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UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

COAL MINE SAFETY AND HEALTH

REPORT OF INVESTIGATION

Surface Area of Underground Coal Mine

Fatal Fall of Person Accident
December 9, 2005

Bodell Construction Company (YUD)
Salt Lake City, Utah

a**t**

Bridger Underground Coal Mine
Pacific Minerals
Point of Rocks, Sweetwater County, Wyoming
ID No. 48-01646

Accident Investigators

Phillip R. Gibson, Jr.
Coal Mine Safety and Health Inspector

Donald E. Durrant
Coal Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
District 9
Denver Federal Center
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Allyn C. Davis, District Manager

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FATAL FALL OF PERSON ACCIDENT
BRIDGER UNDERGROUND COAL MINE (ID NO. 48-01646)
PACIFIC MINERALS
POINT OF ROCKS, SWEETWATER COUNTY, WYOMING
DECEMBER 9, 2005
DIED: DECEMBER 26, 2005

PICTURE OF ACCIDENT SITE

OVERVIEW

On Friday, December 9, 2005, Henry Oneida, a 49-year old ironworker, was injured when he fell about 25 feet into a surface coal storage hopper while performing construction work at Truck Dump Station #2. Oneida was in an area that required a safety harness and line, but was not using any fall protection when the accident occurred. Oneida had five days of coal mining experience and twenty-five years experience as an ironworker. Oneida worked for Bodell Construction Company, Independent Contractor ID No. YUD. Oneida died from his injuries on December 26, 2005, after being removed from life support systems.

The direct cause of the fatal accident was Oneida not wearing fall protection while performing work over the coal storage hopper. A contributing cause was the failure of tack welds used to hold a steel I-beam in place. Also, high levels of methamphetamines were present in Oneida's blood and may have contributed to the accident. The accident resulted from failure to comply with existing policies and procedures for fall protection, steel erection, and drug usage.

GENERAL INFORMATION

The Bridger Underground Coal Mine is a new mine operated by Pacific Minerals and is located at Point of Rocks, Sweetwater County, Wyoming. Pacific Minerals is a partnership between Pacific Minerals, Inc., Salt Lake City, Utah, and Idaho Energy Resources, Boise, Idaho. The principal officers for Pacific Minerals were Frank J. Zmerzlikar, Mine Manager, and Gregory P. Mele, Manager of Safety and Health.

At the time of the accident, coal was produced from one underground continuous miner development section, located in the D41 coal seam, which ranged from 9 to 13 feet thick. The mine employed 52 underground miners and 3 surface workers. The mine worked Monday through Friday, with two 8-hour production shifts and one maintenance shift per day.

Bodell Construction Company (Bodell), based in Salt Lake City, Utah, was contracted by Pacific Minerals to design and construct three lengths of an overland belt conveyor system and four transfer towers from the Bridger Underground Coal Mine portals to the existing Truck Dump Station #2. This truck dump station was originally used by surface coal haul trucks from the Jim Bridger Mine, a surface coal mine operated by Bridger Coal Company, and was being modified to receive coal from the new overland conveyor belt system.

The principal officers for Bodell were Jeff Hopkins, Project Superintendent, and Bobby Davis, Foreman. On the day of the accident, Bodell had 21 persons working on the total project, but only 5 at the truck dump station.

Prior to the accident, the last regular safety and health inspection conducted by the Mine Safety and Health Administration (MSHA) was completed on August 12, 2005. The non-fatal days lost (NFDL) injury incidence rate for the Bridger Underground Coal Mine for the previous quarter was 0.00 compared to the National NFDL rate of 5.56. Bodell's NFDL incidence rate was 0.00 compared to a National contractor coal NFDL incidence rate for surface areas of underground mines of 1.31.

DESCRIPTION OF ACCIDENT

On Friday, December 9, 2005, Bodell's work shift started at 7:00 a.m. Normal construction activities commenced, following a toolbox meeting in which the use of personal protective equipment and tying off 100% of the time when working in elevated areas was discussed.

Henry Oneida, victim, and James Dunford, both journeymen ironworkers/welders, were assigned the task of installing two steel covers, each 14- by 14-feet in size, over the east half of the top of the coal storage hopper at Truck Dump Station No. 2. The cover for the other half of the hopper was not yet installed and that side remained open at the time. They were assisted by Rene Duarte, crane operator, and Steven Duncan and Alberto Mejia, laborers. The work was supervised by Bobby Davis, foreman, who traveled between the various Bodell work sites at the mine.

After initial preparatory work, a crane was used to place the first steel cover over the hopper. It was supported by the hopper sides and a steel I-beam, which spanned the center of the hopper and was tack welded at both ends to the hopper. The cover was not welded in place, but sat loosely on the hopper and I-beam. The second steel cover was positioned over the hopper but still remained attached to the crane. The covers were cradled along the top of the I-beam by a prefabricated angled steel framework referred to as the "white" beam, which was held to the I-beam by tack welded angle iron clips.

When the second cover did not sit on the white beam properly, Oneida and Dunford discussed what needed to be done to adjust the supporting framework to accommodate the cover. Oneida said that the steel cover needed to drop an inch into place and the white beam needed to move about two inches. Oneida grabbed a steel bar and pried one angle iron clip loose that held the white beam. This allowed the cover to drop in place and the white beam to move approximately two inches. Oneida was still not satisfied with the alignment and decided to go inside the handrail barrier at the hopper opening and into the hopper to make adjustments.

At approximately 3:45 p.m., without wearing fall protection, Oneida climbed out on the I-beam and cover and pried again with the steel bar. Dunford and Duncan were on the adjacent platform. As Oneida pried with the steel bar, the tack welds on the far end of the I-beam broke, allowing it to shift and the white beam to topple over. This caused Oneida to fall into the hopper. Dunford, who was on the other side of the handrail barrier, reached for Oneida, but was unable to catch him. Oneida fell approximately 25 feet to a lower level inside the hopper and struck his head against the hopper wall. The first steel cover fell into the east side of the hopper and did not hit Oneida. The second steel cover dropped approximately 1.5 feet, but remained attached to the crane hoist rope.

Dunford immediately went for help, traveling in a welding truck to where he met and notified the Bodell office clerk of the accident. Duarte, Mejia, and Duncan stayed in the area to try and assist Oneida. Dunford drove to the employee parking lot, parked the welding truck and left the mine property in his personal vehicle.

Emergency Medical Technician's from the mine were summoned and arrived to assist Oneida. Oneida was removed in a basket stretcher from the bottom of the coal storage hopper using a second crane obtained from the mine. He was placed in a waiting ambulance, treated by paramedics, and taken to Memorial Hospital of Sweetwater County in Rock Springs, Wyoming. From there he was airlifted to the University of Utah Hospital in Salt Lake City, Utah. Oneida remained in the hospital from the day of the accident until he succumbed as a result of his injuries. He died at 4:57 p.m., December 26, 2005, after life support systems were removed. The Certificate of Death indicated the direct cause of death was cardio respiratory arrest due to traumatic brain injury.

INVESTIGATION OF THE ACCIDENT

Danny Frey, MSHA Supervisory Coal Mine Safety and Health Inspector at Craig, Colorado, was notified of the accident by a telephone call from Gregory Mele, Manager of Safety and Health, Bridger Underground Coal Mine, at approximately 5:50 p.m., December 9, 2005.

Inspector Phillip Gibson, Jr., an MSHA accident investigator, traveled to the mine on December 10, 2005, and conducted an inspection of the accident site. Witnesses were not at the mine on the first day of the investigation but written statements were obtained from them on December 14, 2005. Interviews were conducted and company records relevant to the accident were obtained on December 14, 2005. MSHA conducted the investigation with the assistance of mine and Bodell management and employees, and officials from the State of Wyoming Division of Mine Inspections and Safety.

DISCUSSION

Hopper Details:

The hopper at Truck Dump Station #2 was approximately 28- by 28-feet square at the top. A steel I-beam was installed across the middle of the hopper dividing the top into two 14- by 28-foot openings. It was tack welded on each end to the hopper walls with angle iron clips. The I-beam was installed to support two steel covers, each 14- by 14-feet in size, which were to be installed on the east side of the hopper and one 14- by 28-foot cover with a hole in it to accommodate the overhead chute from the dump station. The smaller covers each weighed approximately 7,200 pounds. The area where the large cover went remained open while the smaller covers were installed.

The original plan was to set the I-beam in place, leaving it loose, then lift one cover into position and mark the proper location of the I-beam on one end. Then move the cover to the other end and mark the location of the I-beam on that end. Then remove the cover and weld the I-beam in place. Thus, the covers could be installed without the potential for a tack weld to break. A hand-drawn construction drawing stated "Location of grizzly support beam. Leave beam loose for upper cover fit up. Weld solid after fit-up."

A prefabricated angled steel framework, referred to as the "white" beam, was placed on the top of the I-beam to receive the steel covers and hold them in place. This white beam was welded to

the I-beam with clips to hold it in place. During the accident, this white beam flipped off the I-beam and came to rest beside the I-beam, also spanning the top of the hopper.

Fall Protection:

Witnesses stated that Oneida had used his fall protection earlier in the day when exposed to falling hazards, but did not wear it when the accident occurred. An exception to this occurred when Duncan was cutting out a piece of the hopper to accommodate the first steel cover. Oneida came and helped him and, according to Duncan, Oneida was hanging off the edge, not tied off, and Duncan told him to be careful, that he needed to be tied off. Statements indicate that Oneida removed his safety harness when he went to the trailer for more tools at approximately 2:45 p.m. Statements indicated that Dunford and Duncan used fall protection during the day when it was necessary.

Safety meetings were held at the beginning of each shift. The daily work assignments and safety aspects of the work were discussed. A written record was kept of these meetings and the attendants were required to sign the sheets. The records for December 6, 7, and 9, 2005, indicate that the crews were advised to wear their PPE (personal protective equipment) and to tie off 100% when working in elevated areas. Oneida's signature was present on the December 6 and 9, 2005, sheets.

Bodell had a written, comprehensive "Fall Protection Plan" for the Bridger Coal overland conveyor construction project. The plan required the following, "All personnel will be required to wear approved fall protection equipment when working more than 6 feet above the next lower level." The plan required managers and supervisors to enforce the plan to ensure 100% compliance by all personnel.

Examinations:

Examinations of the truck dump construction site were not required to be recorded because it is the surface area of an underground coal mine. The foreman did make examinations throughout the shift but was not at the site when the accident occurred. The weather was sunny with the temperature in the low 20's(^{o}F), and a 10 mph wind.

Training and Experience:

Oneida had a total of 5 days of coal mining experience, all at this mine. He was a journeyman ironworker/welder for about 25 years and had received new miner training in accordance with 30 CFR 48.25 on August 3, 2005. Oneida had received hazard training for this particular mine on December 5, 2005. Oneida had worked on and off for Bodell for the past 5 years and had just returned on December 5, 2005, to work on the Bridger overland conveyor project. Oneida, as an experienced journeyman ironworker, functioned as a leadman on the crew and directed the work being done.

Medical Information:

An autopsy was not performed, but blood tests were obtained at Memorial Hospital of Sweetwater County where Oneida was first taken. These were analyzed at ARUP Laboratories, Salt Lake City, Utah. Results were positive for methamphetamine and amphetamine. Alcohol results were negative. The report from the Office of the Sweetwater County Coroner indicated that Oneida's level of methamphetamines of 27440 ng/mL "would definitely be in the lethal range." Bodell has a written "Illegal Drugs/Controlled Substances" policy which includes a drug screening program and a pre-employment drug test. Oneida's pre-employment drug test was negative for all drugs tested, including methamphetamines and amphetamines.

ROOT CAUSE ANALYSIS

An analysis was conducted to identify the most basic causes of the accident that were correctable through reasonable management controls. The following root causes were identified:

1. Root Cause: Bodell management did not properly enforce their Fall Protection Plan, which enabled Oneida to work at the top of the hopper at Truck Dump Station No. 2 without a safety harness and line where he fell and received fatal injuries.

   Corrective Action: Bodell management should strictly enforce their Fall Protection Plan and ensure that persons do not work in areas where there is a danger of falling without using fall protection equipment. Co-workers should work together to insist that fall protection equipment is worn where there is a danger of falling. Closer supervision is needed to ensure that fall protection equipment is used when needed.

2. Root Cause: Bodell management did not ensure that the loose beam fit-up procedures for installing the I- and white beams were followed. Failure of the tack welds on the south end of the I-beam allowed the beam to shift and the white beam to topple causing Oneida to fall.

   Corrective Action: More substantial welds could have been made or the procedures outlined on the hand-written construction drawing for a loose beam fit-up should have been followed.

3. Root Cause: Bodell's drug testing policy failed to detect Oneida's use of methamphetamines. The Coroner's finding that Oneida's level of methamphetamines "would definitely be in the lethal range" indicated that use of drugs may have been a contributing factor.

   Corrective Action: A strict application of the company's drug awareness program and drug testing should be implemented. Training for supervisors should be provided such that signs and symptoms of substance abuse can be identified and handled appropriately.

CONCLUSION

The direct cause of the fatal accident was Oneida not wearing fall protection while performing work over the coal storage hopper. A contributing cause was the failure of tack welds used to hold a steel I-beam in place. Also, high levels of methamphetamines were present in Oneida's blood and may have contributed to the accident. The accident resulted from failure to comply with existing policies and procedures for fall protection, steel erection, and drug usage.

Approved by:

_____ _____

Allyn C. Davis Date
District Manager

ENFORCEMENT ACTIONS

Citation No. 7620653 was issued to Bodell Construction Company under the provision of Section 104(a) of the Mine Act for a violation of 77.1710(g):

> On December 9, 2005, at approximately 3:45 p.m., an employee was not wearing a safety belt and line where there a danger of fall during construction activities at truck dump station coal facility. The employee fell about 25 feet and received traumatic head injuries. The employee died seventeen days after being injured.

APPENDIX A

List of Persons Participating in the Investigation

PACIFIC MINERALS

Frank J. Zmerzlikar ..... Mine manager
Gregory P. Mele ..... Manager of Safety and Health

BRIDGER COAL COMPANY

Paul Gust ..... Safety Manager
Steve Gravley ..... Safety Coordinator (Underground)

INTERWEST MINING COMPANY

Rick Bordeaux ..... Conveyor Project Manager

BODELL CONSTRUCTION COMPANY

William Simmons ..... Project Manager
Ernest T. Glezos ..... Safety Director
Jeff Hopkins ..... Project Superintendent
Bobby Davis ..... Foreman
Rene Duarte ..... Crane Operator
Steven Duncan ..... Laborer
Alberto Mejia ..... Laborer

STATE OF WYOMING DIVISION OF MINE INSPECTIONS AND SAFETY

Donald G. Stauffenberg ..... State Inspector of Mines
Michael A. McCann ..... Deputy Inspector

MINE SAFETY AND HEALTH ADMINISTRATION

Phillip R. Gibson, Jr. ..... Coal Mine Safety and Health Inspector
Donald E. Durrant ..... Coal Mine Safety and Health Inspector

APPENDIX B

FATAL FALL OF PERSON ACCIDENT
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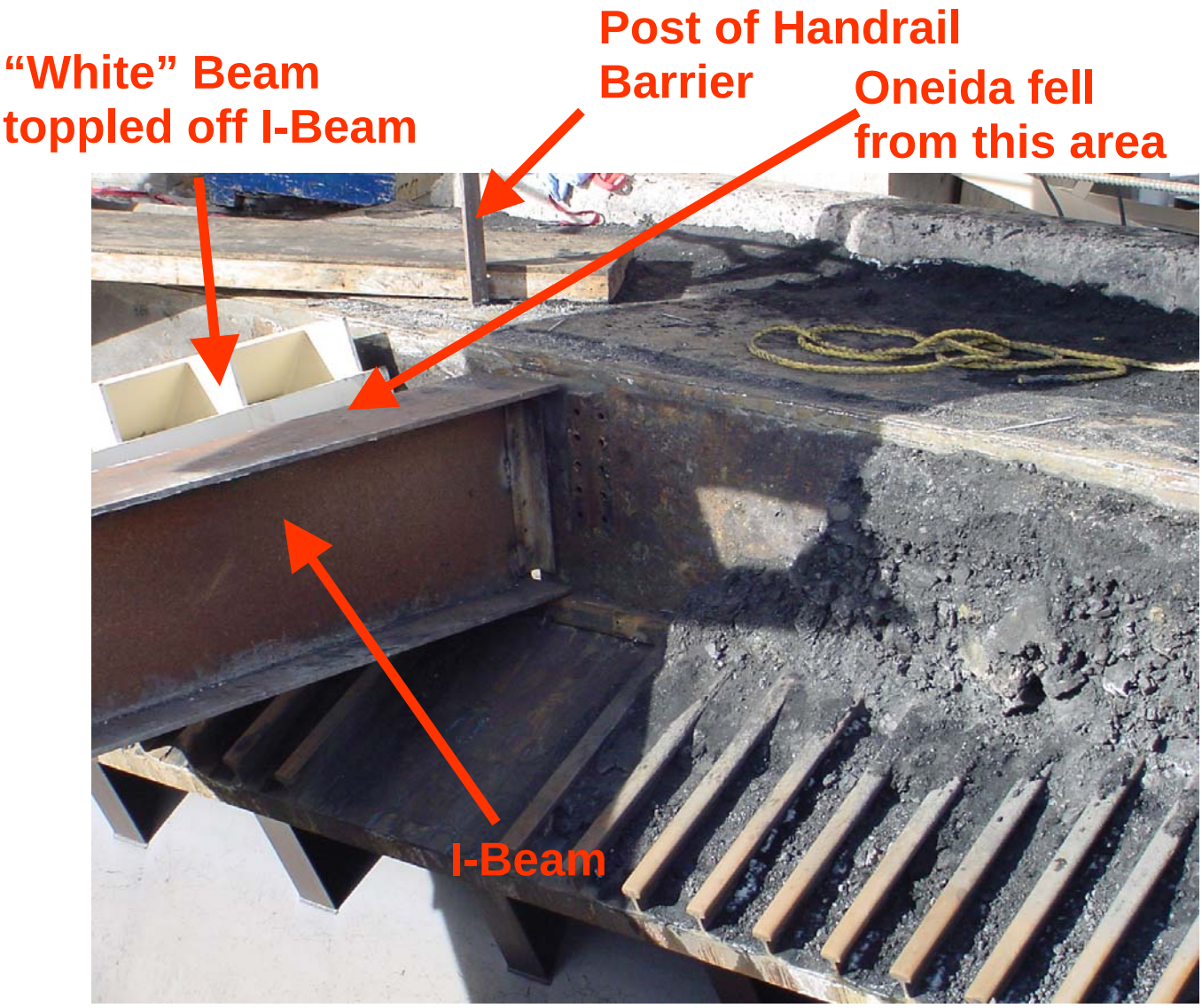
PICTURE OF ACCIDENT SITE AT TOP OF HOPPER



APPENDIX C

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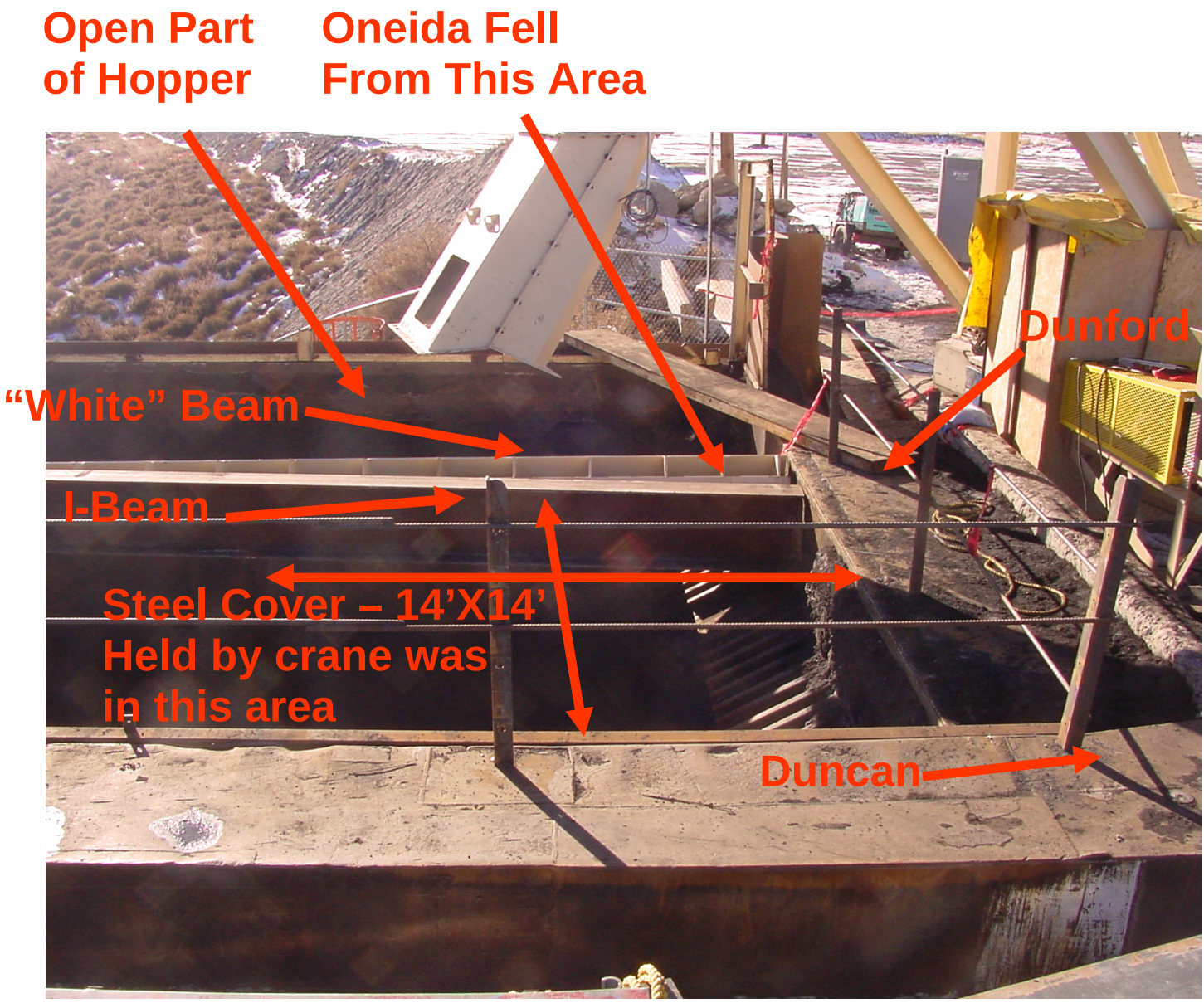
PICTURE OF ACCIDENT SITE – TOP OF HOPPER



APPENDIX D

FATAL FALL OF PERSON ACCIDENT
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PICTURE OF FAR END OF HOPPER/I-BEAM SHOWING 1ST STEEL COVER IN HOPPER