OF CAUTION/ALERTNESS	FITTER AIDE	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE:PELVIC GIRDLE	469	
1989I	CONVEYOR BELT: HEAD PULLEY	CONVEYOR DISCHARGE POINT	FAILURE TO COMP.WITH STANDARDS	CONVEYOR BELT ATTENDANT	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE: LEG BELOW KNEE	469	
1989I	CONVEYOR BELT: HEAD PULLEY	OTHER W.SHOP(NOT REP.BAYS)	FAILURE TO COMP.WITH STANDARDS	ARTISAN HELPER	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE: THIGH (FEMUR)	63	
1989I	TRAILER DRAWN BY TRACTOR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	MINE LABOURER	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE: FOREARM(RAD/JLN)	127	
1989I	TRACTOR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE: THIGH (FEMUR)	469	
1989I	COAL CUTTER	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	CONSTRUCTION WORKER UG	UNRELIABLE DATA(BEFORE 1/7/90)	CRUSHING INJ.MULTIPLE TRUNK	6000	
1989I	COAL CUTTER	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: 2 LOWER LIMBS	6000	
1989F	OTHER MECHANICAL LOADER	Haulage(INC. ENDLESS ROPE)	FAILURE TO COMP.WITH STANDARDS	DRILLER	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: 1 FINGER	300	
1989I	LOCO.DRAWN VEHICLE:(OTHER)	CONVEYOR ROAD	LACK OF CAUTION/ALERTNESS	LOCO. GUARD/TUMBLER POINTER	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE: LEG BELOW KNEE	160	
1989I	DRIVES,BELTS,CHAINS:(OTHER)	CONVEYOR ROAD	FAILURE TO COMP.WITH STANDARDS	CONVEYOR BELT ATTENDANT	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE: LEG BELOW KNEE	160	
1989I	MOBILE CRANE	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	TRACTOR DRIVER	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE: LEG BELOW KNEE	160	
1989I	UTILITY VEHICLE	ROADWAY (UG)	LACK OF CAUTION/ALERTNESS	DRILLER	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE: LEG BELOW KNEE	160	
1989I	LIGHT DELIV. VEHICLE	ROADWAY (UG)	LACK OF CAUTION/ALERTNESS	LORRY DRIVER	UNRELIABLE DATA(BEFORE 1/7/90)	FRACURE: LEG BELOW KNEE	160	

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1989: CONTINUED

1989I	HYDRAULIC DRILL RIG	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MINE LABOURER	FRACTURE: ANKLE(CUNI)	160
1989I	HYDRAULIC DRILL RIG	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	ARTISAN HELPER	AMPUTATION: 1 FINGER	300
1989I	CONTINUOUS MINER	CONVEYOR ROAD	LACK OF ADEQUATE/SUITABLE TRAINING	C. MINER DRIVER/CREW	FRACTURE: PELVIC GIRDLE	469
1989I	OTHER LIFTING MACHINE	TRAVELLING WAY(EXC. SHAFT)	FAILURE TO COMP.WITH INSTRUCTIONS	GENERAL LABOURER	FRACTURE: UPPER/LOWER LIMBS	469
1989I	BICYCLE; PNEUMATIC TYRE		LACK OF CLEARANCE (OBSTRUCTION)	FITTER	FRACTURE: LOWER JAW	152
1990:						
1990I	CONVEYOR BELT TAIL PULLEY	CONVEYOR ROAD	MAINTAINING/REPAIRING/SERVING	MULTIPLE INJ. 1 FINGER	63	
1990I	CONVEYOR BELT: OTHER ACCID.	CONVEYOR ROAD (UG)	LOOSENING	AMPUTATION: 1 FINGER	300	
1990I	CONVEYOR BELT: TENS CARRIAGE	CONVEYOR TRANSFER POINT	TIGHTENING	AMPUTATION: 2/MORE FINGERS	1200	
1990I	CONVEYOR BELT: TAIL PULLEY	CONVEYOR TRANSFER POINT	ADJUSTING EQUIPMENT/MACHINERY	LACERATION: 1 FINGER	33	
1990I	CONVEYOR BELT: IDLER	CONVEYOR LOADING POINT	UNRELIABLE DATA(BEFORE 1/7/90)	FRACTURE: THUMB	63	
1990I	CONVEYOR BELT: TAIL PULLEY	CONVEYOR LOADING POINT	CLEANING EQUIPMENT/MACHINERY	FRACTURE: ARM (HUMERUS)	246	
1990I	CONVEYOR BELT: TAIL PULLEY	CONVEYOR LOADING POINT	CLEANING EQUIPMENT/MACHINERY	FRACTURE: ARM (HUMERUS)	246	
1990I	CONVEYOR BELT(TAIL PULLEY)	BORD & PILLAR (FACE)	KICKING	FRACTURE: ANKLE (CUNE)	160	
1990I	CONVEYOR BELT: OTHER ACCID.	OTHER LOCATION	CLEANING NOT EQP/MACH/FOOTWALL	AMPUTATION: 1 FINGER	300	
1990I	TRAILER DRAWN BY TRACTOR	CONVEYOR ROAD	LOADING/OFFLOADING	FRACTURE: LEG BELOW KNEE	160	
1990I	TRAILER DRAWN BY TRACTOR	VEHICLE MAINTENANCE	UNRELIABLE DATA(BEFORE 1/7/90)	ABRASION: FOOT(Exc. TOES)	14	
1990I	TRAILER DRAWN BY TRACTOR	ROADWAY (UG)	CONNECTING/UNCOPPLING VEHICLE	FRACTURE: FOOT INC. TOES	50	
1990I	TRAILER DRAWN BY TRACTOR	BORD & PILLAR (FACE)	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: TOES 1/MORE	300	
1990I	LOAD HAUL DUMPER (LHD)	TRAVELLING WAY(EXC. SHAFT)	UNRELIABLE DATA(BEFORE 1/7/90)	CRUSHING INJ/2/MORE FINGERS	63	
1990I	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	DRIVE/OPERATE T.LESS VEHICLE	FRACTURE: PELVIC GIRDLE/SAC	469	
1990I	LOAD HAUL DUMPER (LHD)	INCLINED SHAFT	CONNECTING/UNCOPPLING VEHICLE	OTHER INJ.USPEC.BODY PART	19	
1990F	GATHERING ARM LOADER	BORD & PILLAR (FACE)	STANDING	AMPUTATION: LEG BELOW KNEE	2400	
1990I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	TRAMMING	MULTIPLE INJ.TO TRUNK	6000	
1990F	SHUTTLE CAR	CONVEYOR LOADING POINT	WALKING/TRAVELLING BY FOOT	CONTUS.BRU.TRUNK/LOWER LIMB	31	
1990F	SHUTTLE CAR	BORD & PILLAR (FACE)	UNRELIABLE DATA(BEFORE 1/7/90)	MULTIPLE INJ.THORACIC(CHEST)	6000	
1990F	SHUTTLE CAR	BORD & PILLAR (FACE)	CHARGING UP	LACERATION: THORACIC(CHEST)	6000	
1990I	SHUTTLE CAR	BORD & PILLAR (FACE)	UNRELIABLE DATA(BEFORE 1/7/90)	MULTIP.INJ.HEAD/FACE/NECK	6000	
1990I	SHUTTLE CAR	BORD & PILLAR (FACE)	WALKING TRAVELLING BY FOOT	FRACTURE: ELBOW	246	
1990I	SHUTTLE CAR	BORD & PILLAR (FACE)	DRIVE/OPERATE T.LESS VEHICLE	FRACTURE: TRUNK+UPPER LIMBS	269	
1990I	SHUTTLE CAR	BORD & PILLAR (FACE)	STANDING	FRACTURE: THORACIC (CHEST)	62	
1990I	SHUTTLE CAR	BORD & PILLAR (FACE)	TURNING ON/OFF	FRACTURE: PELVIC GIRDLE/SAC	469	
1990I	SHUTTLE CAR	BORD & PILLAR (FACE)	SITTING	FRACTURE: ANKLE(CUNI)	160	
1990I	SHUTTLE CAR	ROADWAY (UG)	CONNECT/UNCOUPLE EQUIP/MACH/HOSE	OTHER INJ.USPEC.BODY PART	19	
1990I	SHUTTLE CAR	ROADWAY (UG)	SITTING	FRACTURE: LEG BELOW KNEE	160	
1990I	SHUTTLE CAR	CONVEYOR LOADING POINT	CONNECT/UNCOUPLE EQUIP/MACH/HOSE	FRACTURE: LEG BELOW KNEE	160	
1990I	SHUTTLE CAR	VEHICLE MAINTENANCE	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: 2/MORE FINGERS	1200	
1990I	ROOFBOLTER	BORD & PILLAR (FACE)	MAINTAINING/REPAIRING/SERVING	FRACTURE: FACE UPP.JAW	152	
1990I	ROOFBOLTER	BORD & PILLAR (FACE)	UNRELIABLE DATA(BEFORE 1/7/90)	FFRACTURE: TOES 1/MORE	50	
1990I	ROOFBOLTER	BORD & PILLAR (FACE)	UNRELIABLE DATA(BEFORE 1/7/90)	FFRACTURE: 2/MORE FINGERS	63	
1990I	ROOFBOLTER	BORD & PILLAR (FACE)	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: 1 FINGER	300	
1990I	HYDRAULIC DRILL RIG	BORD & PILLAR (FACE)	UNRELIABLE DATA(BEFORE 1/7/90)	FRACTURE: ARM (HUMERUS)	246	
1990I	HYDRAULIC DRILL RIG	BORD & PILLAR (FACE)	UNRELIABLE DATA(BEFORE 1/7/90)	FRACTURE: FOREARM	127	
1990F	TRACTOR	ROADWAY (UG)	DRILLING(MECHANICAL)	FRACTURE: FOOT INC. TOES	50	
1990K	TRACTOR	TRAVELLING WAY(EXC. SHAFTS)	RIDE(PASS/GUARD).T.LESS VEHICLE	MULTIPLE INJ. TO TRUNK	6000	
1990K	TRACTOR	TRAVELLING WAY(EXC. SHAFTS)	UNRELIABLE DATA(BEFORE 1/7/90)	MULTIP.INJ.HEAD+FACE	6000	
1990K	COAL CUTTER	BORD & PILLAR (FACE)	UNRELIABLE DATA(BEFORE 1/7/90)	MULTIP.INJ.LUMB.SPINE	374	
1990K	COAL CUTTER	BORD & PILLAR (FACE)	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: 1 FINGER	300	
1990K	COAL CUTTER	BORD & PILLAR (FACE)	UNRELIABLE DATA(BEFORE 1/7/90)	-	-	

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1990: CONTINUED

1990I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	GARM LOADER DRIVER/CREW	GUIDING	LACERATION:WHOLE LOW LIMB	41
1990I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	LACK OF SYSTEMS/FACILITIES	TEAM LEADER DRIVER/CREW	CONNECTING/UNCOUPLING VEHICLE	CRUSHING INJ. THUMB	63
1990I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	GARM LOADER DRIVER/CREW	CONNECTING/UNCOUPLING VEHICLE	CRUSHING INJ/SKULL & SCALP	152
1990I	OTHER MACHINERY (NOT VEHIC)	LONGWALL	LACK OF CAUTION/ALERTNESS	MINE SHIFT BOSS	OPERATING EQUIP/MACH/TOOLS	FRACTURE: ANKLE (CUNE)	160
1990I	OTHER MACHINERY (NOT VEHIC)	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH STANDARDS	CONSTRUCTION WORKER	STANDING	CRUSHING INJ/TOES /MORE	50
1990I	OTHER MACHINERY (NOT VEHIC)	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH STANDARDS	ARTISAN HELPER	CHANGING EQUIPMENT/MATERIAL	MULTIP INJ/HEAD+FACE+NECK	469
1990I	OTHER MACHINERY (NOT VEHIC)	FITTING SHOP(FT. & TURN)	FAILURE TO COMP.WITH STANDARDS	FITTER AIDE	UNRELIABLE DATA(BEFORE 1/7/90)	FRACTURE: TOES 1/MORE	50
1990I	OTHER MACHINERY (NOT VEHIC)	BOIL/MAKER/WELDING SHOP	FAILURE TO COMP.WITH STANDARDS	MECHANIC	GRINDING	AMPUTATION: THUMB 600	50
1990I	OTHER MACHINERY (NOT VEHIC)	LONGWALL	LACK OF CAUTION/ALERTNESS	GENERAL LABOUR	CONNECT/UNCOUPLE EQUIP/MACH/HOSE	AMPUTATION: 1 FINGER	300
1990I	OTHER MACHINERY (NOT VEHIC)	INCLINED SHAFT	LACK OF CAUTION/ALERTNESS	FITTER AIDE	LOOSENING	AMPUTATION: 1 FINGER	300
1990I	PORT/POWER TOOL: OTHER TOOL	RETURN AIRWAY	FAILURE TO SUPPLY SAFETY DEVICES ETC	MOBILE R BOLT OPERATOR	DRILLING(HYDRAULIC)	AMPUTATION: 1 FINGER	300
1990I	PORT/POWER TOOL: HAND TOOL	CONVEYOR ROAD	LACK OF CAUTION/ALERTNESS	TEAM LEADER	SPLICING	FRATURE: 1 FINGER	63
1990I	BUS (MOTOR COACH)	ROADWAY (UG)	LACK OF CAUTION/ALERTNESS	TEAM LEADER	RIDE(PASS/GUARD) TRACKLESS VEHICLE	LACERATION:FOOT INC. TOES	20
1990I	BUS (MOTOR COACH)	ROADWAY (UG)	USE OF UNSUITABLE EQUIPMENT ETC	DRILLER	UNRELIABLE DATA(BEFORE 1/7/90)	CONTUSION BRUISE: THIGH	14
1990I	FRONT END LOADER	TRAVELLING WAY(EXC. SHAFT)	LACK OF CLEARANCE (OBSTRUCTION)	FRONT END LOADER DRIVER	DRIVE/OPERATE TRACKLESS VEHICLE	FRATURE:WHOLE OF LOW LIMB	469
1990I	FRONT END LOADER	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR	DRIVE/OPERATE TRACKLESS VEHICLE	MULTIPLE INJ/TRUNK+LOW LIMB	469
1990I	FRONT END LOADER	TRAVELLING WAY(EXC. SHAFTS)	FAILURE TO COMP.WITH STANDARDS	FITTER	CONNECTING/UNCOUPLING VEHICLE	AMPUTATION: 2/MORE FINGERS 1200	
1990F	CONTINUOUS MINER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	C.MINER DRIVER/CREW	WALKING/TARVELLING BY FOOT	MULTIPLE INJ/MULTIP. TRUNK	6000
1990I	CONTINUOUS MINER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MINER	WALKING/TARVELLING BY FOOT	CONTUSION BRUISE: THIGH	14
1990I	CONTINUOUS MINER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	C.MINER DRIVER/CREW	RESETTING	FRATURE:PELVIC GIRDLE/SAC	469
1990I	CHAINBLOCK(BLOCK & TACLE)	BORD & PILLAR (FACE)	LACK OF SYSTEMS/FACILITIES	GENERAL LABOURER	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: 1 FINGER	300
1990F	OTHER TRACK BOUND VEHICLE	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH STANDARDS	TIP ASSISTANT/ATTENDANT	STANDING	MULTIP INJ/TRUNK/LOWER LIMB	6000
1990I	HAND TRAMMED	TRAVELLING WAY(EXC. SHAFT)	FAILURE TO COMP.WITH STANDARDS	ARTISAN HELPER	SITTING	OTHER INJURY/UNSPEC. BODY	19
1990I	ROCK ARM SHOVEL(BOESMAN)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	GARM LOADER DRIVER	BARRING	CONTUS. BRUI:LEG BELOW KNEE	14
1990I	DRIVES,BELTS,CHAINS: V-BELT	SHAFT BOTTOM (EXC. SINK SHAFT)	FAILURE TO COMP.WITH STANDARDS	TRACTOR DRIVER	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: 1 FINGER	300
1990I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	PETROL FILL-STAT/GARATTEN.	DRIVE/OPERATE TRACK ROUND VEHICLE	FRATURE:PELVIC GIRDLE	469
1990I	UTILITY VEHICLE	TRAVELLING WAY(EXC. SHAFT)	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: 1 FINGER	300
1990I	OTHER TRANSPORTER	VERTICAL SHAFT BANK	LACK OF CAUTION/ALERTNESS	ELEVATOR OPERATOR(LIFTS)	CLOSING/OPENING DOORS	FRATURE:BACK OF HAND+MET.	63
1990I	PERSONN.TRANSP.(NOT BUS)	VEHICLE MAINTENANCE	FAILURE TO COMP.WITH STANDARDS	BUS DRIVER	PUMPING	FRATURE: THORACIC (CHEST)	62

1991:

1991F	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR	DRIVE/OPERATE TRACKLESS VEHICLE	OTHER INJU. BODY PARTS	6000
1991F	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	CONT.MINER DRIVER/CREW	WALKING/TRAVELLING BY FOOT	CRUSHING INJ. FOOT INC. TOES	50
1991I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR	TYING	FRATURE:PELVIC GIRDLE/SAC	469
1991I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LABOURER	HANDLING	FRATURE: ANKLE(CUNIF)	160
1991I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LABOURER	HANDLING	OTHER INJ.KNEE JOINT	128
1991I	HYDRAULIC DRILL RIG	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	ELECTRO MECH/MILLWRIGHT	WALKING/TRAVELLING BY FOOT	CRUSHING INJ. TOES 1/MORE	50
1991I	HYDRAULIC DRILL RIG	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	MINER	CLIMB(MOT EXCAV/STRU/CACH/LAD	MULTIPLE INJ. MULTIP. TRUNK	6000
1991I	HYDRAULIC DRILL RIG	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LABOURER	HANDLING	FRATURE: LEG BELOW KNEE	160
1991M	PERSON TRANSP.(NOT BUS)	TRAVELLING WAY EXC. SHAFT	FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR	WALKING/TRAVELLING BY FOOT	FRATURE: FOOT EXC. TOES	50
1991M	PERSON TRANSP.(NOT BUS)	STORE OR STORE YARD	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	LOADING/OFFLOADING	FRATURE: KNEE JOINT/PAT	469
1991I	FRONT END LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	LOADING/OFFLOADING	FRATURE: ARM (HUMERUS)	50
1991I	FRONT END LOADER	FRONT END LOADER	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	STANDING	FRATURE: STRAIN/KNEE JOINT	246

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1991: CONTINUED

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1991	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	STANDING	
1991	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	DRIVE/OPERATE TRACKLESS VEHICLE	
1991	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	REMOVING OTHER THAN SUPP/EQ/MACH	
1991	LOAD HAUL DUMPER (LHD)	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	WALKING/TRAVELLING BY FOOT	
1991F	COAL CUTTER	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	STANDING	
1991F	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	DRIVE/OPERATE TRACKLESS VEHICLE	
1991I	TRAILER DRAWN BY TRACTOR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	CONNECTING/UNCOUPLING VEHICLE	
1991I	TRAILER DRAWN BY TRACTOR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	CONNECTING/UNCOUPLING VEHICLE	
1991I	TRAILER DRAWN BY TRACTOR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	CONNECTING/UNCOUPLING VEHICLE	
1991I	TRAILER DRAWN BY TRACTOR	ROADWAY (UG)	LACK OF STANDARDS/PROCEDURES	MAINTAINING/REPAIRING/SERVICING	
1991I	TRAILER DRAWN BY TRACTOR	ROADWAY (UG)	LACK OF STANDARDS/PROCEDURES	GUIDING	
1991I	TRAILER DRAWN BY TRACTOR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	CONNECTING/UNCOUPLING VEHICLE	
1991I	TRACTOR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	RIDE(PASS/GUARD).T-LESS VEHICLE	
1991I	PORT POWER TOOL:HAND TOOL	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	MAINTAINING/REPAIRING/SERVICING	
1991I	POR.POWER TOOL: HAND TOOL	BORD & PILLAR (FACE)	INADEQUATE EXAM/INSPECT/TEST	MAINTAINING/REPAIRING/SERVICING	
1991I	CONTINUOUS MINER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	SITTING	
1991I	CONTINUOUS MINER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	LOADING/OFFLOADING	
1991I	CONTINUOUS MINER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	STANDING	
1991I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	INSTALLING SUPP/BARR/S/WALL	
1991I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS		
1991I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS		
1991I	BUS (MOTOR COACH)	ROADWAY (UG)	LACK OF SYSTEMS/FACILITIES		
1991I	BUS (MOTOR COACH)	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS		
1991I	LOCO DRAWN VEHICLE(HOPPER)	HAULAGE(INC-ENDLESS ROPE)	FAILURE TO COMP.WITH STANDARDS		
1991I	SHARER CONVEYOR BELT:TAIL PULLEY	LONGWALL	FAILURE TO COMP.WITH STANDARDS		
1991I	OTHER MACHINERY(NOT VEHIC)	CONVEYOR LOADING POINT	LACK OF CAUTION/ALERTNESS		
1991I	OTHER TRANSPORTER	BORD & PILLAR (FACE)	FAILURE TO USE SAFETY DEVICES ETC		
1991I	OTHER TRANSPORTER	VERTICAL SHAFT	FAILURE TO USE SAFETY DEVICES ETC		

1992:

1992F	SHUTTLE CAR	HAUL ROAD	LACK OF STANDARDS/PROCEDURES	MACHINE ATTENDANT/MINDER	SLINGING	
1992F	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	PNEUMATIC DRILLER	DILING (PNEUMATIC)	
1992I	SHUTTLE CAR	INCLINED SHAFT	INADEQUATE EXAM/INSPECT/TEST	ARTISAN HELPER	CLEARING OBSTRUCTION	
1992I	SHUTTLE CAR	BORD & PILLAR (FACE)	INADEQUATE SUPERVISION/DISCIPLINE	MACHINE OPERATOR	CONNECTING/DISCONNECTING ELECTRICITY	
1992I	SHUTTLE CAR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	MOBILE R.BOLTER OPERATOR	DRIVE OPERATE TRACKLESS VEHICLE	
1992I	SHUTTLE CAR	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	CONT:MINER DRIVER/CREW	LIFT/LOWER/RAISE BY HAND	
1992I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	FITTER	STANDING	
1992I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	C.MINER DRIVER/CREW	WALKING/LOWERING/RAISING BY HAND	
1992I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	C.MINER DRIVER/CREW	STANDING	
1992I	SHUTTLE CAR	BORD & PILLAR (FACE)	USE OF UNSUITABLE EQUIPMENT ETC	TEAM LEADER	WALKING/TRAVELLING BY FOOT	
1992I	SHUTTLE CAR	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH INSTRUCTIONS	GENERAL LABOURER	STANDING	
1992I	SHUTTLE CAR	BORD & PILLAR (FACE)	RENDERING SAFETY DEVICE INEFFECTIVE	S.CAR/LHD/SCOOP DRIVER/CREW	TESTING EQUIPMENT/MACHINERY	
1992I	ROOFBOLTER	BORD & PILLAR (FACE)	LACK OF SYSTEMS/FACILITIES	DRILLER	INSTALL SUPP/BARR/S/WALL	
1992I	ROOFBOLTER	BORD & PILLAR (FACE)	INADEQUATE FENCING/GUARDING	MOBILE R.R.MACHINE OPERATOR	REMOVING SUPPORT	
1992I	ROOFBOLTER	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	MOBILE OPERATOR	STANDING	

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1992I	ROOFBOLTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	C.MINER DRIVER/CREW MACHINE OPERATOR MOBILE R.B.MACHINE OPERATOR	OPERATING EQUIPMENT/MACHINERY/TOOLS INSTALLING/EQUIPMENT/MACHINERY DRILLING (MECHANICAL)	BURN:FACE UPPER JAW(ZYGO) AMPUTATION: 1 FINGER FRACTURE: 1 FINGER	14 300 63
1992I	ROOFBOLTER	BORD & PILLAR (FACE)	FAILURE TO USE SAFETY DEVICES ETC	FITTER GENERAL LABOURER	HOLDING INSTALLING SUPP/BARRIC/S.WALL	AMPUTATION: 1 FINGER AMPUTATION: TOES 1/MORE	300
1992I	HYDRAULIC DRILL RIG	BORD & PILLAR (FACE)	FAILURE OF STANDARDS/PROCEDURES	GENERAL LABOURER	TRAMMING		
1992I	HYDRAULIC DRILL RIG	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	BOESMAN/ROCKARM SHOV.DRV. FITTER	CHECK/INSPECT/EXAM.(NOT EQ/MACH/VEHIC CHANGING OTHER THAN EQUIP/MACH	FRACTURE: SCULL & SCALP FRACTURE: FOOT INC.TOES CRUSHING INJ. TOES 1/MORE	6000 50 50
1992F	CONTINUOUS MINER	BORD & PILLAR (FACE)	LACK OF ADEQUATE OR SUITABLE TRAINING	GENERAL LABOURER			
1992I	CONTINUOUS MINER	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	DRILLER	SOLDERING		
1992I	CONTINUOUS MINER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	ROCK DRILL MACHINE CREW ELECTRO MECH/MILLWRIGHT MINER	DRILLING (PNEUMATIC) REMOVING EQUIPMENT/MACHINERY STANDING	FRACTURE: FOOT EXC.TOES FRACTURE: 1 FINGER FRACTURE: LEG BELOW KNEE	300 50 63
1992I	PORT POWER TOOL:COAL DRILL	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	STANDING			
1992I	PORT POWER TOOL:ROCK DRILL	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	REMOVING OTHER THAN SUPP/EQIP/MACH			
1992I	PORT POWER TOOL:ROCK DRILL	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	REPLACING			
1992I	CONVEYOR BELT:HEAD PULLEY	CONVEYOR ROAD	FAILURE TO COMP.WITH STANDARDS	CHECK/INSPECT/EXAM EQUIP/MACH/VEHIC			
1992I	CONVEYOR BELT:OTHER ACCID.	CONVEYOR ROAD (UG)	FAILURE TO COMP.WITH STANDARDS	INSTALLING EQUIPMENT/MACHINERY			
1992I	CONVEYOR BELT:IDLER	CONVEYOR ROAD (UG)	USE OF UNSUITABLE EQUIPMENT ETC	CLEANING(NOT EQP/MACH/FOOTWALL)			
1992I	CONVEYOR BELT:OTHER ACCID.	FAN HOUSE OR CHAMBER	FAILURE TO COMP.WITH STANDARDS	STANDING			
1992I	CONVEYOR BELT:HAND PULLEY	OTHER LOCATION	FAILURE TO COMP.WITH INSTRUCTIONS	LOADING/OFFLOADING			
1992I	CONVEYOR BELT:OTHER ACCID.	INCLINED SHAFT T:WAY	FAILURE TO COMP.WITH STANDARDS	STANDING			
1992F	CHAINBLOCK(BLOCK & TACLE)	CONVEYOR ROAD (UG)	FAILURE TO COMP.WITH STANDARDS	FOREMAN ARTISAN HELPER	CRUSHING INJ/SCULL/SCALP FRACTURE: LEG BELOW KNEE		
1992I	CHAINBLOCK:	BLOCK & TACKLE	USE OF UNSUITABLE EQUIPMENT	STANDING	MULTIP;INJ/PELVIC GIRD/SAC	6000	
1992F	LOCOMOTIVE (DIESEL)	VERTICAL SHAFT STATION	FAILURE TO COMP.WITH STANDARDS	LOCOMOTIVE DRIVER	STANDING	160	
1992I	FRONT END LOADER	BORD & PILLAR (FACE)	LACK OF CLEARANCE (OBSTRUCTION)	GENERAL LABOURER	HANGING/SUSPENDING	6000	
1992I	TRACTOR	BORD & PILLAR (FACE)	INADEQUATE EXAM/INSPECT/TEST	LABOURER	LIFTING/LOWERING/RISING BY HAND		
1992I	TRACTOR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	TRACTOR DRIVER	STANDING		
1992I	TRACTOR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	TRACTOR DRIVER	STANDING		
1992I	TRACTOR DRAWN BY TRACTOR	ROADWAY (UG)	LACK OF CAUTION/ALERTNESS	GENERAL LABOURER	DRIVE OPERATE TRACKLESS VEHICLE		
1992I	OTHER TRANSPORTER	TRAVELLING WAY(EX.CHAFF)	FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER	CLIMB UP/DOWN STRUCT/MACH/LADDER		
1992I	OTHER TRANSPORTER	TRAVELLING WAY(EX.CHAFF)	FAILURE TO COMP.WITH STANDARDS	TRACTOR DRIVER	DRIVE/OPERATE T.LESS VEHICLE		
1992I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	G.ARM LOADER DRIVER/CREW	DRIVE OPERATE TRACKLESS VEHICLE		
1992I	LOCO DRAWN VEHICLE(HOPPER)	CROSSCUT/DRAWPOINT:C.CUT	FAILURE TO COMP.WITH STANDARDS	TRACTOR DRIVER	CONNECT/UNCOUPLE EQUIP/MACH/HOSES		
1992I	COAL CUTTER	TRAVELLING WAY(EX.CHAFF)	LACK OF CAUTION/ALERTNESS	TEAM LEADER	HANDLING		
1992I	LOAD HAUL DUMPER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	ELECTRO MECH/MILLWRIGHT	DRIVE OPERATE TRACKLESS VEHICLE		
1992I	OTHER LIFTING MACHINE	BORD & PILLAR (FACE)	LACK OF STANDARDS/PROCEDURES	TEAM LEADER	CONNECT/UNCOUPLE EQUIP/MACH/HOSES		
1992I	OTHER MACHINERY(NOT VEH)	BOILERMAKER/WELDING SHOP	FAILURE TO COMP.WITH STANDARDS	BOILERMAKER AIDE	STANDING		
1993:	SHUTTLE CAR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	INSTALLING EQUIPMENT/MACHINERY	OTHER INJ/OTHER PART TRUNK	14	
1993F	SHUTTLE CAR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	CLEANING EQUIPMENT/MACHINERY	FRACUTURE: THUMB	469	
1993F	SHUTTLE CAR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS	WALKING/TRAVELLING BY FOOT	FRACUTURE: ANKLE	63	
1993F	SHUTTLE CAR	VEHICLE MAINTENANCE	FAILURE TO COMP.WITH STANDARDS	DRIVE/OPERATE TRACKLESS VEHICLE	FRACUTURE: TOES 1/MORE	160	
1993I	SHUTTLE CAR	ROADWAY (UG)	LACK OF CAUTION/ALERTNESS	OPERATE/DRIVE STATIONARY MACHINERY	FRACUTURE: LEG BELOW KNEE	50	
1993I	BLASTER			SITTING	FRACUTURE: LEG BELOW KNEE	160	

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1993I	SHUTTLE CAR SHUTTLE CAR	CONVEYOR LOADING POINT BOARD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS LACK OF ADEQUATE/SUITABLE TRAINING	FITTER MOBILE R.B.MACHINE OPERATOR	CONNECT/UNCOUPLE NOT ELEC/EQ/HOSE/VEH DRIVE/OPERATE TRACKLESS VEHICLE	FRACUTURE:PELVIC GIRDLE/SAC FRACTURE: ELBOW 246	469
1993F	CONTINUOUS MINER CONTINUOUS MINER CONTINUOUS MINER CONTINUOUS MINER	Roadway (UG) Roadway (UG) Roadway (UG) Roadway (UG)	FAILURE TO COMP.WITH STANDARDS LACK OF CAUTION/ALERTNESS LACK OF CAUTION/ALERTNESS FAILURE TO COMP.WITH STANDARDS	S.CAR/LHD/SCOOP DRIVER/CREW C.MINER DRIVER/CREW FITTER AIDE	CLIMB UP/DOWN STRUC/MACH/LADDER CHANGING EQUIPMENT/MATERIAL THAMMING MAINTAINING/REPAIRING/SERVICING	CRUSHING INJ.TRUNK+LEG+ARM 6000 AMPUTATION: TOES 1/MORE 300 FRACTURE:THORACIC (CH/SP) 62	300
1993I	TRACTOR TRACTOR TRACTOR TRACTOR TRACTOR TRAILER DRAWN BY TRACTOR TRAILER DRAWN BY TRACTOR	Roadway (UG) Inclined shaft Roadway (UG) Roadway (UG) Inclined shaft travel way Personnel crush/trav.way Roadway (UG)	FAILURE TO COMP.WITH STANDARDS LACK OF CAUTION/ALERTNESS FAILURE TO COMP.WITH STANDARDS LACK OF CAUTION/ALERTNESS FAILURE TO COMP.WITH STANDARDS LACK OF CAUTION/ALERTNESS FAILURE TO COMP.WITH STANDARDS LACK OF CAUTION/ALERTNESS	COAL CUTTER DRIVER/CREW MECHANIC AIDE MECHANIC OPERATOR TRACTOR DRIVER BRICKLAYER Front end loader driver Locomotive driver	CLIMB UP/DOWN STRUC/MACH/LADDER WALKING/TRAVELLING BY FOOT DRIVE/OPERATE TRACKLESS VEHICLE DRIVE/OPERATE TRACKLESS VEHICLE LIFTING/LOWERING/RAISING BY HAND CLIMB UP/DOWN/STRUCT/MACH/LADDER REMOVING EQUIPMENT/MACHINERY	FRACUTURE:PELVIC GIRDLE/SAC FRACTURE: FOOT EXC.TOES 50 FRACTURE: NECK (THROAT) 152 LACERATION:KNEE JOINT/PAT. 22 FRACTURE: LEG BELOW KNEE 160 FRACTURE: ANKLE (CUNIF) 160 FRACTURE: TOES 1/MORE 50	469
1993I	LOAD HAUL DUMPER (LHD) LOAD HAUL DUMPER (LHD)	Roadway (UG) Other w.shop not rep.bay	FAILURE TO COMP.WITH STANDARDS FAILURE TO USE SAFETY DEVICES ETC	MECHANIC AIDE TRACTOR DRIVER	MAINTAINING/REPAIRING/SERVICING STANDING	FRACUTURE:SCULL/SCALP(OCCIP.) MULTIP,INJ.TRUNK/UP.LIMBS 269	152 269
1993I	COAL CUTTER COAL CUTTER COAL CUTTER COAL CUTTER	Board & pillar (face) Board & pillar (face) Board & pillar (face) Board & pillar (face)	LACK OF CAUTION/ALERTNESS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	C.CUTTER DRIVER/CREW GENERAL LABOURER MINERS ASSISTANT MACHINE OPERATOR	WATERING DOWN HOLDING TRAMMING CUTTING WITH TOOL	FRACUTURE:PELVIC GIRD/SAC, FRACTURE: 2/MORE FINGER 63 ABRASION: FOOT EXC.TOES 14 FRACTURE: FOOT (EXC.TOES) 50	469
1993I	ROOFBOLTER ROOFBOLTER	Board & pillar Board & pillar	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	GENERAL LABOURER C.MINER DRIVER/CREW	HOLDING CHECK/INSECT/EXAM EQUIP/MACH/HOSES	LACERATION: TOES 1/MORE LACERATION: PALM	20 33
1993I	HYDRAULIC DRILL RIG HYDRAULIC DRILL RIG	Board & pillar (face) Roadway (UG)	LACK OF CAUTION/ALERTNESS FAILURE TO COMP.WITH STANDARDS	FITTER TEAM LEADER	INSTALLING EQUIPMENT/MACHINERY STANDING	AMPUTATION: 1 FINGER FRACTURE: LEG BELOW KNEE	152 300
1993I	BUS (MOTOR COACH) BUS(MOTOR COACH)	Roadway (UG) haulage(inc.endless rope)	LACK OF CAUTION/ALERTNESS FAILURE TO COMP.WITH STANDARDS	TRACTOR DRIVER MACHINE OPERATOR	WALKING/TRAVELLING BY FOOT TRANSPORTING	FFRACTURE:PELVIC GIRDLE/SAC CONTUSION BRUISE:KNEE JOINT/PAT 14	469
1993I	OTHER MACHINERY(NOT VEH) OTHER MACHINERY(NOT VEHIC)	Development end Roadway (UG)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	MACHINE OPERATOR CONTRACTOR	LOADING/OFFLOADING CLEARING OBSTRUCTION	LACERATION:EXTERN.GENIT.AREA 35 AMPUTATION: 2/MORE FINGERS 1200	35 1200
1993F	LOCOMOTIVE (DIESEL)	Vertical shaft station	FAILURE TO COMP.WITH STANDARDS	Locomotive driver	DRIVE/OPERATE TRACK BOUND VEHICLE	MULTIP/INJ.HEAD/FACE/TRUNK 6000	469
1993F	Single drum winch	Inclined shaft station	FAILURE TO COMP.WITH STANDARDS	Mine shift boss	CONNECT/UNCOUPLE EQUIP/MACH/HOSES	MULTIPLE INJ. ENTIRE BODY 8000	469
1993I	bicycle:pneumatic tyre	travelling way	Lack of illumination/visibility	Miner	Ride on vehicle other than track/tyre	FRACUTURE:LEG BELOW KNEE 160	35
1993I	Port.power tool: coal drill	Board & pillar	Failure to comp.with standards	Driller	drilling (electrical)	FRACUTURE:2/MORE FINGERS 63	63
1993I	Other transporter	vertical shaft	Failure to comp.with standards	Front end loader driver	drive/operate trackless vehicle	Fracture: leg below knee 160	160
1993I	shearer	longwall	Lack of caution/alertness	Boilermaker aide	adjusting equipment/machinery	Fracture: forearm(rad/uln) 127	127
1993I	Personn.transp.(not bus)	travelling way(exc.shaff)	Failure to comp.with standards	General labourer	Ride(pass/guard)trackless vehicle	Amputation: 1 finger 300	300
1994:	Shuttle car	Roadway (UG)	Failure to comp.with standards	S.CAR/LHD/SCOOP DRIVER/CREW	Drive operate trackless vehicle	multiple inj. thoracic(chest) 6000	6000
1994F	Shuttle car	Roadway (UG)	Inadequate exam/inspect/test	Fitter	Pushing	Spainstrain:thora,(ches) 23	23
1994I	Shuttle car	Board & pillar (face)	Failure to comp.with standards	S.CAR/LHD/SCOOP DRIVER/CREW	Drive/operate trackless vehicle	Amputation: 1 finger 300	300
1994I	Shuttle car	Board & pillar (face)	Failure to comp.with standards	Fitter aide	removing equipment/machinery	Fracture: scull & scalp 152	152
1994I	Shuttle car	Board & pillar (face)	Failure to comp.with standards	Electro mach/millwright standing	fracture: leg below knee 160	Fracture: arm (humerus) 246	246
1994I	Shuttle car	Board & pillar (face)	Inadequate exam/inspect/test	S.CAR/LHD/SCOOP DRIVER/CREW	drive/operate trackless vehicle	other inj.knee joint/pat 128	128

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1994I	SHUTTLE CAR	BORD & PILLAR (FACE) VEHICLE MAINTENANCE	INADEQUATE EXAM/INSPECT/TEST FAILURE TO COMP.WITH STANDARDS	FITTER S.CAR/LHD/SCOOOP DRIVER/CREW	MAINTAINING/REPAIRING/SERVICING MAINTAIN/REPAIR/SERVICING	AMPUTATION: THUMB 600 FRACTURE: 1 FINGER	63
1994F	LOAD HAUL DUMPER (LHD)	INCLINED SHAFT TRAV.WAY HAUL ROAD	INADEQUATE EXAM/INSPECT/TEST FAILURE TO COMP.WITH STANDARDS	S.CAR/LHD/SCOOOP DRIVER/CREW FRONT END LOADER DRIVER	DRIVE/OPERATE TRACKLESS VEHICLE CONNECT/UNCOUPLE EQUIP/MACH/HOSES	MULTIPLE INJ. TRUNK/UPP.LIMB MULTIP/INJ. SCULL & SCALP	6000 6000
1994F	LOAD HAUL DUMPER (LHD)	LOAD HAUL DUMPER (LHD)	INADEQUATE EXAM/INSPECT/TEST FAILURE TO COMP.WITH STANDARDS	ARTISAN HELPER PUMP ATTENDANT	LIFTING/LOWERING/RAISING WITH MACHIN. CHECK/INSPECT/EXAM.EQIP/MACH VEHIC.	CONTUSION BRUISE: THIGH 14 FRACTURE: 2/MORE FINGERS	14 63
1994I	LOAD HAUL DUMPER (LHD)	LOAD HAUL DUMPER (LHD)	INADEQUATE EXAM/INSPECT/TEST FAILURE TO COMP.WITH STANDARDS	FRONT END LOADER DRIVER TRANSPORT OFFICER	DRIVE/OPERATE TRACKLESS VEHICLE SUPERVISING	CONTUSION BRUISE:LEG BEL KNEE HERNIA/OTHER PART/TRUNK	14 39
1994I	LOAD HAUL DUMPER (LHD)	LOAD HAUL DUMPER (LHD)	FAILURE TO COMP.WITH STANDARDS LACK OF SYSTEMS/FACILITIES	FITTER ARTISAN HELPER	STANDING ASSEMBLING EQUIPMENT/MACHINERY	LACERATION: KNEE JOINT/PAT AMPUTATION: THUMB 600	22
1994F	FRONT END LOADER	Roadway (UG)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	PINCH BAR USER FRONT END LOADER DRIVER	SITTING DRIVE/OPERATE TRACKLESS VEHICLE	MULTIPLE INJ.PELVIC GIRD/SAC FRACTURE: LEG BELOW KNEE	6000 160
1994I	CONVEYOR BELT:OTHER ACCID.	LONGWALL	FAILURE TO COMP.WITH STANDARDS INADEQUATE EXAM/INSPECT/TEST	L.W SHEARER OPERATOR/CREW CONVEYOR BELT ATTENDANT	REMOVING EQUIPMENT/MACHINERY CUTTING WITH TOOL	MULTIPLE INJ.ENTIRE BODY CRUSHING INJ/ENTIRE BODY	6000
1994F	CONVEYOR BELT:TAIL PULLEY	CONVEYOR TRANSFER POINT	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	FITTER BELTSMAN	HAMMERING POURING	PUNCTURE/EY'S/ORBIT AMPUTATION: 1 FINGER	6000
1994I	CONVEYOR BELT:HEAD PULLEY	CONVEYOR DISCHARGE POINT	FAILURE TO COMP.WITH STANDARDS	S.CAR/LHD/SCOOOP DRIVER/CREW	STANDING	FRACTURE:FOOT EXC.TOES	300
1994I	CONVEYOR BELT:OTHER ACCID.	CONVEYOR ROAD	FAILURE TO COMP.WITH STANDARDS	FITTER	CLIMB UP/DOWN/STRU/C/MACH/LADDER	FRACTURE:THUMB+1/MORE FING	50
1994I	DRIVES,BELTS,CHAINS,OTHER	LONGWALL	FAILURE TO COMP.WITH STANDARDS	G.ARMS LOADER DRIVER/CREW G.ARMS LOADER DRIVER/CREW MINERS ASSISTANT	TRAMMING HANDLING REMOVING EQUIPMENT/MACHINERY	FRACTURE:THORACIC ETC FRACTURE: THIGH(FEMUR)	63 62
1994I	GATHERING ARM LOADER	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS INADEQUATE EXAM/INSPECT/TEST	G.ARMS LOADER DRIVER/CREW G.ARMS LOADER DRIVER/CREW	HANDLING REMOVING EQUIPMENT/MACHINERY	AMPUTATION: 1-FINGER	469
1994I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS INADEQUATE EXAM/INSPECT/TEST	MINERS ASSISTANT	STANDING	AMPUTATION: LEG BELOW KNEE	300
1994I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER MINER	HANDLING	AMPUTATION: 1 FINGER	2400
1994I	GATHERING ARM LOADER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	FITTER AIDE FITTER AIDE ELECTRICIAN AIDE	REMOVING OTHER THAN SUPP/EQIP/MACH SUPERVISING STANDING	AMPUTATION: LEG BELOW KNEE	300
1994I	CONTINUOUS MINER	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	FITTER AIDE SCAR/LHD/SCOOOP DRIVER/CREW MOBILE R.B.MACHINE OPERATOR	RIDE(PASS/GUARD)TRACKLESS VEHICLE RIDE ON VEHIC.OTHER THAN TRACK/TYRE LOADING/OFFLOADING	CRUSHING INJ. SCULL & SCALP FRACTURE: ARM (HUMERUS)	6000 246
1994F	CONTINUOUS MINER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	DRILLER MOBILE R.B.MACHINE OPERATOR MOBILE R.B.MACHINE OPERATOR	CUTTING WITH TOOL REMOVING EQUIPMENT/MACHINERY	FRACTURE: ANKLE (CUNE)	160
1994I	CONTINUOUS MINER	TRAVELLING WAY(EXC.SHFT)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	MOBILE R.B.BOLTER OPERATOR MOBILE R.B.MACHINE OPERATOR MOBILE R.B.MACHINE OPERATOR	TRAMMING CLIMB UP/DOWN STRUCT/MACHINE/LADDER HOLDING	LACERATION: 1 FINGER LACERATION: THUMB	33 33
1994F	TRACTOR	TRAVELLING WAY(EXC.SHFT)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	DRILLER MOBILE R.B.MACHINE OPERATOR MOBILE R.B.MACHINE OPERATOR	DRILLING(ELECTRICAL) CUTTING WITH TOOL	CRUSHING INJ. SCULL & SCALP FRACTURE: FOREARM(RAD/ULN)	127
1994I	TRACTOR DRAWN BY TRACTOR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	MOBILE R.B.BOLTER OPERATOR MOBILE R.B.MACHINE OPERATOR MOBILE R.B.MACHINE OPERATOR	TRAMMING CLIMB UP/DOWN STRUCT/MACHINE/LADDER HOLDING	CRUSHING INJ. SCULL & SCALP ABRASION: ARM	6000
1994I	TRACTOR DRAWN BY TRACTOR	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	MINERS ASSISTANT FITTER AIDE	CLOSING/OPENING DOORS SITTING	FRACTURE: 2/MORE FINGERS	14
1994I	PORT POWER TOOL:COAL DRILL	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	PRODUCTION FOREMAN GENERAL MINER/QUARRYMAN	CONNECT/UNCOUPLE EQUIP/MACH/HOSES CONNECT/UNCOUPLE EQUIP/MACH/HOSES	MULTIPLE INJ. SCULL & SCALP FRACTURE: COLLAR BONE(CLAV)	63 186
1994I	PORT POWER TOOL:HAND TOOL	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	PRODUCTION FOREMAN GENERAL MINER/QUARRYMAN	CHANGING EQUIPMENT/MATERIAL	FRACTURE: THUMB	63
1994I	PORT POWER TOOL:ROCK DRILL	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	DRILLER GENERAL MINER/QUARRYMAN	DRIVE/OPERATE TRACKLESS VEHICLE	FRACTURE: ANKLE (CUN)	6000
1994F	ROOFBOLTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	GENERAL MINER/QUARRYMAN	CONNECT/UNCOUPLE EQUIP/MACH/HOSES	FRACTURE: WRISTS(SCHAP/LEX)	127
1994I	ROOFBOLTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	DRILLER GENERAL MINER/QUARRYMAN	DRIVE/OPERATE TRACKLESS VEHICLE	FRACTURE: THUMB	63
1994I	PERSON.TRANSF.(NOT BUS)	TRAVELLING WAY (EXC.SHFT)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	GENERAL MINER/QUARRYMAN	CONNECT/UNCOUPLE EQUIP/MACH/HOSES	FRACTURE: ANKLE (CUN)	160
1994I	PERSONN.TRANSF.(NOT BUS)	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	GENERAL MINER/QUARRYMAN	CHANGING EQUIPMENT/MATERIAL	FRACTURE: INC.TOES	50
1994I	OTHER TRANSPORTER	TRAVELLING WAY(EXC.SHFT)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	DRILLER GENERAL MINER/QUARRYMAN	DRIVE/OPERATE TRACKLESS VEHICLE	FRACTURE: ANKLE (CUN)	469
1994I	LOCOMOTIVE (DIESEL)	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	GENERAL MINER/QUARRYMAN	CONNECT/UNCOUPLE EQUIP/MACH/HOSES	FRACTURE: FOOT INC.TOES	160
1994I	SINGLE DRUM WINCH	CONVEYOR DISCHARGE POINT	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	FITTER AIDE MINERS ASSISTANT	STANDING	FRACTURE: FOOT INC.TOES	50
1994I	BICYCLE:PNEUMATIC TYRE	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	MINERS ASSISTANT	STANDING	FRACTURE: ANKLE(CUNI)	160
1994I	COAL CUTTER	ROADWAY (UG)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	FITTER AIDE	STANDING	FRACTURE: ANKLE(CUNI)	50
1994I	UTILITY VEHICLE	VEHICLE MAINTENANCE	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	MINERS ASSISTANT	STANDING	FRACTURE: PELVIC GIRDLE/SAC	469
1994I	OTHER F.STEER.T.LESS VEHIC.	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS FAILURE TO COMP.WITH STANDARDS	MINERS ASSISTANT	REMOVING OTHER THAN SUP/EQUIP/MACH	FRACTURE: ANKLE(CUNI)	160

NORTHERN TVL REGION: TRANSPORT & MACHINERY ACCIDENTS

1988-1994

YEAR /CODE	CLASSIFICATION	CLASS OF PLACE	CAUSE OF ACCIDENT	OCCUPATION	ACTIVITY	INJURY	ALLOC.
1990I	HAULTRUCK(SIZE UNKNOWN)	OTHER LOCATION	FAILURE TO COMP.WITH INSTRUCTION	FITTER	JUMPING	FRACTURE: KNEE JOINT/PAT	469
1990I	CONVEYOR BELT(OTHER ACCID)	CONVEYOR ROAD (UG)	FAILURE TO COMP.WITH INSTRUCTIONS	CABLE WORKER(LINESMAN)	RIDE ON VEHICLE OTHER THAN TRACK/TIRE	SPRAIN/STRAIN KNEE JOINT	17
1991I	HYDRAULIC DRILL RIG	BORD & PILLAR (FACE)	LACK OF CAUTION/ALERTNESS	TEAM LEADER	SUPERVISING	MULTIPLE INJ. TO 1 HAND	63
1992I	COAL CUTTER	BORD & PILLAR (FACE)	FAILURE TO COMPLY WITH STANDARDS	C.CUTTER DRIVER/CREW	DRIVE/OPERATE T.LESS VEHICLE	AMPUTATION: 1 FINGER	300
1994I	OTHER MACHINERY(NOT VEHIC)	BORD & PILLAR (FACE)	NO DATA CAPTURED	NO DATA	NO DATA	NO DATA CAPTURED	NO DATA CAPTURED
1994I	TRACTOR	TRAVELLING WAY(EXC. SHAFT)	NO DATA CAPTURED	NO DATA	NO DATA	NO DATA CAPTURED	NO DATA CAPTURED

P.W.V. REGION: TRANSPORT & MACHINERY ACCIDENTS

1988-1994

YEAR /CODE	CLASSIFICATION	CLASS OF PLACE	CAUSE OF ACCIDENT	OCCUPATION	ACTIVITY	INJURY	ALLOC.
1986I	SHUTTLE CAR	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	S.CAR/LHD/SCOOB DRIVER/CREW	UNRELIABLE DATA(BEFORE 1/7/90)	MULTIPLE INJ. ANKLE(CUNI)	160
1986I	TRACTOR	ROADWAY (UG)	FAILURE TO COMP.WITH INSTRUCTIONS	PLANT OPERATOR	UNRELIABLE DATA(BEFORE 1/7/90)	FRACUTURE: PELVIC GIRDLE	469
1986I	TRAILER DRAWN BY TRACTOR	ROADWAY (UG)	LACK OF CAUTION/ALERTNESS	MINE LABOURER	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: 1 FINGER	300
1989F	SHUTTLE CAR	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	UNRELIABLE DATA(BEFORE 1/7/90)	CRUSHING INJ.MULTIPLE/TRUNK	6000
1989I	TRACTOR	VERTICAL SHAFT	FAILURE TO USE SAFETY DEVICES ETC	ELECTRICIAN ADE	UNRELIABLE DATA(BEFORE 1/7/90)	MULTIP.INJ. HEAD/FACE/NECK/LIM	469
1989I	OTHER MACHINERY(NOT VEHIC)	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	TEAM LEADER	UNRELIABLE DATA(BEFORE 1/7/90)	AMPUTATION: 2 (MORE FINGERS)	1200
1990I	COAL CUTTER	TRAVELLING WAY (UG)	FAILURE TO USE SAFETY DEVICES ETC	FOREMAN	MOVING OBJECTS	FRACUTURE: PELVIC GIRDLE/SAC	469
1990I	OTHER TRANSPORTERS	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH INSTRUCTIONS	ELECTRO MECH/MILLWRIGHT	UNRELIABLE DATA(BEFORE 1/7/90)	FRACUTURE: ARM(HUMERUS)	246
1990I	SHUTTLE CAR	CONVEYOR LOADING POINT	FAILURE TO COMP.WITH INSTRUCTIONS	S.CAR/LHD/SCOOB DRIVER/CREW	STANDING	CONT.BRUI:TRUNK+UPPER LIMBS	31
1990I	FRONT END LOADER	INCLINED SHAFT	INADEQUATE SUPERVISION/DISCIPLINE	TEAM LEADER	MOVING SELF	FRACUTURE: THIGH	469
1991I	UTILITY VEHICLE	ROADWAY (UG)	LACK OF CLEARANCE (OBSTRUCTION)	ELECTRICIAN	LOADING/OFFLOADING	CRUSHING INJ.THORAX(EX.SPINE)	22
1991I	SHUTTLE CAR	ROADWAY (UG)	LACK OF ADEQUATE/SUITABLE TRAINING	MACHINE OPERATOR	DRIVE/OPERATE T.LESS VEHICLE	FRACUTURE: FOREARM/RAD/ULN	127
1991I	ROOFBOLTER	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	BOILERMAKER	DRILLING (PNEUMATIC)	MULTIPLE INJ. 2/MORE FINGERS	63
1992I	HYDRAULIC DRILL RIG	BORD & PILLAR (FACE)	FAILURE TO COMP.WITH STANDARDS	DRILL SHARPENER	STANDING	FRACUTURE: FOOT (INC. TOES)	50
1994I	FRONT END LOADER	TRAVELLING WAY(EXC. SHAFT)	FAILURE TO COMP.WITH STANDARDS	BOILER MAKER	RIDE(PASS/GUARD).T.LESS VEHICLE	AMPUTATION: FOOT	1200
1994I	TRACTOR	PERSONNEL CRUSH/TRAVEL,WAY	FAILURE TO COMP.WITH STANDARDS	MINER	RIDE(PASS/GUARD).T.LESS VEHICLE	MULTIPLE INJ.ENITIRE BODY	469

APPENDIX 3

CAUSES OF ACCIDENTS AS IDENTIFIED BY ENSLIN AND DE KOCK

Conveyer Belts

Most accidents occur either at the drive, tail end or at tipping points along the belt with the most common causes being.

Design

- Lockout devices insufficient.
- Design of safety guards allowing people to enter or work on conveyor without having to stop the system.
- Tools for cleaning or maintenance not designed with safety as priority.
- Illumination and warning devices at strategic places inadequate.
- Design of tail end conducive to excessive spillage.

Procedures

- Interlocking systems not properly planned.
- Logbooks of maintenance on safety devices ineffective.
- Procedures when more than one person is doing maintenance on same belt not effective.

Training

- Contractors not conversant with mine standards or procedures.

Tractors and Trailers

Tractors and trailers can be divided into two categories because of the very nature of the injuries sustained. Trailers are responsible for foot injuries while tractors are responsible for all the fatalities in this category.

Design

- Design of trailer draw bar, stop blocks and safety jacks insufficient.
- Lockout devices not effective allowing unlicensed and abusing of these vehicles.

- Tractors not designed for more than one person travelling in the drivers position.
- Dangerous design of the facility for independent braking of the rear wheels.
- Design of gear ratio conducive to speeding.
- Hiabup design not safe for the way it is being utilized.

LHD and Free Steering Vehicles

The majority of accidents in this category were caused because the vehicle was used for activities which it had not been designed for. The prominent design shortcomings are listed below.

Design

- Visibility of the immediate surroundings for the driver not sufficient.
- No warning devices to warn people of vehicle approach incorporated.
- Facilities for embarking and disembarking on vehicle inadequate.
- Disc brake design allows ingress of coal dust which could result in fires.
- Lockout devices not effective.
- Protection for driver during run away inadequate.
- Design of control levers conducive to accidental activation.

Procedures

- Vehicles being used as ladders, transporters, cranes.
- Unlicensed usage.
- Maintenance procedure and pre-use checks not utilized properly.
- Procedure in case of vehicle out of control down incline.

Shuttle Cars

Shuttle cars are responsible for the highest rate of fatalities per accident category. Although they are ranked number five, it is important to note the seriousness of these accidents.

Design

- The view of the driver in either direction is very poor.
- Visibility of the shuttle car in the area where it is working is insufficient.
- Warning devices not sufficient because in many cases proportion pea-whistles are being used.
- Illumination on reverse side ineffective.

- Elimination of shock starts insufficient.
- No design to assist in wheel changing operations.
- Control levers in certain conditions poorly situated.
- Modifications suspect.

Procedure

- Pre-use checks and subsequent maintenance procedures ineffective.
- Procedure for regular maintenance ineffective.
- Testing procedure insufficient after maintenance and daily checking.
- Licensing of maintenance personnel inadequate.

Training

- Training procedures need to be revised.
- Retraining after modifications not sufficient.
- Training of maintenance personnel.

Continuous Miners

Although continuous miners and cranes are responsible for the same number of accidents, continuous miners are rated number six because of the number of fatalities they are responsible for. It must be noted that, in this category, some falls of ground accidents are included because of the very nature of the design of the machine means that injuries are inflicted on persons serving the machine.

Design

- Lack of design in cable handling resulting in the number two driver to be in a high risk area.
- Canopy deflects falling rocks on the cable handler.
- Some controls situated outside protective canopy.
- Visibility in either direction not sufficient.
- Lack of aids to assist driver to be more effective.
- Lack of proper design for cable suspension.
- Lack of grappling handles on cover plates.
- Illumination inadequate.

Procedure

- Procedures ineffective for inter-heading tramsing.
- Procedure ineffective for inspection of roof during cutting.
- Dangerous procedures for cable handling in some cases.

REFERENCES

1. Phillips, H.R. and Landman, G v R. The Development of a Discussion Document on the Safety Related Research Needs of the Coal Mining Industry. Final project report, SIMRAC. March 1994. pp 8-9.
- 2.G.M.E. Reportable Accidents, code book, SAMRASS , Department of Mineral and Energy Affairs, Republic of South Africa. July 1993.
3. Peake, A.V. and Ritchie, A.J. Establish the primary causes of accidents on mines other than gold, coal and Platinum. Simrac Final Project Report. Project No. OTH003. February 1994.
4. Ashworth, S.G.E. and Peake, A.V. Assess the dominant circumstances and factors giving rise to accidents in the gold and platinum mining industries. SIMRAC final report. Project No. GAP055(part1) March 1994.
- 5.Enslin, H and De Kock, A. Research into Underground Transport Accidents. Unpublished internal report on work funded by Step money. CSIR 1993.
- 6.Phillips, H.R. and Landman, G v R. The Development of a Discussion Document on the Safety Related Research Needs of the Coal Mining Industry. Final project report, SIMRAC. March 1994. pp 5)