Ex37

HUDSON BAY MINING & SMELTING CO., LIMITED
PO Box 1500
Flin Flon
Manitoba R8A 1N9
CANADA

Tel: (204) 687-2238
Fax: (204) 687-5077
e-mail: hbmscu1@mb.sympatico.ca

December 8, 2000

Exhibit #37

Mr JE Hewitt
Mines Inspection Branch
Room 202 - 143 Main Street
Provincial Building
Flin Flon
Manitoba R8A 1K2

Ref: \hse\lt2000mi27

Dear Mr Hewitt

Re: Report of investigation of the reverb furnace incident of August 8, 2000.

Attached please find the written report of December 8, 2000, with respect to the above incident.

The investigation by the Joint Committee has been ongoing since the time of the incident as per MR 228/94 Section 24(1). The committee has worked very hard in an effort to reach a joint report, but the members of the committee are not able to reach consensus on the Observations, Conclusions and Recommendations sections of the report. Please note that the committee has reached consensus on the factual portion of the report.

The attached report was tabled yesterday with the Joint Safety & Health Committee. This report was prepared by the management representatives of this Committee, in an attempt to further facilitate the process of producing a report which we believed would be an acceptable compromise to both the management and workers' representatives of the committee.

This report was not viewed as acceptable by the worker representatives and they have advised me that they will be providing you separately with their own report. The management representatives wish to advise you that we do not concur with the conclusions and recommendations as stated in the report tabled by the workers' representatives of the committee.

Yours faithfully

ATC Hair
Management Safety & Health Co-chair
General Superintendent, Smelter & Powerhouse

cc:

Kevin Allen	Ian Cooper	Rod Leydon	Erik Nasselquist
Scott Anderson	Ralph Ellingson	Tom Lindsey	Gary Willetts
Rod Bilitski	Bill Fulford	Pat Merrin	Marv Zimmer
Lyle Bryson	Tom Goodman	Dallas Mymko	Bulletin Boards/File

December 8, 2000

THE SMELTER/POWERHOUSE JOINT WORKPLACE SAFETY AND HEALTH COMMITTEE REPORT ON THE FATALITY OF STEVEN R. EWING AND INJURIES TO OTHER EMPLOYEES, AS A RESULT OF EXPLOSIONS IN THE REVERB FURNACE OF HUDSON BAY MINING & SMELTING CO. LTD. ON AUGUST 8, 2000.

On August 08, 2000 between 1:40 am and 1:45 am a series of explosions occurred in the Smelter Reverb Furnace. The explosions occurred during the wash down of the reverb furnace as part of the 2000 Smelter Shutdown.

As a result of the explosions thirteen employees (eleven from HBM&S, one from Derrick Concrete, and one from United Rentals) suffered injuries requiring them to be sent to the Flin Flon General Hospital after receiving first aid on site. Six employees were hospitalized while the other seven were treated and released. Of those hospitalized four workers were transported by Air Ambulance to burn units at hospitals in Winnipeg, Regina and Edmonton. Another one of those initially hospitalized in Flin Flon was later transported to the hospital in Winnipeg. There were also a number of employees who received first aid on site and at least one other who later seen by his own doctor.

Steven R. Ewing, age 33, died of his injuries at the Health Sciences Centre, Winnipeg, eight days later.

As well as those suffering physical injury, there were a number of employees, including a number who were not on shift that night, who suffered psychological trauma. Forty-three filed WCB claims for stress and twenty-eight lost time from work.

Investigations were conducted into the explosion by the Mines Inspection Branch, R.C.M.P. (Creighton detachment) and the Smelter/Powerhouse Joint Workplace Safety and Health Committee. There were also investigations conducted by technical experts retained by H.B.M.&S. and the Mines Inspection Branch. The following is the report of the Smelter / Powerhouse Joint Workplace Safety & Health Committee.

The following events occurred on August 7, 2000 and the early hours of August 8, 2000:

- The last slag had been tapped from the reverb furnace between 1:00 am and 2:00 am on August 7, 2000.
- Roaster feed hoppers were empty at 5:00 am on August 7, 2000.
- The last trip of calcine was hauled to the furnace at 6:10 am on August 7, 2000.
- The uptake burner (# 1 burner) was shut off at 12:30 am on August 7, 2000.
- The jog burner (# 4 burner) was shut off at 7:00 am on August 7, 2000.
- Turned reverb burners up at 7:30 am. # 2 to 3000 litres/hour, # 3 to 2600 liters/hour for a four hour period to smelt walls and heat slag. At 12:30 pm both burners were turned down to 2000 litres/hour until 5:30 pm. From 5:30 pm until 10:50 pm # 2 and # 3 burners operated at approximately 1700 litres/hour.
- At approximately 2:00 pm on August 7 the removal of floor plates and hopper covers began using the bobcat and helpers. At the end of dayshift there was only four or five hopper covers left to remove.
- Between 7:00 pm and 8:00 pm the remainder of calcine hopper covers were removed by the night shift bobcat operator.
- At 7:00 pm on August 7 a safety meeting had been conducted in the Smelter meeting room. Not everyone was in attendance due to the ongoing tapping of the furnace.
- Between 7:30 pm and 9:30 pm the north and south slag launders were removed from the east end of the furnace.
- Between 10:15 pm – 10:45 pm removal of wall bracing on the north side started. Lunch break occurred and at approximately 11:30 to 11:45 pm the work continued on removing wall bracing on both sides of the furnace and the burning of bolts off the drop pipes on the feed floor until 1:30 am.
- Converter slag launder was removed between 9:00 pm and 10:45 pm .
- Molten material continued to be tapped from the matte holes during the dayshift on August 7 2000 and in to nightshift.
- The final molten material from the furnace was tapped from the matte holes and the holes shut off at 10:45 pm on August 7 2000.
- At 10:50 pm # 2 burner was shut off and at 11:00 pm # 3 burner was shut off. 250 BROKK (larger of the two mechanized jackhammers) broke hole in north wall, 3 to 5 feet by 3 feet, at approximately 11:00 pm.
- Between 11:00pm and 11:10 pm reverb furnace preheater was shut down, along with the circulating fan, combustion fan, and the primary air fan.
- A fire hose was put in use on the converter slag launder area at 11:00 pm.
- Boiler ash removal, using the Bobcat, took place between 11:00 pm and midnight.
- Between 11:20 pm and 11:30 pm fire hoses were turned on for the washdown of the calcine floor and arch. At that time there were two fire

hoses operating on the calcine floor and one operating on the north feed slope.

- At approximately 11:20 pm a crack was noticed forming from the north west side running towards the matte as viewed from the north feed floor.
- Between 12:00 am and 12:15 am it was observed by a number of people that there was water inside of the furnace. It was stated to be anywhere from one inch to twelve inches deep.
- At 12:10 am the 988 loader began removing the dope pile from in front of the reverb furnace and continued to do so until the time of the explosion. At this time the west side access door to reverb was locked as per previously developed procedure for removal of converter plt dope.
- At 12:15 am two large cracks were observed from the north feed floor between the jog and dust section.
- Between 1:00 am and 1:15 am several workers saw various amounts of water inside the furnace. It was described as being anything from puddles to a swimming pool.
- From 1:00am to 1:30 am six or seven rows of brick were removed along the north side of the arch from the west end to the jog. Wall tiles on the north side were also knocked in as the brick was being removed.
- At approximately 1:00 am two additional hoses were added. One was laid out to the north feed floor and one laid out to the north calcine floor.
- At approximately 1:30 am a crack was noticed opening in the crust of the furnace bath as viewed from the front of the furnace where the converter slag launder enters the furnace.
- At 1:30 am water was observed covering as much of the furnace bottom as could be seen from a vantage point over the matte holes.
- Wash down continued until the time of the explosion.
- At some point between 1:40 am and 1:45 am a series of explosions, escalating in intensity, occurred inside of the reverb furnace.
- At 1:45 am the initial call requesting the fire department and ambulance was received at the main gate.

SLAG TAPPING

- Between 1:00 am and 2:00 am on August 7, 2000 the slag holes were shut off for the final time.
- The slag holes were shut off with mud and the mud was still in place after the explosion.

MATTE TAPPING

- From 2:00 am on August 7, 2000 until 10:45 pm on August 7, 2000 the molten material in the furnace was tapped out through the matte holes only .
- Matte tapping was interrupted on day shift for a three hour period due to the train being used for removing copper slag from the converter pit.
- Tapping from the west hole had to be interrupted at least once to repair a leaking launder.

- The tappers had been alternating from tapping one hole to tapping two holes throughout dayshift and in to nightshift.
- The slag train was parked outside the converter pit while electrical cables were strung for the Brokks.
- At 10:00 pm on August 07, 2000 the last overall bath level, as indicated by the measure from the measuring hole was 10 to 12 inches above the matte hole. After the explosion, as identified by elevations taken, the bath level in the furnace at this time was about one foot above the matte hole. NOTE: a bath exists below the matte holes (as per furnace bottom measures).
- At the time the holes were finally shut off the molten material was running slow, but still running out both holes, as indicated by a tapper.
- It was indicated that there was a gap between the top of the hole and the molten material flow. It was also indicated the molten material was smoking hot.
- The last pot of molten material was half full.
- At 10:40 pm to 10:45 pm the matte holes were shut off for the final time by plugging them with mud.

REVERB BURNERS

- Oxygen to the burners was shut off on Monday August 7, 2000 at 5:00 am.
- Oxygen lances were still in place in # 2 and # 3 burners after the explosion.
- Between 12:00 am and 12:30 am on August 8, 2000 the reverb operator attempted to remove the reverb burners but could not because the catwalk, at the front of the furnace, was taped off as cleaning of the slag launder area was in progress. # 2 and # 3 burner guns remained in position, with some steam on, until after the explosion.

PREHEATER

- Shut off fire on preheater between 11:00 pm and 11: 10 pm on August 7, 2000. Primary air fan, circulating fan, and combustion air fan were shut off at this time.
- Reverb operator took twenty to forty minutes to remove the preheater gun then went to remove reverb burners.
- Mechanics started removing doors between 12:00 am and 1:00 am on August 8, 2000.
- On August 8, 2000 at 12:50 am the preheater was completely shut off by a supervisor.

EAST END OF REVERB FURNACE

- The north and south slag launders were removed by 9:30 pm August 7, 2000. In an effort to save time the launders were dropped into the slag tunnel to be removed later by the loader.
- Pipefitters were working above and around the slag launders until the time of the explosion.

- Operations personnel were removing the slag launder supports, while working around the pipefitters.
- The boilers were being taken off line starting at 11:00 pm August 7, 2000.
- Powerhouse employees were working in the area of the boiler ash chambers locking the ash doors open at the time of the explosion.
- The 250 Brokk was moved to the east end of the furnace and parked in front of the north boiler ash doors between 1:00 am and 1:30 am August 8, 2000.
- The 150 Brokk was moved into place at the north west corner of the furnace to enlarge the hole started by the 250 Brokk.

WASHDOWN

- At the start of shutdown there was a procedure for the washdown in the procedures manual and marked as complete in the Reverb team minutes.
- While the furnace was still operating fire hoses were placed in the following locations for the start of washdown:
  - One hose located at the converter slag launder area and turned on at 11:00 pm.
  - One hose located on the catwalk on the calcine floor and turned on between 11:20 pm and 11:30 pm.
  - One hose located on the south east side of the calcine floor and turned on between 11:20 pm and 11:30 pm.
- Two groups were assigned to wash down the furnace switching off at one half hour intervals. Another group was assigned to wash off the slag launder area.
- At approximately 11:30 pm an employee was photographed spraying onto the front of the arch with a fire hose, from the north side of the slag launder.
- It was noted by several workers and supervisors that water was accumulating inside the furnace during the washdown, as early as 12:00 am, up until the time of the explosion.
- Between 12:30 am and 12:45 am some supervisors met in the Reverb supervisor's office and decided that more hoses were required to speed up the washdown.
- At approximately 1:00 am two additional hoses were installed:
  - One hose attached to the hydrant on the north west landing was run to the north side of the calcine floor.
  - One hose attached to the hydrant on the north wall was run up to the north feed floor.
- The second last group to wash down prior to the explosion were using:
  - One fire hose at the south/east corner of the calcine floor
  - One fire hose on the catwalk above the arch
  - One fire hose was being used on the slag launder area.
  - One, one inch hose was also being used in the converter slag launder area to wash down the beams and the arch.
  - Another one inch pipe, that had been disconnected from a water jacket was spraying water on to the arch.

- Just prior to the explosion, the last group to wash down were using:
  - One fire hose at the north/east corner of the calcine floor
  - One fire hose at the south/east corner of the calcine floor
  - One fire hose on the catwalk above the arch
  - On the converter slag launder landing there was one fire hose washing off the slag launder area.
  - One, one inch hose was also being used in the converter slag launder area to wash down the beams and the arch.
  - Another one inch pipe, that had been disconnected from a water jacket was spraying water on to the arch.
- A fifth fire hose was charged and laying on the north feed floor. It could not be ascertained if this fire hose had been in use or not.
- Two, one inch diameter water nipples, off the supply header, were spraying onto the arch or into the furnace after the explosion. It could not be determined when or how they got turned on.
- An undetermined amount of water was running down the outside of the slag cooling blocks at the east end of the reverb furnace prior to and after the explosion.

EXPLOSION

- At some point between 1:40 am and 1:45 am on August 8, 2000 there was a small pop followed by a series of explosions escalating in intensity inside the furnace.
- As the explosions happened some employees were thrown across and to the floor by the concussion. Several had their respirators, hard hats and glasses ripped off from the force of the blast.
- The concussion from every explosion threw more hot dust, steam, molten material and other debris into the air. There was intense heat in the area, a lack of visibility as well as confusion and disorientation which hampered their escape. One of the contractors was further hampered in his escape as he was tethered to the 150 Brokk machine by the wired remote control.
- The injured who made it to the west Reverb exit found it locked.
- Location of employees at the time of the explosion:
  - On the calcine track floor, two employees were on the catwalk above the arch and one on the north east side.
  - On the converter slag launder area, at the west end of the furnace, there were two employees, one on each side of where the converter slag launder had been.
  - On the north side of the main floor, of the reverb furnace, three HBM&S employees and two contractors were standing in the vicinity of the 150 Brokk, that was located on the east side of the oil control room.
  - At the east end of the furnace, four pipefitters were working, one on the main floor and three working on the landing above the slag holes.
  - At the east end of the furnace, three Powerhouse employees were in the area of the south boiler ash chamber.

- There were other employees who were not in the immediate area of the furnace at the time of the explosion.
- Powerhouse employees exited the area by way of the Reverb brick shed (Heine Boiler Room), through the Spill Gas Project area, to the Powerhouse.
- Three pipe fitters made their way to the reverb lunchroom. The fourth joined them soon after.
- Of the three HBM&S employees and the two contractors in the area of the 150 Brokk, the two contractors and one HBM&S employee exited by way of the west stairs through the elevator shaft gates (because the west reverb exit door was locked). The other two HBM&S employees (smelter supervision) met at the new sliding door, on the west wall (by the elevator). As visibility improved they assisted some of the injured in evacuating the area.
- Of the two employees on the converter slag launder area, one employee hung over a railing and dropped to the landing below. The other employee exited using the north west stairs from the feed floor. They exited down the west stairs and through the elevator shaft by climbing over the gates.
- The employee at the north east uptake, on the calcine floor, exited east and north through the fuming plant to the reverb lunchroom. From there he received assistance through the mechanic shop to the warehouse for first aid.
- The center catwalk, above the arch, had only one exit which was to the west end. The two employees were at the east end and had to run across the length of the catwalk above the exploding furnace to exit the catwalk. Escape route to the east was not an option because the floor plates were removed. They exited the area by using the stairs on the north/west corner of the reverb furnace down the west stairs and out through the elevator shaft gates.

EVENTS AFTER THE EXPLOSION

- First aid was administered to the injured, after they escaped the Reverb area, by other smelter employees. First aid was hindered by "Tye-wraps" on some of the zippers on the burn gel blanket bags.
- A sweep of the furnace and a head count were conducted after the explosion by smelter supervision.
- Some other contractors returned from their lunch trailer to the boiler and precipitator areas unaware of what had happened. Some were not notified for up to an hour.
- When the injured were accounted for, employees were instructed to evacuate to the warehouse. Some of the employees exited via the walkway along the north side of the furnace through the west reverb stretcher door, while others exited though the mechanics shop. At some time the main exit door was unlocked and some of the employees exited through it.
- Water from the hydrants and one inch lines at the front of the furnace were turned off immediately following the explosion.

- Ambulances began arriving to transport injured to the hospital.
- Fire department took control of the scene, extinguished resulting minor fires, made a sweep of the area and contacted supervisors to verify the head count. Two one inch water lines at the rear of the furnace were also shut off by the fire department.
- There was a sprinkler head in the old Maxon valve room on the north feed floor that was activated by the intense heat from the explosion. The sprinkler activated when the temperature in the area reached 165 degrees Fahrenheit or above. The other sprinkler heads in the same room that are set to activate at 212 Fahrenheit or above were not activated.
- The senior HBM&S staff , the full time Safety and Health Representative, and the Mines Inspector were notified. Not all Safety and Health Co-chairs were notified after the explosion.

PLANNING

The overhaul of the reverb furnace was tied in with the Gas Handling Project. The planning for the shutdown began eleven months before shutdown with the creation of a number of sub-teams reporting to a shutdown core team. The teams were made up of salaried and hourly employees. There were also some changes in smelter management responsibilities, to accommodate the planning process including the creation of the full-time shutdown planning coordinator.

Additional information for the development of the shutdown plan was acquired from previous shutdown documentation (i.e. GANTT charts, work assignments, past experience, personal notes). As well, new methods and technology were implemented.

This shutdown planning process generated a number of actions and documents. These included Gantt charts, the procedures manual, the work assignment sheet and the reverb shutdown task list.

INCIDENT FROM 1997 SHUTDOWN

The committee investigated the possible explosion during the 1997 shutdown. From interviews the committee believes there was an explosion inside the furnace, as a result of water being applied, but on a much smaller scale than the August 8 2000 explosion. It was never documented and so as with other shutdown issues from the past it is based solely on people's memory from over three years ago.

OBSERVATIONS

- Consistent with the methodology employed to plan previous shutdowns, the planning of the 2000 shutdown was based on information from previous shutdowns and then developed further through the planning process.
- This planning method did not identify the potential explosion hazard present in the washdown task. Given the number of shutdowns performed over the years washdown was seen as a routine procedure. Therefore, a risk assessment or critical task analysis was not performed.

- In the absence of the recognition of the potential hazard, the washdown task was seen as a routine clean-up task. As such, this influenced the planning mechanism that took past experience into account with respect to job assignments.
- Consistent with the recent shutdowns (ie 1990, 1994, and 1997) the shutdown plan showed fire off and washdown commencing as back-to-back activities.
- There was no provision in the 2000 plan for any cool down period for the furnace after fire off. This is consistent with documentation from previous shutdowns.
- Although there were practices in place, there were no written procedures for shutdown tasks for previous shutdowns. The partially complete shutdown procedures manual developed for the 2000 shutdown was the first attempt to do this.
- The written procedures for shutting the furnace down did not include:
    - Determination of when furnace is empty or when to cease tapping
    - Requirement to shut-off slag holes, if any;
    - Requirement to shut-off matte holes, if any.
- Concerns found with respect to the development of the 2000 shutdown procedures were:
    - Documentation from previous shutdowns lacked detail with respect to helping develop these procedures.
    - Better utilisation of employee involvement systems could have taken more advantage of the experience of the workforce. Also, more use could have been made of retirees in this regard.
- Concerns were found respecting the understanding and communication of the shutdown plan.
- The injuries received as a result of the explosion were mainly consistent with having been burns caused by steam.
- The mandatory protective equipment was being used by all those injured. The fire retardent coveralls (Nomex and Indura) offered little protection against steam burns.
- There was an event that occurred between the uptakes at the time of the explosion. The Mines Inspection Branch may have information regarding this event which has yet not been shared with this committee that may have been relevant to this report.
- Had there been reporting and documentation of the incident in the furnace during the 1997 shutdown, this potential hazard may have been identified in the planning stages of the 2000 shutdown.

- The Emergency Procedures manual does not adequately cover notification requirements after an incident.
- The Safe Job Procedure developed for removing dope from the north end of the converter pit did not recognise the need to maintain safe egress from the northwest corner of the reverb in the case of such an incident.
- The potential hazard of equipment operators being tethered to their equipment was not recognised in the case of such an incident.

CONCLUSIONS

The investigation has concluded that the most probable cause of the explosion on August 8, 2000, was water from the washdown accumulating in the furnace on top of the crust, prior to the explosion. The investigation has also concluded that at the time of the explosion, something triggered a reaction which allowed the water to react with molten material which existed in the furnace.

Other things considered were the possibilities of dust, hydrogen sulfides, hydrocarbons and oxygen as ignition, accelerants or contributing factors to the explosion. No evidence was found to support these as factors.

The resulting explosions and subsequent release of large amounts of steam, heat, and ejected material caused or contributed to the injuries to the employees and also led to the death of Steven Ewing.

From the investigation, it is believed that had the potential hazard associated with washdown been recognized or identified, certain steps should have been taken in an effort to address this hazard, which included:

- Other means of controlling and removing dust build up on the furnace and beams.
- The need for a cool down period prior to washdown commencing.
- The need to monitor and control water accumulation in the furnace from both the washdown and other sources.
- The impact of any changes in work practices and methodology including resourcing and task sequencing on the execution of the task, especially on the compression of historical timelines.

RECOMMENDATIONS

1. Shutdown Planning

1.1 Risk Assessments and Safe Job Procedures for shutdown should be c completed prior to the next shutdown.

- These procedures need to be developed and reviewed by the appropriate people with the proper cross section of skill and knowledge base.
- Adequate resources must be committed to developing and reviewing these procedures to ensure completion prior to the next shutdown.
- These procedures will be reviewed by the Joint Workplace Safety and Health Committee.
- Prior to the tasks being carried out at shutdown the job procedure must be reviewed with the supervisor and crew assigned to that task.
- Develop a feedback system which fully assesses shutdown activities with respect to how tasks were actually performed compared to the planned schedules and procedures so that this information can be used for future shutdown planning.
- Develop a system to address the control and impact of any changes to the planned sequence.
- The planning process should address all aspects of taking the furnace off-line as well as the shutdown itself.

1.2 During planning, consideration should be given to:

- Any cool down period required after tapping is finished and the fire is off.
- The impact of new work practices and technologies on the furnace shutdown.
- Investigating the use of more mechanisation for furnace demolition.
- Ceasing the practice of floor plate removal prior to fire-off.

2. Emergency Procedures

2.1 Reassess all access ways within the smelter:

- Investigate possible relocation and design of west reverb stairway and entrance/exit.
- Doors, which may be used for escape or to allow rescue, should not be locked or otherwise blocked to impede egress in event of emergency.
- All smelter external exit doors should open outwards.
- All exits should be clearly marked. Ie. with luminous paint or suitable markings.
- The locking hasp should be removed from the reverb access door.

2.2 The catwalk on top of the furnace, on the Calcine Floor, should have a second means of egress to the east.

2.3 Procedures for operation of heavy equipment in the smelter that may impact entrances and exits should be reviewed.

2.4 Wherever possible, remote control equipment in use at the smelter should be of a wireless design. If this is not possible, the operator should in no way be tethered to the equipment in a manner which may impede emergency egress.

2.5 Emergency procedures should be reviewed with respect to persons requiring notification in case of accidents and systems developed to ensure that all such notifications are carried out.

3. Non-shutdown operations

3.1 Risk Assessment should be done for non-routine jobs in the smelter prior to them being done. Where required Safe Job Procedures should be developed and reviewed prior to any work taking place. These procedures will accompany the work assignment where appropriate.

3.2 Risk assessment should be completed for all outstanding tasks within the Smelter and Safe Job Procedures developed where required and incorporated into the training manuals as appropriate.

4. Use of Water

4.1 No water will be used at shutdown for cleaning or cooling the furnace unless a full risk assessment and safe job procedures have been completed and reviewed by the Joint Safety & Health Committee.

4.2 The elimination, control and cleanup of dust buildup should be investigated. Options to be considered are:

- Engineered dust control systems
- Purchase of a vacuum truck
- Re-evaluate existing dust control systems and procedures

4.3 The use of water to assist with the slag launder clean up during normal operations should be discontinued.

4.4 Potential water hazards in hot metal areas should be reviewed and further control measures implemented where required. Procedures should be implemented to ensure that any occurrence of water in a hot metal area outside of the areas of controlled use should be reported as an incident and remedial action taken immediately.

4.5 A proper Risk Assessment and Safe Job Procedure should be developed for the containment of molten materials in case of breakouts. The use of water as a means of containment should cease.

5. Training

5.1 Training criteria for supervisors and workers should be reviewed for all positions in the Smelter based upon the outcomes of the risk assessment process.

5.2 Additional training to be provided to all Joint Workplace Safety and Health Committee members and Smelter supervision who are involved in reporting and investigating accidents.

6. Other

6.1 Request that Mines Inspection Branch confirm, from their investigation, that the event between the uptakes at the time of the explosion is not an ongoing potential hazard during any operation of the furnace.

Note: a significant number of these recommendations have been, or are already in the process of being, implemented.

2000/12/08

W. Fulford
Loss Control Coordinator

R. Bilitski
IAM 1848 S&H Co-Chair

L. Bryson
IBEW 1405 S&H Co-Chair

R. Ellingson
IUOE 828 S&H Co-Chair

K. Allen
USWA 7106 S&H Acting Co-chair

E. Nasselquist
IAM 1848 S&H Rep.

2000/12/08

S. Anderson
USWA 7106 S&H Rep.

A. Hair
Management S&H Co-Chair
General Supt, Smelter & Powerhouse

T. Lindsey
Union H&S Rep.