June 22, 2006

Mr. J. Davitt McAteer
P.O. Box 1050
Shepardstown, West Virginia 25443

Re: Sago Mine Disaster Public Hearing
Additional MSHA Information and Documents

Dear Mr. McAteer:

This is in response to additional information and document requests that were presented during the testimony of MSHA panels before the above proceeding. The responses are indicated below under each MSHA panel heading. Additional documents are included in the enclosed CDs from which printed copies may be obtained. With respect to requested carbon monoxide (CO) sample results taken during the rescue and recovery, the "pdf" file located in the enclosed CD and labeled "Main Return" lists the CO bottle samples taken during the recovery but does not list all the hand-held detector samples taken since such results are scattered throughout individual notes and logs that have not been completely reviewed by the Sago accident investigation team. All responses to questions are provided with the understanding that these responses are supplemented by any related testimony made by MSHA representatives at the public hearing and may be later distinguished, modified or clarified by ongoing and final investigation results.

In addition, copies of MSHA Command Center logs are not included at this time due to the extensive protected deliberative information and ongoing investigatory information that is contained throughout these records; however, copies of the mine accident investigation, rescue and recovery, and pre-accident enforcement public hearing presentations (PowerPoints) are included. These presentations, together with the public hearing transcript accounts, provide substantial detailed information about the rescue and recovery effort and the decisions that were made.

A. Questions and Responses by Panel 2 MSHA Members
Panel 2- MSHA and WV-MHST Activities Prior to January 2, 2006.

  MSHA District Manager Kevin Stricklin
  MSHA Ventilation Engineer Clete Stephan - seal questions

  1. Do regular inspectors check lightning arrestors?

Response: MSHA coal mine inspectors are trained to inspect all mine equipment and structures during a regular inspection. This would include a physical observation of the required lightning arrestors. MSHA also employs a number of inspectors who are electrical specialists. These
specialists often assist general inspectors when they encounter unusual problems with electrical equipment or systems. Electrical grounding sometimes presents complex issues where the expertise of electrical specialists can be particularly useful.

2. Do the MSHA District 3 approved ventilation plans require seals to be built inby the block line for some distance?

Response: Yes. The pages from Sago ventilation plan are attached. The reason for the 10 feet setback statement was to increase the resistance on any leakage paths around the seal perimeter through the block of coal. In other words, the purpose of this requirement was to keep the seal away from the corners where cracks are likely to form, due to the stress that could be a conduit for air from behind the seals to enter into the active workings. The attachment discusses the seal plan. In addition, if the integrity of a seal were compromised to the point that another seal needed to be installed, a 10 foot distance would allow the construction of an additional seal.

3. Is the 10 feet setback provision a national requirement?

Response: It is a standard recommendation in seal construction but it is not required in all plans, due to varying mine conditions. This recommendation would apply to all seal constructions whether they are concrete seals or alternative seal constructions such as Omega seals.

4. What are the Model numbers, Serial numbers and Expiration dates of the SCSRs that 12 miners from 2nd Left attempted to use after the explosion?

Response: Mr. Stricklin has no information to answer this question; however, the accident investigation team and MSHA Technical Support had obtained the information which is listed in the table below.

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Panel 2 - MSHA Documents Requested and Produced

1. Copy of the Ventilation Plan pertaining to the seals.
2. Copies of Electrical Non-Contributory Violations issued so far by the MSHA investigation team.

B. Questions and Responses by Panel 4 MSHA Members

Panel 4- MSHA and WV-MHST January Explosion and Mine Rescue

MSHA District Manager Kevin Stricklin
MSHA Ventilation Division Chief John Urosek

1. Who made the decision not to go to 57 cross-cut during the rescue and recovery effort? Why was this decision made?

Response: It was a joint decision of WV-MHST, MSHA and the operator. As Messrs. Stricklin and Urosek indicated in their public hearing testimony as well as Mr. Conaway of WV-MHST, it was a joint decision based on the fact that significant methane was sampled at the fan and concentrations of CO steadily increased to high levels as the day went on. This was a strong indication that a high risk existed for a secondary explosion.

As rescue teams advance after an explosion, the officials in charge must make sure that they do not bypass any condition in the mine that could jeopardize the health and safety of the rescuers with respect to a fire or the potential for another explosion. It is also important to accurately evaluate the mine environment and take appropriate precautions to protect both the rescue teams and the miners to be rescued.

The five company employees who entered the mine as far as the 57 cross-cut area recognized these dangers. They stated that they decided to withdraw from the area because of CO levels and the threat of another explosion. They also indicated that professional rescuers were necessary. Reportedly, there was little or no ventilation in the 57 cross-cut area and ventilation controls were damaged in the outby areas. The company officials also identified potential water problems associated with the power being de-energized. Water accumulations in air courses and entries could impede or block existing ventilation in the mine.
These conditions required a collective, organized and methodical exploration process to ensure the safety of the rescue teams and mitigate the need to conduct an airlock reentry process which would isolate the 2 Left section and previously sealed section and cause further delay in the rescue process. As noted above, there were high amounts of CO and unusual levels of methane at the mine fan which are indicators of a possible fire or another explosion. Under these circumstances, it is very difficult to determine the location and extent of any fire. It is unfortunate that conditions were not conducive to starting the rescue effort farther into the mine but all indications were that the conditions were not safe to do so for the rescuers and for the miners on 2 Left. As stated at the public hearing, the mine rescue teams courageously went beyond the limits of distance and communication to reach the 2 Left face area to find the miners and, as a result, one life was saved. The mine rescue team members did all they could under the circumstances. Given the severe conditions in the mine after the explosion, command center personnel took appropriate and prudent steps to move the mine rescue teams to the miners underground as soon as it was safe to do so.

2. Why did the surveyors not report to the mine by helicopter as originally planned? Reports were that they drove to the site.

Response: MSHA has no knowledge of the details concerning the surveyors' transportation. Those activities were coordinated by ICG officials.

3. Who made the decision not to dispatch seismic equipment to the mine and when was it made?

Response: Following MSHA's mine emergency procedures, Kevin Stricklin, MSHA's District Manager in charge at the site of the rescue and recovery operation, requested all of MSHA's mine rescue equipment that was appropriate for the Sago Mine effort. Mr. Stricklin was in regular contact with MSHA's headquarters Command Center in Arlington, VA and senior officials there, including the Director of Technical Assistance, the Acting Deputy Assistant Secretary and the Acting Assistant Secretary concurred in the choice of equipment. Mr. Stricklin did not request that the seismic equipment be moved from its Pennsylvania location due to time constraints and operational limitations of that equipment. MSHA's experience has shown application of the seismic technology is very limited generally and specifically with regard to the Sago operation:

- It would not have enhanced the rescue effort and may have in fact delayed rescue if it had been deployed.
- In more than 20 years, MSHA's large seismic equipment has been deployed only twice and on each occasion it did not help locate trapped miners.
- Deployment of the seismic system to Sago would have taken more than 15 hours to transport and set up and may have diverted rescue resources from other activities.
- The system requires precise survey coordinates underground and on the surface and neither were available.
- Because the system may have utility in very specific, limited situations, it is maintained for potential use.
Moreover, deployment of the seismic system would likely have delayed the rescue of Randal McCloy and his life may not have been saved. If the seismic system had been deployed and set up, the set up could not have occurred until approximately midnight on January 2, 2006. In addition, if the system were deployed, the underground mine rescue teams would have been either stopped or withdrawn from their underground progress. Present information indicates that there would not have been any sufficient sounds to detect at that time. Therefore, precious time would have been lost for drilling the borehole and advancing the rescue teams.

Panel 4 - MSHA Document Requested and Produced

1. Would MSHA provide all of the gas readings taken at the return portals, including the documented handheld readings, infrared readings and gas chromatograph readings and make those a part of the record?

Response: This information is provided in the enclosed CDs.

C. Questions and Responses by Panel 6 MSHA Members

Panel 6 - MSHA and WV-MHST Investigation of Sago Mine Explosion

MSHA Chief Investigator Richard Gates

MSHA Ventilation Division Chief John Urosek

In addition to the above panel members, MSHA Mine Emergency Response Coordinator Jeffery Kravitz assisted in responding to the following SCSR questions and MSHA Ventilation Engineer Clete Stephan assisted in responding to the following seal questions.

1. What are the number of SCSRs that have been tested since the SAGO Mine Explosion and after Randal McCloy's letter? How many miners interviewed indicated problems with the SCSRs? How many SCSRs have been field tested?

Response: To date 24 SCSRs, including 13 found on the 2 Left Section have been tested. Additional SCSRs may be examined and evaluated as our investigation and tests continue. Preliminary tests indicated that the SCSRs had been activated and functioned appropriately. During the interviews, a miner on the 1st Left crew stated he had problems with the mouthpiece on the SCSR because he had false teeth and stated some difficulty with removing the tab on the seal band on the top of the SCSR but also stated that the SCSR activated and he could breathe through the device. (Accident Investigation Interview Transcript of Joseph Ryan, pages 54-63). Another 1st Left miner, Arnett Roger Perry, stated that he had trouble breathing at first when the SCSR bag did not inflate; however, when he blew into the bag the SCSR did activate and function. Such action is in accordance with standard steps to take when the pull cord does not initially activate the system. (Accident Investigation Transcript for Roger Perry, pages 29-30). After Randal McCloy’s letter to the families was publicized, MSHA and the state agreed on a joint action plan for ensuring proper SCSR training and functioning. MSHA and the state are monitoring coal mine operator testing of SCSR functionality as operators perform in-mine testing to determine locations of caches. MSHA is also conducting this monitoring nationally.
This monitoring will also include efforts to ensure that miners are trained and drilled in the proper procedures for donning and exchanging SCSRs in light of the new Emergency Temporary Standard provisions on the storing and use of SCSRs underground.

2. Will the pump in the sealed area of the Sago Mine be recovered and examined?  
Response: Effort is ongoing to recover and examine the pump located in the sealed area.

3. Explain the allegation that a Clete Stephan letter or memorandum indicates that Omega seals should be built in dry area.

Response: Any statement by Mr. Stephan referring to not constructing seals in wet areas applies to Micron 550 seals not to Omega seals. Omega seals can be constructed in wet or damp areas provided they are constructed properly, including use of "BLOC BOND" mortar mixed according to manufacture instructions and applied between all joints. However, seals, including Omega seals, should not be constructed in standing water or in puddles.

4. What is the pounds per square inch (psi) compressive strength comparison between concrete blocks and Omega seal blocks?

Response: According to the ASTM standards concrete blocks have a compressive strength of about 1800-2000 psi whereas Omega blocks, according to laboratory tests, have a 70-100 psi compressive strength.

5. Does failure to properly ground enhance the possibility of lightning coming into the mine on telephone lines, rails, or belt structure etc?

Response: It is difficult to answer this question without reference to specific facts. However, as a general matter, depending on how these structures are connected, underground conductive materials such as telephone lines, rails or belt structures could provide a viable conduit into the mine.

6. With respect to the two indicators that we have on our rescuers, can they change from blue to pink and back to blue again?

Response: According to the Manufacturer, the indicators can change from blue to pink if moisture enters into the system and then change back to blue as the moisture content dissipates. MSHA requires these units to be checked daily for these indications and they must be removed from service when the indicators are not blue.

7. Does your finding with regard to the failure to properly ground, or anything else, lead you to believe that those two might be connected, that that grounding would have something to do with the transmission of that lightning energy up to the sealed area?
Response: As stated at the public hearing, the MSHA accident investigation team is looking into all potential explanations relating to the cause of the Sago explosion, including the transmission of lightning into the mine via equipment and other metal conduits or systems. Grounding of such systems or equipment may or may not be a factor depending on further evaluations and examinations to be made. Copies of non-contributory electrical violations, including some grounding violations, are produced in this response; however, as previously stated at the hearing, MSHA's investigation is ongoing and any conclusions or deductions about these issues would be premature at this time.

Panel 6 - MSHA Documents Requested and Produced

1. Copies of examination Records, including preshift (fireboss) & onshift records are included.
2. Electrical Grounding Records - Electrical Examination Records are included as well as copies of all non-contributory electrical violations issued. There are no electrical grounding records that exist.
3. Preshift examination records of Fred Jamison and Terry Helms - were submitted at the public hearing.
4. Reports of SCSR tests - these tests are not completed but results will be included in MSHA's final report.
5. Conductivity Test Results - will be provided by the state (WV-MHST).
6. Notes of Terry Helms - MSHA has not obtained any notes from Terry Helms and we are not aware of any notes that were found on or near his body.
7. Notes of Fred Jamison - Jamison claims in his sworn statements that he lost his notes except for the written examination results indicated in the exam books. No other notes to or from Jon Boni have been found.
8. Copies of MSHA's power point presentations for this panel and previous panels are included.
9. Copy of CAD Map regarding bottom mining - a copy is included together with a "pdf" version and with the understanding that a CAD map file can only be opened by a computer system that includes the appropriate CAD software.
10. Copies of AMS computer read-outs are included.
The above responses to questions are based on the best information available to MSHA at the time of this letter. These responses are submitted during MSHA's continued investigation of the Sago Mine accident and may be subject to change and clarification as further evaluation and examination of these matters occur. MSHA's final conclusions as to the cause of the mine explosion and any violations of mandatory health and safety standards will be stated in MSHA's final mine accident investigation report. Enforcement actions will be taken as appropriate.

Sincerely,

James B. Crawford
Senior Attorney-Advisor to
MSHA's Mine Accident Investigation Team

cc: Sago families' representatives
    Administrative files