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Coal Mine Fires Involving Track and Belt Entries, 1970-1988

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COAL MINE FIRES INVOLVING TRACK AND CONVEYOR BELT ENTRIES, 1970-1988

by

Steven J. Luzik and Lisa A. Desautels

INTRODUCTION

This report was generated to provide technical back-up for recommendations concerning construction and placement of waterlines in underground coal mines. Research was conducted and data generated on underground coal mine fires involving the track and belt entries, which occurred during the 19-year period from 1970 through 1988. The data tabulated concerns itself with fire-fighting experience involving these fires, fatalities, injuries, and property damage incurred. The practice of ventilating air outby in conveyor belt entries is also addressed as related to fire-fighting experience.

The accident reports that were used to generate this data were taken from reports in the Industrial Safety Division (ISD) file. To the best of our knowledge, this file is complete but there may be other fires that occurred which were not reported by MSHA or for which we do not have a copy of the report.

FIRE EXPERIENCE - GENERAL

During the period from 1970-1988, the total number of mine fires reported by MSHA was 293. Of these fires, 65, or 22.2%, involved burning in the conveyor belt entry and 60, or 20.5%, involved the track entry. There were 5 fires reported in both categories, and they are identified as such in the tables.

Table 1 lists fires which involved belt and track entries in 3-year increments. The percentage of fires involving conveyor belt entries has

increased in the 1980's when compared to the previous decade. This is not surprising since belt haulage has become the most widely used method of removing coal from the mine.

TABLE 1. - Belt and Track Entry Fires Compared to All Fires with a 19-Year Reporting Period, 1970-1988

Range (yrs.)	Total Fires	Number of Belt Entry Fires	Percent of Total	Number of Track Fires	Percent of Total
1970	36	5	13.9	5	13.9
1971-1973	53	6	11.3	17	32.1
1974-1976	39	5	12.8	8	20.5
1977-1979	30	5	16.7	10	33.3
1980-1982	45	12	26.7	8	17.8
1983-1985	39	18	46.2	5	12.8
1986-1988	51	14	27.5	7	13.7
TOTALS	293	65	22.2	60	20.5

The occurrence of track fires has been fairly constant, averaging about two fires per year in the 80's compared to about four fires per year in the previous decade when track haulage was the predominant means of coal transportation.

Table 2 categorizes these belt and track fires according to their cause. Friction generated by the belt is the predominate cause of fires in the belt entries. Fires in the trolley entries are mostly caused by a short-circuiting action of the trolley pole or trolley wire induced by roof falls or contact with moving equipment.

TABLE 2. - Cause of Fires Occurring in Track and Belt Entries, 1970-1988

Cause	Belt Entry Fire		Track Entry Fires	
	Number	Percent of Total	Number	Percent of Total
Friction	22	33.9	-	-
Electrical (other than trolley)	8	12.3	20	33.3
Welding/Cutting	13	20.0	4	6.7
Heat	3	4.6	-	-
Fuel	1	1.5	-	-
Unknown	18	27.7	4	6.7
Trolley Wire	NA	-	4	6.7
Derailment	NA	-	2	3.3
Transporting Equipment	NA	-	12	20.0
Roof Fall (trolley wire shorts)	NA	-	9	15.0
Trolley Pole	NA	-	5	8.3
TOTALS	65	100.0	60	100.0

Tables 3 and 4 detail fire-fighting experience as related to these fires.

BELT FIRE EXPERIENCE

Of the total number of fires, which occurred in or spread to the conveyor belt entries, only 2 involved fatalities. A fire, which occurred on 11/27/86 at Florence Mining Company, resulted in the death of a miner due to a heart attack from fire-fighting activities. The Wilberg Mine Fire of 12/19/84 resulted in the deaths of 27 miners trapped inby the fire on a longwall panel.

TRACK HAULAGE FIRE EXPERIENCE

Thirteen fires, which involved the track entry, resulted in either death or injuries. Three of these fires involved fatalities. These thirteen fires are summarized as follows:

1. Jones & Laughlin Steel Corporation, Shannopin Mine, 6/12/70 - The fire occurred in a locomotive near the underground coal bin when a short circuit occurred at the locomotive contactors. Four men were slightly affected by smoke, but all were released for duty after an examination by the company physician.

2. The Buckeye Coal Company, Nemacolin Mine, 3/26/71 - The fire resulted when the end of the trolley wire fell and contacted the grounding clamp attached to the track rail. Two men died during evacuation from asphyxiation and one man accidently drowned during flooding operations performed to fight the fire.

3. Blue Diamond Coal Company, Owens Branch Mine, 5/6/72 - Fire occurred during roof-bolting operations when a protruding wire on a hydraulic hose contacted the trolley wire. Arcing ignited the hose and the hydraulic oil in the machine. Two men were trapped inby the fire and used self-rescue devices.

4. Consolidation Coal Company, Blacksville No. 1 Mine, 7/22/72 - The fire started when a continuous mining machine, being transported along the track haulageway, contacted the energized trolley feeder wires. Nine men at a section inby the fire died as a result of this fire.

5. The Buckeye Coal Company, Nemacolin Mine, 12/2/72 - A locomotive caught fire when a high-resistance ground fault occurred in the vicinity of the controller. The operator of the second locomotive was injured when the locomotive on fire collided with his.

6. The Nacco Mining Company, Powhatan No. 6 Mine, 7/11/73 - The fire occurred when the operating lever on a stoper drill being transported contacted the energized trolley wire. Arcing ignited the trailing cable and some rubber-covered air hoses. Nine men were treated for smoke inhalation; three from fire-fighting operations and six from escaping through smoke. Another employee injured his knee when he attempted to cross the moving conveyor belt during the emergency.

7. Rochester & Pittsburgh Coal Company, Jane Nos. 1 and 2 Mines, 8/31/74 - The drill head leveling bar of a roof bolter contacted the energized trolley wire. The hydraulic hose ruptured and the spraying oil was ignited by the existing short circuit. Two men were seriously burned by the spraying oil and one of them died later form the burn injuries.

8. Bethlehem Mines Corporation, Revloc Mine 32, 2/7/77 - A rock fall caused the energized trolley wire to contact a steel roof support. Arcing ignited wooden crib blocks. No one was injured as a direct result of the fire, but a repairman was seriously injured and later died as a result of a methane explosion occurring in a shaft during de-watering operations.

9. Amax Coal Company, Wabash Mine, 12/8/78 - A fire occurred when a piece of off-track equipment being transported contacted the energized trolley wire. Six miners were taken to the hospital for smoke inhalation treatment.

10. Consolidation Coal Company, Humphrey No. 7 Mine, 7/10/79 - A fire occurred in the trolley pole and controller power cables junction box. A miner broke two of his ribs as he jumped from the locomotive to escape the flames.

11. The Youghiogheny & Ohio Coal Company, Nelms No. 2 Mine, 10/14/81 - A fire was started when the top of the personnel carrier contacted the trolley pole harp and slide assembly. The wooden trolley pole, insulation, and the roof were ignited. A foreman was hospitalized and treated for smoke inhalation after being injured during the fire-fighting procedures.

12. The North American Coal Corporation, Powhatan No. 3 Mine, 11/28/82 - The temperature switch on a compressor had been disconnected. This permitted the compressor to overheat and ignite the hydraulic oil. Two miners suffered from smoke inhalation.

13. Westmoreland Coal Company, Bullitt Mine, 10/18/84 - As the energized trailing cable to a 250-volt DC hoist was being moved, an arcing fault in a splice started the cable fire. Four miners incurred smoke inhalation injuries during the evacuation.

Of the 60 fires involving the track entry, 7 were positively identified as incorporating a ventilation plan where a belt entry was adjacent to the

trolley and not physically separated from it with permanent stoppings. One fire occurred in an entry, which contained both the track and the belt. These fires are identified in Table 4.

A review of the data in Tables 3 and 4, and more in-depth narratives contained in the individual accident reports combined with discussions with individuals involved in fire-fighting activities, reveal that several factors play a crucial role in the effectiveness of a fire-fighting effort. These same factors play a role determining the safety and ultimate survival of miners working inby fire areas.

A discussion of some of these important factors follows.

FACTORS AFFECTING FIRE-FIGHTING EFFORTS/RESPONSE/SUPPRESSION

1. Properly Designed and Maintained Fire Detection and Suppression Systems

Early detection and response is essential if a fire in an underground mine is to be effectively controlled and extinguished. All to often, we read about a small fire that got out of control because of poorly maintained or inoperative fire detection and suppression systems.

An inoperative automatic fire sensor prevented early detection of a belt fire at the Duncan Coal Company's No. 3 Mine on 4/16/84.

A turned-off water valve on a belt drive deluge system prevented early attack of a fire at the Marianna No. 58 Mine (3/7/88). In addition, a fire hose, which was part of the deluge system, was wedged into the belt frame and had to be cut free, precluding use of the nozzle for initial fire-fighting efforts. Thus, effective coverage by this hose was not possible and the fire quickly spread out of control. The mine had to be eventually sealed.

There are numerous instances where design or maintenance problems in section waterlines have impaired effective fire-fighting efforts. Fire-fighting in both track and belt entries has been affected. Fires have occurred in sections where the waterlines were not charged (Alpine Mine - 12/9/76; DO&W Coal No. 5 Mine - 2/3/82); were frozen (FMV No. 1 Mine - 12/10/76); were not in place (Island Creek Fies Mine - 12/27/78; Kermit No. 1 Mine - 8/7/70); or had outlet valves that were not compatible with hose fittings (Cannelton No. 8 Mine - 3/26/82).

Low pressure was mentioned as a reason for fire spread in other mine fires (Powhatan No. 1 Mine - 2/5/82; Beatrice Mine - 11/25/81). The presence of shut-off valves in the main section waterline would have improved fire-fighting capabilities in at least two mine fires that occurred (Nemacolin Mine - 3/26/71; Pioneer Mine - 12/26/72).

Other problems experienced with waterlines include lack of regulators on hydrants, which caused hoses to burst and delayed fire-fighting activities for a period of 4 hours (Beckley Mine - 4/1/87) and failures of the line due to heat (Fountain Bay Mine No. 1 - 5/6/85; Sinclair Slope No. 2 Mine - 5/13/88). The waterline at the Central Appalachian Coal Company's No. 4 Mine - 11/7/81 failed when the water hose attached to the deluge water suppressing system was turned on. Finally, a corroded outlet prevented the hook-up of a fire hose in the 12/8/78 fire at the Wabash Mine.

2. Roof Falls

Roof falls have been a major contributor as both a cause of fires, particular in trolley entries, and as a deterrent to effective fire-fighting efforts. Roof falls have been cited as the cause of 9 track fires during the

19-year period and, moreover, are frequently mentioned as an obstacle preventing direct attack of the fire using extinguishing media (H_2O, dry chemical, or rock dust).

Some examples of fires where roof falls impaired fire-fighting efforts are: Pioneer Mine - 12/26/72 (belt); Bethlehem No. 31 Mine - 10/29/73 (belt); Camp No. 2 Mine - 11/11/74 (belt); Revloc Mine 32 - 2/7/77 (track); Vesta No. 5 Mine - 4/10/77 (track); Peabody Mine No. 12 - 1/12/80 (track); Cannelton No. 8 Mine - 3/26/82 (belt); Camp No. 2 Mine - 3/13/84 (belt).

3. Ventilating Air Flow Opposite of Direction of Water Flow in the Waterline

Of all the fires occurring in belt and track entries, three particular fires have been identified, which occurred in mine entries where the direction of airflow was opposite to that of the direction of the flow of water in the waterlines. Extreme difficulty in fire-fighting was experienced in all of these fires.

On April 11, 1970, the Robinson Run No. 95 Mine experienced a fire of undetermined origin in a rail haulage entry. Due to the sinking of a new shaft, a portion of the mine experienced a condition where the water in the waterline was flowing toward the west and ventilating air currents were easterly. This is the area in which the fire occurred. As the fire spread easterly in the direction of the airflow, a roof fall occurred which severed the waterline. Men tried to approach the fire from the downwind (outby) side, but failed. Eight seals were erected underground in an attempt to confine and extinguish the fire. Shortly after erection of the seals, three explosions occurred in rapid succession. Men were withdrawn from the mine and it was

subsequently sealed. As a result of this fire, the company established a policy that 100,000 gallons of water would be made available for every new shaft that was sunk[1].

On December 9, 1976, a fire occurred at the R&P Alpine Mine on the tailpiece of the No. 5 belt conveyor. Coal dust accumulations of up to 12 inches existed in this area. Men working underground refused to go inby to fight the fire. Difficulty was experienced in fighting the fire because of the direction of airflow. Risks were taken to open stoppings and mandoors to clear the entry of smoke. The fire was eventually extinguished but with considerable difficulty. Men fought the fire with self-rescuers instead of approved apparatus.

The third fire occurred at the Shoemaker Mine on January 4, 1986. A roof fall in the fire area broke the waterline before the fire hose could be connected. To provide water, a fire car was brought in to an area in the adjacent track entry but heavy smoke entering through an overcast against the 150 fpm ventilating air flow prohibited the car from reaching the fire. Three ventilation controls were adjusted, all inby the fire and in smoke, to try to increase the track velocity to clear the smoke. Finally, several stoppings were removed between the belt and the intake escapeway outby the fire and the air in the belt entry was reversed. Fortunately, the proximity of an intake air shaft made sufficient air available and allowed a fire hose to be lowered into the mine from a fire truck on the surface. Once water was applied, the fire was extinguished in a few hours.

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[1]Private communication with Will Jamison, Jamison Engineering, March 1990.

4. Solid/Substantial Stopping Lines for Separation

Probably the worst fire disaster related to this subject occurred on July 22, 1972, at Consolidation Coal Company's Blacksville No. 1 Mine where nine men lost their lives. The fire started when a continuous mining machine being transported in the trolley entry contacted the trolley wire. A contributory factor to the deaths of the nine men working inby the fire was the use of poorly constructed corrugated sheet metal stoppings, which permitted contaminated air to leak into the escapeways before the men could exit the mine. Leakage of smoke from the fire entry also quickly contaminated the escapeway in the Marianna No. 58 fire on 3/7/88. Men exited the mine in heavy smoke while donning their SCSR's.

5. Ventilation

Low velocities in the belt and track entries often exist. When a fire occurs, the smoke may roll back against the normal direction of airflow in the mine making fire-fighting efforts very difficult. Effective fire-fighting efforts often require that the fire be fought from both inby and outby sides, and smoke will be a problem in this situation regardless of ventilation conditions. Tables 3 and 4 cite many examples where smoke caused problems in the fire-fighting effort.

In some instances, decisions are made to reverse the air flow in the entry affected by fire. This can, in some instances, result in passing contaminated air containing volatile products of combustion back over the fire area. The possibility of explosion exists and has occurred in some cases (Robinson Run No. 95 Mine - 4/11/70). Sealing localized areas can also create explosion conditions.

6. Prompt Response

Failure to respond quickly to incipient fire has been responsible for many small fires developing into hard-to-control or uncontrollable situations. Quick response implemented through a well-planned method of attack is the most important defense against an incipient mine fire.

Reasons for lack of immediate response are widespread. Examples were previously discussed and are related to improperly designed or maintained fire suppression and detection systems, roof falls, or smoky conditions. In many instances, lack of prompt response to a fire is the result of human error and is of a controllable nature.

7. Coal Seam

Research of underground coal mine fire reports[2] involving fires initiated in active, ventilated airways that were investigated by MSHA in the last 28 years indicates that the coal itself will not become significantly involved in the fire if the volatile matter content is sufficiently low (less than 30 percent).

Coal mines mining highly volatile seams, particularly where roof coal is left, are susceptible to fires, which can spread out of control if not attacked rapidly using prudent fire suppression measures.

8. Communication

Study of mine fire reports indicate that effective communication may play a vital role in the general fire-fighting efforts and, more importantly,

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[2]MSHA Technical Support Industrial Safety Division (ISD) Internal Memorandum dated 2/26/87.

saving lives. As previously mentioned, effective fire-fighting requires prompt response, which necessitates good communications between individuals involved in the effort and a well-thought-out plan of attack.

Loss of life occurred in the Blacksville No. 1 Mine (7/22/72) and Wilberg Mine fires (12/19/84), and poor communications were cited as a factor in both cases. Communication equipment (page phones, etc.) should be routinely inspected and maintained to ensure that they will function when needed.

9. Loose Coal and Dust Accumulations

The presence of loose coal and coal dust accumulations, particularly in the belt entry, has been cited as a factor in the initiation of 21 of the 64 fires, which have involved the belt entry in the 19-year reporting period. Most notably, in the Marianna No. 58 fire (3/7/88) and the Duncan Coal Company's No. 3 Mine fire (4/16/84).

In the Marianna No. 58 fire, coal spillage was observed during fire-fighting efforts, which was several feet deep in some places along the belt and contacted the bottom belt in some areas. The spillage could have totaled 300-400 tons. In the Duncan No. 3 Mine fire, accumulations of coal dust measured 15 inches in depth in some locations.

SUMMARY

A 19-year history of fires involving track and belt entries has been presented. These fires represent about 43 percent of the total number of fires reported in this period.

Examination of the data indicates that similar fire-fighting experiences are common to both classes of fires. Fire hazards exist in both entries. The principle ignition source of fires occurring in the belt entry is friction

induced from the belt rubbing against hot rollers, belt frame, or lagging. Fires of electrical origin predominate in the trolley entry. Additionally, roof falls causing the trolley wire to short or contact of the trolley wire by improperly protected equipment being transported are frequently reported as fire initiators. The less-traveled trolley entry is also more prone to have a roof fall go undetected when compared to the belt entry. This could negatively impact on the probability of maintaining a waterline located in this entry.

Fire occurring in an entry where the ventilating air was travelling in a direction opposite to the flow of water in the waterline resulted in some very difficult fire-fighting experiences. In one case, the mine had to be sealed. In yet another, water had to be pumped into the mine from the surface to extinguish the fire.

Careful examinations of these fires and related fire-fighting activities clearly underscore the need for:

1. PROPERLY DESIGNED AND MAINTAINED FIRE SUPPRESSION AND DETECTION SYSTEMS,
2. A WELL THOUGHT-OUT PLAN OF ATTACK, and
3. QUICK FIRE-FIGHTING RESPONSE MEASURES

if a successful fire-fighting effort is to be realized.

Finally, the importance of equipment inspection and maintenance, and good housekeeping to prevent accumulations of loose coal, coal dust, and other combustibles cannot be overemphasized if fires are to be reduced or successfully controlled.

FIRE EXPERIENCE -- FIRES INVOLVING BELT ENTRIES, 1970-1988

11-09-90

DATE	COMPANY, MINE, ID	F/I	CAUSE OF FIRE	AIR COURSED INBY/OUTBY IN BELT ENTRY	PROPERTY DAMAGE	FIRE FIGHTING REMARKS
70-01-12	U.S. STEEL CORP. GENEVA MINE	O/O	HEAT GENERATED BY SLIPPAGE OF BELT IGNITED THE LAGGING ON THE DRIVE PULLEY & SPILLED COAL	INBY	CONFINED TO LAGGING ON DRIVE PULLEY & 10' OF BELT	FIRE FOUGHT WITH ROCK DUST, DRY CHEMICAL & EVENTUALLY WATER HOSE; NO DIFFICULTIES IN FIRE FIGHTING; NO SPECIFIC INFO ON WATER LINES OTHER THAN THEY WERE PROVIDED
70-08-07	KERMIT COAL CO., INC. NO. 1 MINE	O/O	BELIEVED THAT FRICTION FROM A DEFECTIVE BOTTOM ROLLER CREATED HEAT WHICH IGNITED BELT & COAL DUST	INBY	CONFINED TO 800' OF BELT & 400' OF ROPE SUPPORT	FIRE AT BOTTOM OF SLOPE; WATERLINES WERE NOT YET INSTALLED; HOSE DRAGGED DOWN SLOPE TO FIGHT FIRE; MINE WAS IDLE
70-10-25	GUNN-QUEALY COAL CO. RAINBOW NO. 7 MINE	O/O	BELIEVED THAT HOT SLAG FROM CUTTING OPERATIONS BURST INTO FLAMES WHILE INSTALLING A GEAR REDUCER AT BELT DRIVE		LIMITED TO BURNING & SEVERING THE BELT, ONE WOODEN BLOCK, & BELT-COVERED DRIVER PULLEY	2-1/2 HR. SELF RESCUERS USED TO CHANGE VENTILATION; WATER & PRESS. CHEM. EXTS. USED TO EXTING. THE FIRE; OUTLETS IN WATER-LINE PROVIDED AT DRIVE AREA
70-12-14	THE NORTH AMERICAN COAL CORP. CASTLE GATE NO. 4 MINE	O/O	FRICTION FROM BELT DOUBLING OVER AT HEAD PULLEY & NOT ALLOWING BELT TO PASS THROUGH THE DRIVE PULLEY		LIMITED TO A SHORT SECTION OF BELT	FOUGHT USING ROCK DUST, DRY CHEMICAL; WATER NOT USED
70-12-27	BEAVER CREEK CONSOLIDATED COAL CO., INC. JONES FORK MINE	O/O	BELIEVED THAT HEAT FROM A DEFECTIVE BOTTOM ROLLER IGNITED THE CONVEYOR & SMALL AMOUNT OF COAL DUST		CONFINED TO SMALL PORTION OF THE BELT	MINE IDLE; FOUGHT DIRECTLY WITH WATER; NO PROBLEMS ENCOUNTERED; NO INFO CONCERNING WATERLINES
71-03-23	ITMANN COAL CO. ITMANN NO. 4 MINE	O/O	UNDETECTED PIECE OF HOT METAL FROM CUTTING OPERATIONS WAS PROPELLED THROUGH A CRACK IN THE STOPPING TO THE RETURN AIR COURSE		NO PROPERTY DAMAGE REPORTED	FIRE HOSE & WATER OUTLET WERE LOCATED WITHIN 200' OF FIRE; WATER LINE IN BELT OUTLETS AT 300' & 600' OF HOSE AT DRIVE
71-07-13	THE NORTH AMERICAN COAL CORP. KENILWORTH MINE	O/O	DEFECTIVE ROLLER OVERHEATED & INITIATED COMBUSTION OF LOOSE BELT FILAMENTS & DUST		NO PROPERTY DAMAGE REPORTED	WATER & AVAILABLE HOSE USED TO EXTINGUISH THE FIRE PROMPTLY; NO INFO ON WATERLINE OR OUTLETS
72-12-26	GALLOWAY LAND CO. PIONEER MINE	O/O	SHORT CIRCUIT IN POWER WIRES FOR PUMP CAUSED COMBUSTIBLE MATERIAL TO IGNITE		NOT SPECIFICALLY STATED; SEALED	PRIOR ROOF FALL OUTBY BROKE 4" H2OLINE PARALLEL TO BELT; LITTLE ATTEMPT AT DIRECT ATTACK; SPREAD RAPIDLY-SEALED; 4" WATERLINE IN BELT WITH OUTLETS AT 300', HOSE AT STRATEGIC LOCATIONS
73-08-22	EASTERN ASSOC. COAL CORP. COLVER MINE	O/O	BROKEN BOTTOM ROLLER OVERHEATED & IGNITED LOOSE COAL & DUST ON THE FLOOR		NO PROPERTY DAMAGE REPORTED	SMALL INCIPIENT FIRE DISCOVERED & EXTINGUISHED USING ROCK DUST; NO INFO CONCERNING WATERLINES OR USE THEREOF
73-10-29	BETHLEHEM MINES CORP. NO. 31 MINE	O/O	SPARKS FROM CUTTING IGNITED CRIBBING & A THOROUGH PRE-SHIFT NOT CONDUCTED		CRIBBING	BURNING UNDER ROOF FALL; FOUGHT DIRECTLY WITH WATER HOSE; INTENSE HEAT, SMOKE, STEAM LED TO FLOODING;4" LINE, 1-1/2" HOSE, OUTLETS AT 300' IN BELT ENTRY; DRY CHEM. ALSO AVAILABLE
73-11-20	KENTLAND ELKHORN COAL CORP. FEDSCREEK NO. 2 MINE	O/O	UNTRAINED BELT CUT THROUGH BOTTOM ROLLER HANGER; HEAT IGNITED COAL DUST & GREASY FIBERS OF BELT AROUND END OF ROLLER	INBY	335' OF BELT, TIMBERS, CRIBS, 300' OF HIGH VOLTAGE CABLE, SWITCHES, BELT CABLE	4" WATER LINE (METAL) IN BELT ENTRY; OUTLET VALVES AT 300' CENTERS, 150' FIRE HOSE AT EACH OUTLET; LINE DISCONNECTED OUTBY FIRE AREA & USED TO FIGHT FIRE; NO FIRE FIGHTING DIFFICULTIES
74-06-29	WESTMORELAND COAL CO. WENTZ NO. 1 MINE	O/O	SPARK FROM CUTTING OPERATIONS IGNITED GAS ESCAPING FROM AN ACETYLENE CYLINDER		REPORTED AS NEGLIGIBLE	FIRE EXTINGUISHED WITH DRY CHEMICAL EXTINGUISHER; NO MENTION OR USE OF WATERLINE
74-11-11	PEABODY COAL CO. CAMP NO. 2 MINE	O/O	ROOF FALLS & SEALING PREVENTED AN INVESTIGATION TO DETERMINE THE EXACT CAUSE	INBY	SLIGHT DAMAGE TO BELT FRAMING & ROPES	FIRE HOSE ATTACHED TO OUTLETS IN THE LINE FROM OUTBY AND EXTENDING INTO INTAKE THRU STOPPING TO INBY THE FIRE; FOUGHT FROM 3 DIRECTIONS; NO WATER PROBLEMS; ROOF FALLS LED TO SEALING

* - INCIDENT ALSO CONTAINED IN TABLE 4, FIRES INVOLVING TROLLEY ENTRIES

FIRE EXPERIENCE -- FIRES INVOLVING BELT ENTRIES, 1970-1988

11-09-90

DATE	COMPANY, MINE, ID	F/I	CAUSE OF FIRE	AIR COURSED INBY/OUTBY IN BELT ENTRY	PROPERTY DAMAGE	FIRE FIGHTING REMARKS
76-04-08	JEWELL RIDGE COAL CORP. NO. 11 MINE #44-00251	O/O	BELIEVED TO HAVE STARTED BY SOME ELECTRICAL FAILURE IN SHANTY	INBY	NOT SPECIFICALLY STATED	NO INFO REGARDING WATERLINES; FIRE FOUGHT WITH WATER FROM A WATER CAR
76-12-09	ROBINSON & PHILLIPS COAL CO. ALPINE MINE #46-02179	O/O	OVERHEATING OR FRICTION ON BELT IGNITED COMBUSTIBLE MATERIALS IN THE AREA	OUTBY	NOT SPECIFICALLY STATED	SECTION WATERLINE INOPERATIVE; POWER DISCONNECTED FROM WATER PUMP; FIRST FOUGHT WITH EXTS. & ROCK DUST; 2" WATERLINE DISMANTLED TO FLOOD THE AREA; EXTING. WITH WATER A FEW HRS. LATER
76-12-10	F.M.V. COAL CO. NO. 1 MINE #46-04213	O/O	SHORT CIRCUIT IN A BELT DRIVE POWER CABLE IGNITED COAL, DUST, WOOD, & BELT		LIMITED TO SHORT SECTION OF BELT ON 2 BELT FLIGHTS	TOOK 9 HRS TO GET WATER; 2" LINE FROZEN; EXTINGUISHED 20 MIN. AFTER WATER APPLIED; LINE IN BELT ENTRY WITH 1 OUTLET FOR 1650' DISTANCE; NO FITTINGS PROVIDED AT THIS OUTLET
* 77-03-20	EASTERN ASSOC. COAL CORP. KOPPERSTON NO. 1 MINE #46-01537	O/O	HEAT IGNITED MATERIALS AT BOOMMAN'S SHANTY		NOT SPECIFICALLY STATED	FIRE AT TRANSFER STA.; FOUGHT FIRST WITH DRY CHEM. EXT. THEN WATERCAR; PRESSURE NOT MAINTAINED IN WATERLINES ALONG TRACK SINCE WAS NON-PRODUCING SHIFT
77-07-13	THE FLORENCE MINING CO. FLORENCE NO. 1 - BLACKLICK #36-00924	O/O	POORLY MAINTAINED BELT CAUGHT ON FIRE DUE TO FRICTION & HEAT	INBY	NOT SPECIFICALLY STATED	MINE IDLE; 6" WATERLINE IN BELT ENTRY; FOUGHT FOR SEVERAL HRS. USING FIRE HOSE; NO WATERLINE PROBLEMS
77-09-23	ISLAND CREEK COAL CO. NO. 9-E MINE #46-01539	O/O	UNDETERMINED		NOT SPECIFICALLY STATED	FOUGHT FROM 2 DIRECTIONS: WATERLINE INBY BELT DRIVE & 4000 GAL WATER TANK TRUCK WITH PRESSURE PUMP FEEDING FIRE HOSE LAID ALONG NO. 1 BELT
79-03-14	PEABODY COAL CO. CAMP NO. 1 MINE #15-02709	O/O	UNDETERMINED		NOT SPECIFICALLY STATED	DISCOVERED 3 DAYS AFTER FIRE IN RETURN; FOUGHT UNTIL GAS READINGS REQUIRED EVACUATION; NO INFO ON WATERLINES, BUT IT APPEARS AS THOUGH THEY WERE NOT A FACTOR
79-11-22	FREEMAN UNITED COAL MINING CO. ORIENT NO. 4 #11-00628	O/O	UNDETERMINED DUE TO ROOF FALLS & DAMAGE	INBY	NOT SPECIFICALLY STATED	IDLE SHIFT; WATERLINE PARALLELED BELT ON SOUTH; HOSE CONNECTED 100' OUTBY FIRE; WHEN OPENED, NO PRESSURE; ROOF FALL BROKE THIS WATERLINE LATER; TEMP. WATERLINE CONNECTIONS FROM PORTAL BOTTOM
* 80-01-12	PEABODY COAL CO. MINE NO. 10 #11-00585	O/O	UNDETERMINED DUE TO ROOF FALLS & EXTENT OF FIRE; SPREAD INTO RETURNS		NOT SPECIFICALLY STATED; MINE WAS SEALED	FOUGHT USING WATER, DRY CHEMICAL, ROCK DUST; NO SPECIFIC INFO CONCERNING WATERLINES; NUMEROUS ROOF FALLS OCCURRED MAKING FIGHTING DIFFICULT
80-09-07	SOUTHERN OHIO COAL CO. RACCOON NO. 3 #33-02308	O/O	FRICTION BETWEEN BELT & LOOSE COAL & DUST	INBY	CONFINED TO A SMALL AREA	FIRE FOUGHT USING WATER; NO OTHER INFO AVAILABLE
80-11-01	BARNES & TUCKER CO. LANCASHIRE NO. 24-D MINE #36-00835	O/O	BELIEVED THAT UNDETECTED SPARKS FROM PRIOR CUTTING OPERATIONS STARTED FIRE		STANDING ROOF SUPPORTS, POSTS, LOOSE COAL, & SMALL PORTION OF BELT	FIRE LOCALIZED IN NATURE; FOUGHT WITH WATER FROM WATERLINE PLUS A WATERCAR THAT WAS BROUGHT ONTO THE SECTION
80-12-15	SOUTHERN APPALACHIAN COAL CO. BULL CREEK NO. 4 MINE #46-03442	O/O	FRICTION BETWEEN BELT & BOTTOM ROLLER HANGER IGNITED GREASE & BELT	INBY	NO VISIBLE PROPERTY DAMAGE	TROUBLE ENCOUNTERED UNROLLING FIRE HOSE; AFTER HOSE WAS CONNECTED THE FIRE WAS EXTINGUISHED IN 10 MIN.
81-11-07	CENTRAL APPALACHIAN COAL CO. NO. 4 MINE #46-01337	O/O	BEARING IN TAILPIECE ROLLER OVERHEATED & IGNITED LOOSE COAL IN AREA		LIMITED TO FIRE AREA	FIRST USED EXTINGUISHERS; HOSE FROM DELUGE SYSTEM TURNED ON; WATER FLOW BROKE LINE; REPAIRED & FIRE WAS EXT.; 500' OF HOSE WAS NOT AVAILABLE FOR CONNECTION TO BELT CONV. WATERLINE SYSTEM

* - INCIDENT ALSO CONTAINED IN TABLE 4, FIRES INVOLVING TROLLEY ENTRIES

FIRE EXPERIENCE -- FIRES INVOLVING BELT ENTRIES, 1970-1988

11-09-90

DATE	COMPANY, MINE, ID	F/I	CAUSE OF FIRE	AIR COURSED INBY/OUTBY IN BELT ENTRY	PROPERTY DAMAGE	FIRE FIGHTING REMARKS
81-11-25	BEATRICE POCAHONTAS CO. BEATRICE MINE #44-00238	O/O	FRICTIONAL HEAT FROM BELT IGNITED COMBUSTIBLE MATERIAL IN LONGWALL BELT ENTRY	INBY	NOT SPECIFICALLY STATED; MINE HAD BEEN SEALED	4" WATERLINES INSTALLED ALONG BELT & TRACK; 4" LINES TO THE WORKING SECTIONS; OUTLETS AT 300' INTERVALS; FIGHTING FUTILE DUE TO EXTREME HEAT & LOW PRESSURE; RUBBER GASKETS MELTED
81-12-16	PEABODY COAL CO. STAR NORTH MINE #15-03161	O/O	UNDETERMINED		LIMITED TO FIRE AREA	EXTINGUISHED USING WATER FROM WATERLINE ALONG CONVEYOR BELT; NO SPECIFICS GIVEN
82-02-03	D.O.&W. COAL CO., INC. NO. 5 MINE #44-05027	O/O	ORIGINATED AT ELECTRICAL CONTROL SWITCH BOX WHERE FLOAT DUST WAS IGNITED	INBY	260' OF BELT	WATERLINE IN BELT ENTRY HAD TO BE REPAIRED TO FIGHT FIRE; LINE WAS NOT CHARGED WITH WATER & DID NOT HAVE OUTLET VALVES ON 300' INTERVALS; BELTS WERE NOT PROVIDED WITH 500' HOSE
82-03-04	BCNR MINING CORP. NEWFIELD MINE #36-00809	O/5	ELECTRIC RETURN CURRENT IGNITED COMBUSTIBLE MATERIALS	INBY	BELT DRIVE UNIT, CONVEYOR STRUCTURE, CAR SPOTTER, 190' TROLLEY FEEDER & FEEDER RETURN WIRE	FOUGHT USING FOAM, WATER FROM HOSE & METAL PIPES ATTACHED TO HOSES & USED AS PROBES; 4" METAL WATERLINE WITH OUTLET VALVES PARALLELED TRACK THEN REDUCED TO 2"; FIRE BETWEEN TRACK & BELT
82-03-26	CANNELTON INDUSTRIES INC. NO. 8 MINE #46-01324	O/O	BEARING OVERHEATED IN BOTTOM IDLER ROLLER & IGNITED LOOSE COAL, POSTS, CRIB	INBY	200 BELT ROLLERS, 1600' OF BELT	MINE IDLE; OUTLET VALVE & COUPLINGS IN BELT ENTRY NOT COMPATIBLE WITH HOSE AT SOME LOCATIONS; FIRE OUT 19 HRS AFTER DISCOVERY; 6 OF 10 X-CUTS IN AREA BLOCKED BY ROCK/ROOF FALLS
82-05-21	VIRGINIA POCAHONTAS CO. VIRGINIA POCAHONTAS NO. 2 MINE #44-01009	O/O	COAL DUST & OTHER COMBUSTIBLES WERE IGNITED BY SPARKS FROM A TORCH BEING USED TO DISASSEMBLE THE BELT		NO PROPERTY DAMAGE REPORTED	EXTINGUISHED BY APPLYING ROCK DUST, WATER FROM HOSES; NO SPECIFICS CONCERNING WATERLINE OR FIRE FIGHTING EFFORTS
82-08-24	EMERY MINING CORP. WILBERG MINE #42-00080	O/O	FIRE STARTED AROUND THE GAGES ON ACETYLENE TANK DURING CUTTING OPERATIONS		MINOR DAMAGE TO EQUIPMENT	DRY CHEMICAL EXTINGUISHERS WERE USED BUT THE FIRE COULD NOT BE EXTINGUISHED & WAS ALLOWED TO BURN ITSELF OUT
83-03-15	JIM WALTER RESOURCES INC. NO. 7 MINE #01-01401	O/O	UNDETERMINED	INBY	NO PROPERTY DAMAGE REPORTED	HOSE ON FIRE SUPPRESSION SYSTEM USED TO EXTINGUISH THE SMALL FIRE
83-12-19	EMERALD MINES CORP. EMERALD MINE NO. 1 #36-05466	O/O	BROKEN WIRE ROPE ALLOWED BELT TO RUB AGAINST CRIBS & IGNITED THE CRIB	INBY	CONFINED TO THE BELT CONVEYOR, SOME CABLE, CRIBS USED AS ROOF SUPPORT	6" WATERLINE IN BELT ENTRY; 1-1/2" OUTLETS AT DRIVE, TAILPIECE, & AT 300' INTERVALS; FIRE HOSES & NOZZLES PROVIDED AT DRIVE & STRATEGIC LOCATIONS ALONG BELT; FOUGHT WITH WATER HOSES
83-12-29	EMERY MINING CORP. BEEHIVE MINE #42-00082	O/O	BROKEN DIESEL FUEL LINE IGNITED ON SCOOP		NOT SPECIFICALLY STATED; MINE SEALED	NO REAL FIRE FIGHTING EFFORTS UNDERTAKEN BECAUSE DRY CHEMICAL EXTINGUISHER WAS EMPTY WHEN IT WAS TRIED & FIRE SPREAD QUICKLY; NO MENTION OF WATERLINE LOCATION
84-01-18	GATEWAY COAL CO. GATEWAY MINE #36-00906	O/O	UNDETECTED SPARKS FROM CUTTING OPERATIONS ASCENDED THROUGH A SMALL OPENING BETWEEN PLANKS OF A FALSE ROOF		REPORTED AS MINIMAL	FIRE HOSE NEAR DRIVE USED TO FIGHT FIRE; NOZZLE WAS MISSING & PROLONGED TIME TO EXTINGUISH & MADE IT DIFFICULT; NO MENTION OF WATERLINE
* 84-03-13	PEABODY COAL CO. CAMP NO. 2 MINE #15-02705	O/O	CAUSE UNKNOWN; EITHER PUMP OR DC TROLLEY		NOT SPECIFICALLY STATED; MINE SEALED	EFFORTS TO FIGHT FIRE USING WATER & FLOODING WERE UNSUCCESSFUL; FIRE UNDER A ROOF FALL; MINE SEALED; NO SPECIFICS CONCERNING FIRE FIGHTING ACTIVITIES OR WATERLINE LOCATION
84-03-25	ZEIGLER COAL CO. ZEIGLER NO. 5 MINE #11-01845	O/O	MOLTEN METAL FROM CUTTING OPERATIONS IGNITED COMBUSTIBLE MATERIALS ON FLOOR		NO PROPERTY DAMAGE REPORTED	FIRE IN ABANDONED BELT ENTRY; AREA 9 x 15; FOUGHT WITH 100 GAL FROM WATERCAR INITIALLY, THEN 300 MORE & ROCK DUST; NO INFO CONCERNING WATERLINES

* - INCIDENT ALSO CONTAINED IN TABLE 4, FIRES INVOLVING TROLLEY ENTRIES

FIRE EXPERIENCE -- FIRES INVOLVING BELT ENTRIES, 1970-1988

11-09-90

DATE	COMPANY, MINE, ID	F/I	CAUSE OF FIRE	AIR COURSED INBY/OUTBY IN BELT ENTRY	PROPERTY DAMAGE	FIRE FIGHTING REMARKS
84-04-16	DUNCAN COAL CORP. NO. 3 MINE #46-01718	0/0	LOOSE COAL & DUST ALONG TAKE-UP WERE IGNITED	INBY	12' X 12' AREA AROUND BELT	4" PLASTIC LINE PARALLEL TO BELT IN BELT ENTRY; CONVEYOR WATER WAS USED TO SPRAY ON THE AREA AFFECTED; MINE IDLE PRIOR 30 HRS; NO OTHER INFO ON FIRE FIGHTING
84-08-08	ALLIED COALS INC. ALLIED MINE NO. 2 #15-02288	0/0	FAULTY BELT ROLLER OVERHEATED & IGNITED LOOSE COAL AROUND THE BELT	INBY	10 TIMBER ROOF SUPPORTS	FOUGHT WITH 2" WATERLINE ATTACHED TO WATER SYSTEM; EXTIN. IN 2 HRS; NO INFO ON WATERLINE TYPE OR LOCATION
84-12-19	EMERY MINING CORP. WILBERG MINE #42-00080	27/0	IMPROPERLY MAINTAINED AIR COMPRESSOR OVERHEATED & EXPLODED	INBY	EXTENSIVE; MINE SEALED FOR 1 YEAR	ELECTRIC POWER INADVERTENTLY TURNED OFF RESULTING IN LITTLE OR NO WATER PRESSURE; FIRE SPREAD INTO RETURN VERY QUICKLY; BUILD-UP OF GASES NECESSITATED SEALING
* 85-01-28	CLINCHFIELD COAL CO. SPLASHDAM DEEP MINE #44-00269	0/0	TROLLEY POLE DISENGAGED & ARCING IGNITED HYDRAULIC FLUID FROM SMALL LEAK IN HOSE		150' CONV. BELT; PVC PIPE; BELT CONTROL LINE; FIRE SENSOR LINE; WATERLINE	NO FIRE FIGHTING EFFORTS NECESSARY; NO MENTION OF WATERLINES
85-01-30	U.S. STEEL MINING CO., INC. SHAWNEE MINE #46-05907	0/0	UNDETERMINED DUE TO DAMAGE	INBY	400' BELT, SOME MINE CABLE, ELEC., TELEPHONE	FOUGHT WITH HOSE FOUND AT OUTLET 2 X-CUTS OUTBY THE FIRE; NO SPECIAL PROBLEMS ENCOUNTERED
85-02-24	CRYSTAL MINING CORP. CRYSTAL MINE #36-07080	0/0	UNDETERMINED DUE TO EXTENSIVE DAMAGE		PROPERTY DAMAGE = $100,000	FIRE DID NOT ENTER UNDERGROUND PORTION OF THE MINE; EXTENSIVE DAMAGE
85-03-26	JIM WALTER RESOURCES INC. NO. 7 MINE #01-01401	0/0	CUTTING OPERATIONS IGNITED LOOSE COAL & DUST		NO PROPERTY DAMAGE REPORTED	WATERLINE IN BELT ENTRY; HOSES CONNECTED TO WATERLINE OUTLETS TO FIGHT THE FIRE; NO PROBLEMS ENCOUNTERED
85-05-04	JIM WALTER RESOURCES INC. NO. 4 MINE #01-01247	0/0	UNDETERMINED DUE TO DAMAGE FROM WATER & FOAM (FROM FIRE FIGHTING)	INBY	TAILPIECE, DRIVE UNIT, CABLES, FIRE SENSOR, CO MONITOR, BELT CONTROL DEVICE	NO INFO ON WATERLINES OR SPECIFIC FIRE FIGHTING; FIRE WAS EXTINGUISHED BY APPLYING CHEMICAL EXTINGUIGHERS, WATER, & FOAM
85-05-06	FOUNTAIN BAY MINING CO., INC. MINE NO. 1 #44-05167	0/0	HEAT FROM TURNING ROLLERS RUBBING AGAINST A STALLED BELT	INBY	100' BELT	HEAT CAUSED AN 18" SLIT IN PIPE AT POINT WHERE IT TOUCHED THE DRIVE UNIT; WATER CONTINUOUSLY SPRAYED ON FIRE; 2" PVC LINE USED ADJACENT TO BELT; LINE CUT, OUTLET INSTALLED TO FIGHT FIRE
85-06-07	T & G COAL CO., INC. NO. 1 MINE #15-04079	0/0	SPARK FROM CUTTING OPERATIONS MAY HAVE SMOLDERED INTO A FIRE		COAL DUST; TRACK IN AN 18' LONG x 6' WIDE AREA	NO INFO CONCERNING SPECIFIC FIRE FIGHTING, ONLY THAT WATER WAS USED; 2" PLASTIC WATERLINE USED PARALLEL TO BELT
85-08-18	PYRO MINING CO. PYRO NO. 9 WHEATCROFT MINE #15-13920	0/0	UNDETERMINED		NOT SPECIFICALLY STATED	FIRE ATTACKED FROM 3 SIDES BY APPLICATION OF WATER FROM HOSE; NO SPECIAL PROBLEMS
85-08-23	APACHE COAL CO., INC. NO. 2 MINE #44-05395	0/0	TAIL ROLLER BEARING OVERHEATED & IGNITED SOME LOOSE COAL	INBY	TAILPIECE, 100' BELT, 100' OF 2" PVC WATERLINE	POWER DEENERGIZED SO THAT OUTLET & FIRE HOSE COULD BE INSTALLED ON WATERLINE; ROCK DUST (6 TONS), 7-10# FIRE EXTINGUISHERS WERE ALSO USED; FIRE LASTED 2-1/2 HOURS
* 86-01-04	CONSOLIDATION COAL CO. SHOEMAKER MINE #46-01436	0/0	CURRENT FROM TROLLEY WIRE PASSED THROUGH DEFECTIVE INSULATOR TO I BEAM & IGNITED COMBUSTIBLE MATERIAL	OUTBY	180' CONV. BELT; WOODEN CRIBS, POSTS, PLANKS	FOUGHT WITH 1-1/2" FIREHOSE FROM 4" WATER PIPE IN BELT ENTRY; FIRE CARS & LOCAL FIRE COMPANIES BROUGHT IN; FIRE EXTINGUISHED IN 5-1/2 HRS.; MAJOR DIFFICULTIES FIGHTING FIRE

* - INCIDENT ALSO CONTAINED IN TABLE 4, FIRES INVOLVING TROLLEY ENTRIES

TABLE 3. (Cont.)

FIRE EXPERIENCE — FIRES INVOLVING BELT ENTRIES, 1970-1988

11-09-90

DATE	COMPANY, MINE, ID	F/I	CAUSE OF FIRE	AIR COURSED INBY/OUTBY IN BELT ENTRY	PROPERTY DAMAGE	FIRE FIGHTING REMARKS
86-04-08	CLINCHFIELD COAL CO. SPLASHDAM MINE #44-00269	O/O	HOT SLAG FROM CUTTING OPERATIONS FELL TO MINE FLOOR		NO PROPERTY DAMAGE REPORTED	NO INFO AT ALL ON FIRE FIGHTING SPECIFICS OR WATERLINE PLACEMENT
86-06-23	TLC INC. NO. 1 MINE #15-12303	O/O	GROUND FAULT IN STARTER CONTROL CIRCUIT FOR DRIVE IGNITED COMBUSTIBLES ON MINE FLOOR		NOT SPECIFICALLY STATED	EXTINGUISHED USING 2" FIRE HOSE; NO SPECIFICS ON WATERLINE; DIFFICULTY INITIALLY FIGHTING BECAUSE OF SMOKE BACK-UP; FAN TURNED OFF WHEN FIRE INITIALLY OBSERVED
86-11-06	OLD BEN COAL CO. MINE 21 #11-00588	O/O	SPARKS FROM CUTTING OPERATION IGNITED CRIB		NO PROPERTY DAMAGE REPORTED	IN ABANDONED BELT ENTRY; EXTING. WITH WATER FROM OTHER BELT ENTRY WITH HOSE; NO DETAILS ON FIGHTING EFFORTS; NO PROBLEMS; 4" METAL LINE BEING RECOVERED FROM FLOOR
86-11-27	THE FLORENCE MINING CO. FLORENCE NO. 1 - ROBINSON #36-00925	1/2	SPARKS OR HEAT FROM DEFECTIVE BEARING IN BOTTOM ROLLER IGNITED DUST, CRIBS, POSTS, BELT	INBY	EXTENSIVE DAMAGE TO NO. 2 & 3 BELTS	DIFFICULTY FINDING HYDRANT IN BELT ENTRY DUE TO SMOKE; FOUGHT WITH HOSE TO OUTLET OUTBY FIRE ON WATERLINE; STOPPINGS BETWEEN BELT & TRACK WERE WARM & SMOKE WAS LEAKING AROUND MANDOORS
87-03-17	KAISER COAL CORP. SUNNYSIDE NO. 3 MINE #42-00092	O/O	A STUCK HOT ROLLER IGNITED COAL		NOT SPECIFICALLY STATED	OUT IN 20 MIN.; FOUGHT WITH WATER FROM BUCKETS & HOSES; NO SPECIFIC FIGHTING INFO AVAILABLE
87-04-01	BECKLEY COAL MINING CO. BECKLEY MINE #46-03092	O/O	HEAT FROM BELT RUBBING IGNITED COAL & DUST	INBY	NOT SPECIFICALLY STATED	WATERLINE: 6" TO SLOPE BOTTOM, 4" THROUGHOUT MINE; HIGH PRESS. CAUSED HOSES & COUPLERS TO RUPTURE WHILE FIGHTING FIRE; DIFFICULTIES FROM ROOF FALLS; FOAM USED; AREA FLOODED
87-10-20	THE FLORENCE MINING CO. FLORENCE NO. 1 - ROBINSON #36-00925	O/O	FRICTION BETWEEN MOVING ROLLERS & JAMMED BELT	INBY	15' AREA NEAR DRIVE ROLLERS, INCLUDING BURNT LAGGING, BELT, CRIBS, ETC.	6 AUTO. SPRINKLERS ACTIVATED & SPRAYED WATER ON FIRE; FLEXIBLE HOSE ON SUPPRESSION SYSTEM USED TO SPRAY WATER ON FIRE; NO INFO ON LOCATION OF LINES OR ANY SPECIAL FIRE FIGHTING PROBLEMS
87-12-09	BLAZING SADDLES COAL CORP. MINE NO. 1 #15-13484	O/1	UNDETERMINED DUE TO DAMAGE		SLIP SWITCH, WATER DELUGE SYSTEM, 65-70' OF BELT	NO INFO CONCERNING FIRE FIGHTING ACTIVITIES OR CONDITION OF FIRE SUPPRESSION SYSTEM (DELUGE SYSTEM)
88-03-07	BETHENERGY MINES INC. MARIANNA MINE NO. 58 #36-00957	O/5	FRICTION AT DRIVE ROLLERS IGNITED COAL DUST		NOT SPECIFICALLY STATED; MINE SEALED	WATER NOT READILY AVAIL.; DELUGE TURNED OFF; HOSE WEDGED UNDER DRIVE; 2" METAL LINE IN ENTRY BTW BELT & TROL.;FIRE SPREAD INBY TAKE-UP;HOSE CUT OFF FRAME, NO NOZZLE USED TO CONTROL SPRAY
88-05-09	THE FLORENCE MINING CO. FLORENCE NO. 1 - ROBINSON #36-00925	O/O	FRICTION & HEAT BETWEEN BELT & DAMAGED BOTTOM ROLLER		REPORTED AS MINIMAL	FOUGHT USING 2" WATER HOSE CONNECTED TO THE WATERLINE 2 X-CUTS OUTBY; NO SPECIAL PROBLEMS; FIRE IN INCIPIENT STAGES & LOCALIZED IN NATURE
88-05-13	PEABODY COAL CO. SINCLAIR SLOPE UG NO. 2 #15-07166	O/O	UNDETERMINED DUE TO FIRE DAMAGE & DESTRUCTION OF EVIDENCE		BELT, CRIBBING, FIRE MONITOR LINE, MAIN WATERLINE	HOLE BURNED IN 4" WATERLINE; EXTINGUISHED USING FOAM GENERATOR & WATER; NO OTHER INFO CONCERNING WATERLINE OR FIGHTING EFFORTS
88-08-20	EASTERN ASSOC. COAL CORP. KOPPERSTON NO. 2 MINE #46-01536	O/O	WELDING AT TAKE-UP STARTED THE FIRE FOUND LATER		ESTIMATED AT $25,000	FOUGHT WITH 1/2" WATER HOSE/NOZZLE; SPRINKLER SYSTEMS ALSO ACTIVATED & AIDED IN EXTINGUISHING; NO PROBLEMS MENTIONED FIGHTING & NO INFO CONCERNING WATERLINE
88-11-15	BRENT COAL CORP. NO. 1 MINE #44-01635	O/O	UNDETERMINED DUE TO FIRE DAMAGE	INBY	EXTENSIVE DAMAGE TO NO. 2 BELT DRIVE, CONVEYOR, CONTROLS, DELUGE, COMMUNICATION, FIRE SENSOR SYSTEM	COULD NOT GET TO HOSE AT DRIVE UNIT BECAUSE OF INTENSE HEAT; FIGHTING EQUIPMENT NOT STORED AT STRATEGIC LOCATIONS; LOCAL FIRE DEPT. PROVIDED HOSE TO EXTINGUISH FIRE

* - INCIDENT ALSO CONTAINED IN TABLE 4, FIRES INVOLVING TROLLEY ENTRIES

TABLE 4.

11-09-90

FIRE EXPERIENCE -- FIRES INVOLVING TROLLEY ENTRIES, 1970-1988

DATE	COMPANY, MINE, ID	F/I	CAUSE OF FIRE	PROPERTY DAMAGE	FIRE FIGHTING REMARKS
70-01-30	SHOEMAKER COAL CO. NO. 3 MINE #02129	0/0	FIRE STARTED BY TRESPASSERS WHILE BURNING INSULATION OFF FEEDER CABLES IN THIS UNSEALED ABANDONED MINE	CONFINED TO A LARGE ROOF FALL IN THE FIRE AREA	FIRE FIGHTING HAMPERED BY A ROOF FALL; LARGE SUPPLY OF WATER AVAILABLE IN A SUMP 450' OUTBY FIRE; MINE HAD BEEN ABANDONED FOR 9 MONTHS
70-04-11	MOUNTAINEER COAL CO. ROBINSON RUN NO. 95 MINE	0/0	A) ROOF FALL CAUSED FAULT ON TROLLEY WIRE OF LOCOMOTIVE OR, B) CONTROLLER ON LOCOMOTIVE LEFT ON & HEAT IGNITED LOOSE TOP COAL	LIMITED TO THE LOCOMOTIVE	UNSUCCESSFUL BY DIRECT ATTACK WITH WATER; WATER LINE HAD SEPARATED FROM THE HEAT OR A ROOF FALL; MINE WAS SEALED
70-05-23	U.S. STEEL CORP. ROBENA MINE	0/0	TROLLEY WIRE DISLODGED BY ROOF FALL	DISCONNECT SWITCH	FIRE WAS EXTINGUISHED PROMPTLY WITH FIRE EXTINGUISHERS AND WATER FROM A NEARBY HYDRANT (NO INFO ON LOCATION)
70-05-27	THE BUCKEYE COAL CO. NEMACOLIN MINE	0/0	ROOF FALL CAUSED TROLLEY LINE TO ARC	NO PROPERTY DAMAGE	WATER CARS, ROCK DUSTERS, FIRE EXTINGUISHERS; NO PROBLEMS WITH HOSE STRETCHING OR PUMPER
70-06-12	JONES & LAUGHLIN STEEL CORP. SHANNOPIN MINE	0/0 (4 SMOKE)	ELECTRICAL FAULT IN WIRING AT CONTACTORS STARTED THIS LOCOMOTIVE FIRE	LIMITED TO THE LOCOMOTIVE	5 20# FIRE EXTINGUISHERS AND ROCK DUST WERE USED TO EXTINGUISH THE FIRE; WATER NOT USED TO EXTINGUISH, ONLY TO COOL THE HOT METAL LATER
71-03-26	THE BUCKEYE COAL CO. NEMACOLIN MINE	3/0	TROLLEY WIRE INSULATION BECAME GROUNDED & HEATED CAUSING WIRE TO FALL TO RAIL	SOME CABLES AND ROOF	A WATERLINE PARALLELING HAULAGE ROAD WAS BROKEN TO ALLOW THE WATER TO FLOW INTO THE AREA; WATER TRUCK BROUGHT IN TO DIRECTLY FIGHT FIRE; MINE EVACUATED DUE TO DANGEROUS GAS LEVELS
71-09-24	U.S. FUEL CO. KING MINE	0/0	SHORT CIRCUIT IN ELEC. WIRING WHEN INSULATION WAS WORN TO THE EXTENT THAT CONTACT OCCURRED BETWEEN WIRING & LOCOMOTIVE FRAME	CONFINED TO LOCOMOTIVE	TRIED TO USE AN EXT. BUT IT CAME APART; NO OTHER SPECIFICS GIVEN
+ 72-03-08	OLGEBAY NORTON CO. SAGINAW NO. 1 MINE	0/0	ROOF BOLTER BEING TRANSPORTED CONTACTED THE TROLLEY WIRE WHILE CROSSING THE SUPPLY TRACK	SOME CABLES AND INSULATION	ROOF FALLS OCCURRED DUE TO FIRE; WATER HOSE CONNECTED TO THE 3" WATER LINE IN HAULAGE ENTRY TO EXTINGUISH THE FIRE; PERSONNEL SHOCKED WHEN ATTEMPTED TO OPERATE FIRE SUPP. SYSTEM ON MACHINE
72-05-06	BLUE DIAMOND COAL CO. OWENS BRANCH MINE #15-02083	0/1	WHILE ROOF-BOLTING IN TRACK ENTRY, PROTRUDING WIRE ON HOSE CONTACTED TROLLEY WIRE; HOSE & OIL WERE IGNITED	CONFINED TO ROOF-BOLTING MACHINE	FOUGHT DIRECT WITH ROCK DUST & FIRE EXTINGUISHERS; WATER LINES WITH SUITABLE HOSE & EXTINGUISHERS PRESENT AT STRATEGIC LOCATIONS
72-07-22	CONSOLIDATION COAL CO. BLACKSVILLE NO. 1 MINE	9/0	CONTINUOUS MINER BEING MOVED CONTACTED THE ENERGIZED TROLLEY WIRES	AREA PERMANENTLY SEALED	FIRE HOSE CONNECTED TO WATER OUTLET IN WATERLINE ALONG BELT; FIRE FIGHTING STARTED TOO LATE TO BE EFFECTIVE; NO PROBLEMS MENTIONED WITH WATER LINES; AREA PERMANENTLY SEALED
72-08-03	U.S. STEEL CORP. MAPLE CREEK NO. 2 MINE	0/0	ELECTRICAL FAULT IN POWER CABLES LEADING TO THE TROLLEY POLE	LIMITED TO LOCOMOTIVE TROLLEY POLE & INSULATION	FIRE EXTINGUISHED IN <10 MIN.; NO WATER USED TO EXTINGUISH THE FIRE
72-09-11	U.S. STEEL CORP. MAPLE CREEK NO. 1 MINE	0/0	ROOF BOLT BEING TRANSPORTED IN MINE CAR CONTACTED 550 VDC TROLLEY WIRE	LIMITED TO AN 8" DIAMETER HOLE THROUGH SIDE OF MINE CAR	4-20# & 1-10# DRY CHEM. EXTS. USED WITHOUT SUCCESS; 1/2" HOSE TO 4" WATERLINE IN ADJACENT ENTRY USED TO EXT. FIRE
72-09-26	MOUNTAINEER COAL CO. WILLIAMS MINE	0/0	LOOSE CONTROLS LED TO ARCING INSIDE THE RECTIFIER (IN X-CUT BETWEEN TRACK & INTAKE)	LIMITED TO THE RECTIFIER; FIRE DID NOT SPREAD TO COAL RIB OR ROOF	WATERLINE INSTALLED ALONG TRACK HAULAGEWAY; FIRE EXTINGUISHERS AND HOSE CONNECTED TO A NEARBY OUTLET IN WATERLINE WERE USED TO EXTINGUISH THE FIRE

* - INCIDENT ALSO CONTAINED IN TABLE 3, FIRES INVOLVING BELT ENTRIES
\+ - BELT & TROLLEY ENTRIES ADJACENT AND NOT PHYSICALLY SEPARATED
++ - BELT & TROLLEY IN SAME ENTRY

FIRE EXPERIENCE -- FIRES INVOLVING TROLLEY ENTRIES, 1970-1988

11-09-90

DATE	COMPANY, MINE, ID	F/I	CAUSE OF FIRE	PROPERTY DAMAGE	FIRE FIGHTING REMARKS
72-12-01	BETHLEHEM MINES CORP. MARIANNA NO. 58 MINE	0/0	RECTIFIER FIRE PROBABLY DUE TO POOR CONTACT BTW. THE CIRCUIT BREAKER MOVABLE & STATIONARY CONTACTS OR A DEFECTIVE ARC SUPPRESSOR	LIMITED TO THE RECTIFIER CIRCUIT BREAKER	2-20# FIRE EXTS. USED; ROCK DUST APPLIED TO HOT MATERIAL WHEN FIRE WAS EXTINGUISHED; SELF-RESCUERS NOT USED, NO SMOKE ENCOUNTERED
72-12-02	THE BUCKEYE COAL CO. NEMACOLIN MINE	0/1	PROBABLY A HIGH RESISTANCE GROUND OCCURRED IN VICINITY OF THE CONTROLLER OF THE LOCOMOTIVE	EXTENSIVE TO CONTROLLER & SURROUNDING AREA; COULD NOT DETERMINE INITIAL FAULT	FIRE EXTINGUISHER USED SUCCESSFULLY
73-04-23	U.S. STEEL CORP. MAPLE CREEK NO. 2 MINE	0/0	IMPOSSIBLE TO DETERMINE DUE TO EXTENSIVE DAMAGE TO ELECTRICAL WIRING IN FIRE AREA	LIMITED TO 2 CABLES, ELEC. COMPONENTS, METAL PIPING FOR BRAKE SYS, DISCONNECT SWITCH, & SWITCH GUARD BOARDS	FIRE EXTINGUISHER USED TO EXTINGUISH THE FIRE; NO OTHER SPECIFICS GIVEN
73-06-08	JONES & LAUGHLIN STEEL CORP. VESTA NO. 4 MINE	0/0	TROLLEY ANCHOR DISLODGED & ARCING IGNITED CAR OF COMBUSTIBLE RUBBISH PARKED BELOW	CONFINED TO RUBBISH IN THE MINE CAR & 3 FEET OF TROLLEY GUARD BOARD	2-15# & 1-20# ABC DRY-CHEM. FIRE EXTS. USED; ROCK DUST & WATER APPLIED TO PREVENT REKINDLING
73-07-11	THE NACCO MINING CO. POWHATAN NO. 6 MINE #33-01159	0/1 (9 SMOKE)	COMPRESSOR BEING TRANSPORTED CONTACTED THE TROLLEY WIRE AND IGNITED RUBBER HOSE	100' TRAILING CABLE, 75' COMPRESSOR HOSE	ROCK DUST & DRY POWDER EXTINGUISHERS PUT OUT FIRE BY THE TIME FIREHOSE WAS LAID OUT FROM BELT ENTRY
73-08-25	THE BUCKEYE COAL CO. NEMACOLIN MINE #36-00904	0/0	GROUND FAULT ON LOCOMOTIVE	HOLE BURNED IN COMPRESSOR; LOCOMOTIVE AND CABLES	FIRE EXTINGUISHERS USED SUCCESSFULLY; NO OTHER SPECIFICS GIVEN
73-11-13	U.S. STEEL CORP. ROBENA NO. 1 MINE	0/0	SHORT CIRCUIT OCCURRED ON A TROLLEY LOCOMOTIVE	NOT SPECIFICALLY STATED	2-20# DRY CHEMICAL EXTINGUISHERS USED SUCCESSFULLY; NO SPECIFICS ON WATERLINE MENTIONED
73-12-06	U.S. STEEL CORP. MAPLE CREEK NO. 2 MINE	0/0	DERAILMENT OF 5 CARS ALLOWED A CAR TO CONTACT THE TROLLEY WIRE	CONFINED TO SECTIONAL INSULATOR & 8" OF INSULATION ON TROLLEY FEEDER CABLE	1-20# ABC EXTINGUISHER USED UNSUCCESSFULLY; SECOND 20# EXTINGUISHER SUCCESSFULLY PUT FIRE OUT
73-12-29	U.S. STEEL CORP. ROBENA NO. 2 MINE	0/0	SHUTTLE CAR BEING TRANSPORTED CONTACTED TROLLEY FEEDER WIRE	NO EXTENSIVE DAMAGE REPORTED; SOME INSULATION & GUARD MATERIAL	4 EXTS. USED UNSUCCESSFULLY; 2 MORE USED SUCCESSFULLY; NO SPECIFICS ON WATERLINE LOCATIONS
74-05-07	PEABODY COAL CO. DEER CREEK MINE #0255	0/0	SPARKS FROM CUTTING OPERATIONS FELL ONTO COMBUSTIBLE MATERIALS ON THE ROOF BOLTER	LIMITED TO THE MID-SECTION OF THE ROOF BOLTING MACHINE	2-10#, 2-20#, 7-30# EXTINGUISHERS WERE AIDED BY WATER OBTAINED BY UTILIZING A DISCHARGE LINE FROM A NEARBY GATHERING PUMP TO PUT OUT THE FIRE
74-08-31	ROCHESTER & PITTSBURGH COAL CO. JANE NOS. 1 & 2 MINE	1/1	SHORT CIRCUIT BETWEEN ROOF BOLTER & TROLLEY IGNITED HYDRAULIC FLUID	CONFINED TO THE TROLLEY WIRE, POWER CABLE, ELECTRICAL & HYDRAULIC COMPONENTS OF ROOF BOLTER	CHEMICAL FIRE EXTINGUISHERS DIRECTLY FOUGHT FIRE; FIRE WAS EXTINGUISHED IN 15 MIN.
75-01-21	EASTERN ASSOC. COAL CORP. FEDERAL NO. 1 MINE	0/0	DERAILMENT LED TO SHORT CIRCUIT OF TROLLEY WIRE THAT IGNITED WOOD CRIBS	CONFINED TO SEVERAL BURNED AREAS ON MINE CARS AND BURNED WOOD CRIBBING	FIRE WAS EXTINGUISHED WITHIN 2 HOURS WITH FIRE EXTINGUISHERS AND WATER; PORTABLE WATER CAR BROUGHT WATER TO FIRE
75-09-13	REPUBLIC STEEL CORP. CLYDE MINE	0/0	ROOF FALL DISLODGED TROLLEY WIRE WHICH CONTACTED THE TRACK	REPORTED AS MINIMAL	FIRE EXTINGUISHED WITH DRY CHEMICAL TYPE EXTINGUISHERS & 2-1" WATER HOSES CONNECTED TO WATERLINE IN ADJACENT BELT ENTRY

* - INCIDENT ALSO CONTAINED IN TABLE 3, FIRES INVOLVING BELT ENTRIES
\+ - BELT & TROLLEY ENTRIES ADJACENT AND NOT PHYSICALLY SEPARATED
++ - BELT & TROLLEY IN SAME ENTRY

FIRE EXPERIENCE -- FIRES INVOLVING TROLLEY ENTRIES, 1970-1988

11-09-90

DATE	COMPANY, MINE, ID	F/I	CAUSE OF FIRE	PROPERTY DAMAGE	FIRE FIGHTING REMARKS
75-11-06	THE VALLEY CAMP COAL CO. VALLEY CAMP NO. 3 MINE	0/0	SHORT CIRCUIT IN A COMBINATION OF STORAGE BATTERIES	CONFINED TO WITHIN THE STORAGE BATTERY COMPARTMENT	ROCK DUST & FIRE EXTINGUISHERS PUT FIRE OUT WITHIN 1 HOUR
76-06-29	CANNELTON INDUSTRIES INC. LADY DUNN NO. 105 MINE #46-01325	0/0	CUTTING OPERATIONS IGNITED COMBUSTIBLE MATERIALS UNDER A ROOF FALL	NOT SPECIFICALLY STATED	2 WATER CARS IN TROLLEY ENTRY WERE INBY FIRE & WERE NOT ACCESSIBLE; FIRE WAS EXTINGUISHED 1 WEEK LATER BY PUMPING WITH FIRE TRUCKS
76-07-07	THE NORTH AMERICAN COAL CORP. JENSIE MINE #33-00977	0/0	TROLLEY SWITCH FOR LOCOMOTIVE SHORTED & CAUGHT FIRE	INSULATION & CABLES ON LOCOMOTIVE	FIRE EXTINGUISHER USED TO EXT. LOCOMOTIVE FIRE, BUT ERUPTED AGAIN; CHANGED VENTILATION, FIRE EXTINGUISHED IN 45 MIN.; NO MENTION OF WATER BEING USED
76-12-31	WESTMORELAND COAL CO. HAMPTON NO. 3 MINE #46-01283	0/0	WHILE MOVING BELT DRIVE IN TRACK ENTRY, A WIRE USED TO HOLD INSULATION OVER DRIVE CONTACTED TROLLEY & IGNITED WOODEN SUPPORTS	REPORTED AS NEGLIGIBLE	EXTINGUISHERS DIDN'T WORK; FIRE HOSE FROM BELT DRIVE WAS CONNECTED TO WATER OUTLET IN THE ADJACENT BELT ENTRY; FIRE WAS EXTINGUISHED WITHIN 2 HOURS
77-02-07	BETHLEHEM MINES CORP. REVLOC MINE 32 #36-00842	1/0	ROOF FALL CAUSED TROLLEY WIRE TO CONTACT ROOF SUPPORT STEEL BEAMS IGNITING COAL	EXTENSIVE DAMAGE - NOT DETAILED	ROOF FALLS & HEAVY SMOKE HAMPERED FIGHTING PROCEDURES; EXTINGUISHERS USED FIRST FOLLOWED BY WATER FROM WATERLINE; AREA EVENTUALLY INUNDATED WITH WATER TO EXTINGUISH FIRE
* 77-03-20	EASTERN ASSOC. COAL CORP. KOPPERSTON NO. 1 MINE #46-01537	0/0	HEAT IGNITED MATERIALS AT BOOMMAN'S SHANTY	NOT SPECIFICALLY STATED	FIRE AT TRANSFER STA.; FOUGHT FIRST WITH DRY CHEM. EXT. THEN WATERCAR; PRESSURE NOT MAINTAINED IN WATERLINES ALONG TRACK SINCE WAS NON-PRODUCING SHIFT
77-04-10	JONES & LAUGHLIN STEEL CORP. VESTA NO. 5 MINE #36-00962	0/0	ROOF FALL CAUSED SHORT CIRCUIT BETWEEN TROLLEY & TRACK	STRUCTURAL DAMAGE IN TRACK ENTRY	DIRECTLY APPLIED WATER & ALTERED VENTILATION; ROOF FALLS CAUSED PROBLEMS, SO SEALS WERE ERECTED
77-10-21	OLD BEN COAL CO. NO. 26 MINE #11-00590	0/0	OIL FILLED CIRCUIT BREAKER CAME INTO CONTACT WITH TROLLEY WIRES WHILE BEING TRANSPORTED	CONFINED TO CIRCUIT BREAKER & 20' PIECE OF CABLE	ROCK DUST, FIRE EXTINGUISHERS, THEN WATER HOSE FROM THE LINE ADJACENT TO THE BELT CONVEYOR ENTRY EXTINGUISHED THE FIRE WITHIN 1 HOUR
77-10-22	U.S. STEEL CORP. CONCORD MINE #01-00329	0/0	SHUTTLE CAR BEING TRANSPORTED PUSHED TROLLEY & FEEDER WIRE INTO STEEL BEAMS; ARCS IGNITED WOODEN LAGGING	TROLLEY WIRE	FIRE EXTINGUISHERS FOLLOWED WITH WATER; NO REAL DIFFICULTIES FIGHTING THE FIRE; FIRE OUT 13 HOURS LATER
78-08-17	SOUTHERN OHIO COAL CO. MEIGS NO. 1 MINE #33-01172	0/0	TRAILING CABLE ON COMPRESSOR SHORT CIRCUITED & IGNITED CABLE & WOOD CRIBS	CONFINED TO 150' OF CABLE & 7-4"x4"x4' CRIBBING BLOCKS	FIRST TRIED EXTINGUISHERS; LATER HOOKED AIR HOSE TO WATERLINE IN THE ADJACENT BELT ENTRY; FIRE OUT IN 2 HOURS; NO MAJOR DIFFICULTIES
78-09-13	ARMCO INC. ROBIN HOOD NO. 8 MINE #46-01266	0/0	ROOF FALL RESULTED IN TROLLEY WIRE SHORTING TO TRACK	NOT SPECIFICALLY STATED	APPLIED WATER WITH 1" WATER HOSE FOR 16-18 HOURS; BUILT DAMS TO FLOOD AREA; FIRE OUT 1 DAY LATER
78-12-08	AMAX COAL CO. WABASH MINE #11-00877	0/0 (6 SMOKE)	CONVEYOR TAILPIECE BEING TRANSPORTED CONTACTED TROLLEY WIRE	NOT SPECIFICALLY STATED	MORTAR MIX USED FIRST (NO EXT. ON LOCOMOTIVE); PROCEDURES HAMPERED BY UNSUCCESSFUL ATTEMPT TO CONNECT FIRE HOSE TO A CORRODED WATERLINE OUTLET
78-12-27	ISLAND CREEK COAL CO. FIES MINE #15-02018	0/0	SHUTTLE CAR BEING TRANSPORTED CONTACTED TROLLEY WIRE	CONFINED TO CABLE REEL & ONE TIRE ON SHUTTLE CAR	FIRE EXTS. & ROCK DUST; THEN HOSE FROM BELT DRIVE TO FIRE AREA; TOOK 4 HRS. TO LAY HOSE OUT BECAUSE LINE WAS BEING RECOVERED AS BELT WAS PRIOR TO MOVING EQUIPMENT

* - INCIDENT ALSO CONTAINED IN TABLE 3, FIRES INVOLVING BELT ENTRIES
\+ - BELT & TROLLEY ENTRIES ADJACENT AND NOT PHYSICALLY SEPARATED
++ - BELT & TROLLEY IN SAME ENTRY

TABLE 4. (Cont.)

FIRE EXPERIENCE — FIRES INVOLVING TROLLEY ENTRIES, 1970-1988

11-09-9(

DATE	COMPANY, MINE, ID	F/I	CAUSE OF FIRE	PROPERTY DAMAGE	FIRE FIGHTING REMARKS
79-07-10	CONSOLIDATION COAL CO. HUMPHREY NO. 7 MINE	0/1	FIRE STARTED IN JUNCTION BOX	TROLLEY POLE, POLE CABLES, JUNCTION BOX, ELECTRICAL CIRCUITS	FIRE EXTINGUISHED IN 2 MIN.; NO INFO AS TO HOW THE FIRE WAS EXTINGUISHED PRESENT IN REPORT
80-01-12	PEABODY COAL CO. MINE NO. 10 #11-00585	0/0	UNDETERMINED DUE TO ROOF FALLS & EXTENT OF FIRE; SPREAD INTO RETURNS	NOT SPECIFICALLY STATED; MINE WAS SEALED	FOUGHT USING WATER, DRY CHEMICAL, ROCK DUST; NO SPECIFIC INFO CONCERNING WATERLINES; NUMEROUS ROOF FALLS OCCURRED MAKING FIGHTING DIFFICULT
80-08-27	CONSOLIDATION COAL CO. OSAGE NO. 3 MINE #46-01455	0/0	NEGATIVE FEED CONDUCTOR & POSITIVE TRACK SHORTED	CONDUCTORS, INSULATION	WATER USED; PUMPED INTO CASING AT BORE HOLE; FIRE EXTINGUISHED IN 1-1/2 HOURS
81-10-14	THE YOUGHIOGHENY & OHIO COAL CO NELMS NO. 2 MINE #33-00968	0/1	PERSONNEL CARRIER CONTACTED TROLLEY POLE HARP AND SLIDE ASSEMBLY	CONFINED TO THE PERSONNEL CARRIER	ROCK DUST, FIRE EXTINGUISHERS, PORTABLE WATER CAR & WATER FROM WATERLINE IN ADJACENT BELT CONVEYOR ENTRY USED TO EXTINGUISH THE FIRE IN 55 MIN.
82-02-05	THE NORTH AMERICAN COAL CORP. POWHATAN NO. 1 MINE #33-00938	0/0	TRAILING CABLE EXPLODED & IGNITED	NOT SPECIFICALLY STATED; SEALED	DRY POWDER EXTINGUISHERS FIRST; HEAVY SMOKE GAVE PERSONNEL TROUBLE; WATER FROM MAIN LINE; SUFFICIENT WATER PRESSURE TO FIGHT FIRE WAS LACKING; SEALED
82-10-10	CONSOLIDATION COAL CO. HUMPHREY NO. 7 MINE #46-01453	0/0	ROOF FALL CAUSED TROLLEY TO CONTACT STEEL ROOF SUPPORTS, IGNITING WOODEN LAGGING	STRUCTURAL DAMAGE IN ENTRY	FIRE EXTINGUISHERS THEN WATER CAR BROUGHT IN; 2 MORE WATER CARS FOLLOWED; NO PROBLEMS IN WATER LINES OR FIGHTING ACTIVITIES
82-11-10	THE NACCO MINING CO. POWHATAN NO. 6 MINE #33-01159	0/0	CABLE REEL ON COMPRESSOR BECAME OVERHEATED; (450' OF CABLE ON REEL)	CABLE	FIRE EXTINGUISHERS, THEN HOSE CONNECTED TO OUTLET IN BELT ENTRY; FIRE OUT IN 1 HR.; NO MAJOR PROBLEMS
82-11-17	JONES & LAUGHLIN STEEL CORP. NEMACOLIN MINE #36-00904	0/0	RECTIFIER CONTACTS OPENED DUE TO A REMOTE ROOF FALL WHICH DROPPED TROLLEY LINES; ARCING IN RECTIFIER IGNITED IT	CONFINED TO DC CONTACTOR, CONTROL WIRING AND BUS BARS BETWEEN CONTACTOR AND RECTIFIER	FIRE EXTINGUISHERS PUT FIRE OUT IN 1 HR. 15 MIN.; WATER USED AFTER AS A PRECAUTION; NO MAJOR PROBLEMS
82-11-28	THE NORTH AMERICAN COAL CORP. POWHATAN NO. 3 MINE #33-00939	0/0 (2 SMOKE)	COMPRESSOR OVERHEATED; SAFETY SWITCH HAD BEEN DISCONNECTED	COMPRESSOR	FIRE EXTINGUISHERS USED; DENSE SMOKE MADE FIGHTING DIFFICULT; FIRE SELF-EXTINGUISHED
84-02-24	WOLF CREEK COLLIERIES INC. NO. 4 MINE #15-04020	0/0	PUMP ELECTRICAL CABLE SPLICE ARCED IGNITING COAL & WOODEN CRIBS	FAIRLY LOCALIZED IN UNDERCAST	FIRE EXTINGUISHED WITHIN 2 HRS. WITH 2 1-1/2" FIRE HOSES FROM A 3" WATERLINE & 20 STAGE ELECTRIC WATER PUMP
84-03-13	PEABODY COAL CO. CAMP NO. 2 MINE #15-02705	0/0	CAUSE UNKNOWN; EITHER PUMP OR DC TROLLEY	NOT SPECIFICALLY STATED; SEALED	EFFORTS TO FIGHT FIRE USING WATER & FLOODING WERE UNSUCCESSFUL; FIRE UNDER A FALL & HEAVY TIMBERED AREA PRECLUDED LOADING OUT; MINE SEALED; NO SPECIFICS ON FIGHTING OR WATERLINE LOCATION
84-07-12	CLINCHFIELD COAL CO. McCLURE NO. 1 MINE #44-04251	0/0	INSULATION BREAKDOWN BETWEEN CELLS OF BATTERY IN TRACK ENTRY	LOCALIZED	NO WATER USED; FIRE EXTINGUISHERS & ROCK DUST USED; FIRE COMPLETELY OUT 6 HRS. LATER
84-10-18	WESTMORELAND COAL CO. BULLITT MINE #44-00304	0/4 (6 SMOKE)	FAULTY SPLICE IN ELECTRICAL CABLE IN X-CUT BETWEEN TRACK & BELT	LOCALIZED	NOT MUCH INFO REPORTED ABOUT FIGHTING; FIRE OUT IN 5-15 MIN.; HEAVY SMOKE ENCOUNTERED BY MEN INBY THE FIRE; SECTION WATERLINE IN BELT ENTRY; SR'S AND SCSR'S USED

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+ - BELT & TROLLEY ENTRIES ADJACENT AND NOT PHYSICALLY SEPARATED
++ - BELT & TROLLEY IN SAME ENTRY

FIRE EXPERIENCE -- FIRES INVOLVING TROLLEY ENTRIES, 1970-1988

11-09-90

	DATE	COMPANY, MINE, ID	F/I	CAUSE OF FIRE	PROPERTY DAMAGE	FIRE FIGHTING REMARKS
* +	85-01-28	CLINCHFIELD COAL CO. SPLASHDAM DEEP MINE #44-00269	O/O	TROLLEY POLE DISENGAGED & ARCING IGNITED HYDRAULIC FLUID FROM SMALL LEAK IN HOSE	150' CONV. BELT, PVC PIPE, BELT CONTROL LINE, FIRE SENSOR LINE; CONSIDERABLE DAMAGE TO WATERLINE OBSERVED	NO FIRE FIGHTING EFFORTS NECESSARY; NO MENTION OF WATERLINES
*	86-01-04	CONSOLIDATION COAL CO. SHOEMAKER MINE #46-01436	O/O	CURRENT FROM TROLLEY WIRE PASSED THROUGH DEFECTIVE INSULATOR TO I BEAM & IGNITED COMBUSTIBLE MATERIAL	180' CONV. BELT; WOODEN CRIBS, POSTS, PLANKS	FOUGHT WITH 1-1/2" FIREHOSE FROM 4" WATER PIPE IN BELT ENTRY; FIRE CARS & LOCAL FIRE COMPANIES BROUGHT IN; FIRE EXTINGUISHED IN 5-1/2 HRS.
	86-03-12	CONSOLIDATION COAL CO. AMONATE NO. 31 MINE #46-04421	O/O	COMPRESSOR IGNITED WHEN OIL LINE RUPTURED	LOCALIZED	10 FIRE EXTINGUISHERS USED TO PUT FIRE OUT IN 1 HR.
	86-10-06	EASTERN ASSOC. COAL CORP. KOPPERSTON NO. 1 MINE #46-01537	O/O	ELECTRICAL SHORT CIRCUIT BETWEEN PORTAL BUS TROLLEY POLE & FRAME OF BUS	CONFINED TO PORTAL BUS & 7 SCSR'S	SMALL LOCALIZED FIRE WAS FOUGHT WITH CHEM. EXTINGUISHERS; VENTILATION WAS CHANGED TO CLEAR SMOKE; FIRE OUT IN 2 HRS.
+	87-03-17	QUARTO MINING CO. POWHATAN NO. 4 MINE #33-01157	O/O	WINDINGS IN TRANSFORMER SHORTED; LED TO FIRE IN POWER CENTER	INSULATION IN POWER CENTER	EXTINGUISHERS THEN WATER FROM 4" LINE IN ADJACENT BELT ENTRY & WATER PUMP IN TRACK ENTRY; FIRE OUT IN 45 MIN.
	86-07-16	SHANNOPIN MINING CO. SHANNOPIN MINE #36-00907	O/O	TROLLEY HANGER FAILED & ALLOWED WIRE TO CONTACT OVERCAST	OVERCAST	USED WATER FROM 6" LINE IN DRIFT OPENING; FIRE EXTINGUISHED IN 3 HOURS
	87-11-20	CONSOLIDATION COAL CO. BLACKSVILLE NO. 1 MINE #46-01867	O/O	POLYURETHANE FOAM SEAL IGNITED BY SPARKS FROM WELDING OPERATION	LOCALIZED	FIRE EXTINGUISHED IN 1 HR. BY CHEMICAL FIRE EXTINGUISHERS, THEN WATER
	88-09-01	BETHENERGY MINES INC. CAMBRIA SLOPE MINE NO. 33 #36-00840	O/O	A PROLONGED CIRCUIT OVERLOAD RESULTED IN AN INSULATION FAILURE & SHORT CIRCUIT LED TO A SUPPLY LOCOMOTIVE FIRE	EXTENSIVE DAMAGE TO SUPPLY LOCOMOTIVE	3-20# & 7-5# EXTINGUISHERS & ROCK DUST USED TO EXT. THE FIRE: WATER USED TO COOL MOTOR & SURROUNDING AREA

* - INCIDENT ALSO CONTAINED IN TABLE 3, FIRES INVOLVING BELT ENTRIES
\+ - BELT & TROLLEY ENTRIES ADJACENT AND NOT PHYSICALLY SEPARATED
++ - BELT & TROLLEY IN SAME ENTRY