

Peabody Releases Initial Learnings From North Goonyella Incident

ST. LOUIS, March 27, 2019 /PRNewswire/ -- Peabody (NYSE: BTU) today released initial learnings from the North Goonyella mine fire that began in the third quarter of 2018. Learnings are based on the company's comprehensive review of the events surrounding the incident, which included the mine general manager's required investigation report prepared in accordance with Section 201 of the Queensland Coal Mining Safety and Health Act of 1999.

"When the serious incident at North Goonyella occurred, Peabody committed to sharing learnings for the benefit of our operations, our stakeholders and others in the industry," said Peabody President and Chief Executive Officer Glenn Kellow. "We believe that the beginning of the planned reventilation and re-entry activities warrant a sharing of our initial learnings at this point. We are taking multiple actions to integrate these learnings into our practices at North Goonyella and our other operations, where appropriate. The goal here is clear, to reduce the risk of such an event reoccurring at North Goonyella or any of our other mines in the future."

In early September, high gas levels caused the evacuation of personnel at North Goonyella during a planned longwall move from the 9 North panel to the 10 North panel. Subsequently, elevated carbon monoxide detected from within the mine indicated oxidation of coal, which can occur when coal is exposed to oxygen for an extended time period. Over a number of weeks, the company worked together with industry experts, and in consultation with the Queensland Mines Inspectorate (QMI), to take extensive steps to treat the oxidation from the mine surface. Actions were ultimately unsuccessful, and a fire occurred in late September.

The company's review of the incident concluded that areas of the mine demonstrated both elevated methane levels and elevated carbon monoxide levels following completion of coal production in the 9 North panel. During the longwall move sequence, a change in gas management focus to reduce elevated methane levels in the 9 North panel, including changes to the mine's ventilation system to increase airflow, inadvertently intensified the oxidation of coal that was likely causing elevated carbon monoxide levels.

Despite sustained efforts to manage the oxidation from the mine surface, including use of nitrogen to create an inert environment within the 9 North panel goaf (the mined-out area in the panel), the oxidation accelerated into a spontaneous combustion event that eventually resulted in the fire.

Safety remains Peabody's number-one priority and its first value. As a result of the actions taken to evacuate personnel in advance of the fire and other controls in place, the incident did not result in injury to any person. Throughout the incident Peabody's incident management team worked alongside the QMI and industry experts to ensure it utilized the best people and resources. Peabody continues to cooperate fully with the QMI as it undertakes its own independent investigation into the incident.

President – Australian Operations George Schuller said, "While this was a highly unusual combination of events, Peabody is making changes in systems, processes and training, where warranted, to put into place the improvements needed to successfully move forward from this incident. For example, we have already begun installing remote control ventilation systems at mine entrances."

It is the company's intent that longwall production at North Goonyella will not recommence until all necessary modifications are undertaken. Peabody's base case that targets limited continuous-miner volumes in 2019 with longwall production beginning to ramp up in early 2020 remains unchanged with approximately 2 million tons of sales from North Goonyella in 2020. Peabody continues to progress the execution of the multi-phased reventilation and re-entry of the mine in consultation with the QMI.

"I want to thank Peabody employees, the union, customers, neighboring mines, the community of Moranbah, the Inspectorate and countless others who have helped out during this challenging time," said Schuller. "We will be contacting other coal companies and industry bodies to further share learnings in coming months to strengthen the body of knowledge around underground mine ventilation and fire prevention."

Peabody (NYSE: BTU) is the leading global pure-play coal company and a member of the Fortune 500, serving

power and steel customers in more than 25 countries on six continents. The company offers significant scale, high-quality assets, and diversity in geography and products. Peabody is guided by seven core values: safety, customer focus, leadership, people, excellence, integrity and sustainability. For further information, visit PeabodyEnergy.com.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the securities laws. Forward-looking statements can be identified by the fact that they do not relate strictly to historical or current facts. They often include words or variation of words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates," "projects," "forecasts," "targets," "would," "will," "should," "goal," "could" or "may" or other similar expressions. Forward-looking statements provide management's current expectations or predictions of future conditions, events or results. All statements that address operating performance, events or developments that we expect or anticipate will occur in the future are forward-looking statements. They may include estimates of revenues, income, earnings per share, cost savings, capital expenditures, dividends, share repurchases, liquidity, capital structure, market share, industry volume, or other financial items, descriptions of management's plans or objectives for future operations, or descriptions of assumptions underlying any of the above. All forward-looking statements speak only as of the date they are made and reflect the company's good faith beliefs, assumptions and expectations, but they are not guarantees of future performance or events. Furthermore, the company disclaims any obligation to publicly update or revise any forward-looking statement, except as required by law. By their nature, forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those suggested by the forward-looking statements. Factors that might cause such differences include, but are not limited to, a variety of economic, competitive and regulatory factors, many of which are beyond the company's control, that are described in our Annual Report on Form 10-K for the fiscal year ended Dec. 31, 2018, as well as additional factors we may describe from time to time in other filings with the SEC. You may get such filings for free at our website at www.peabodyenergy.com. You should understand that it is not possible to predict or identify all such factors and, consequently, you should not consider any such list to be a complete set of all potential risks or uncertainties.

Discussion of Key Initial Learnings

As a result of Peabody's comprehensive review, the company has developed initial learnings and steps to improve the longwall move process and other mining activities.

- A) Peabody will review ventilation controls and design used during the longwall "take-off" process to minimize the amount of air that enters the longwall panel goaf and interacts with exposed coal remaining within the goaf.** Ventilation controls that were put into place in advance of the longwall take-off process may have permitted higher-than-expected volumes of ventilation air to enter the goaf during the longwall take-off process, resulting in oxidation. Gas management and ventilation changes were made in and around the 9 North panel tailgate area in response to elevated levels of methane, which inadvertently intensified the oxidation.
- B) Evaluate decision-making processes to address the challenges of remotely managing an underground incident solely from the surface, which can lead to unclear or ambiguous results.** For instance, as the incident approached late September and treatment of the oxidation event escalated, including injection of nitrogen from the mine surface into the 9 North panel goaf, fluctuating gas readings led North Goonyella mine personnel and expert third-parties to believe that the treatment plan was likely working due to a purging of gases from the goaf.
- C) Peabody also believes that the system used to monitor and analyze available mine gas data can be improved and better coordinated to identify early stages of oxidation events.** Additional training to the appropriate mine personnel will be implemented to recognize fire gas indicators, gas management and spontaneous combustion, and provide an understanding of a mine's ventilation history, with focus on identifying ventilation trends and key indicators of oxidation and developing heating for longwall mines.
- D) Peabody will modify the longwall removal planning process to reduce the number of days to complete the longwall take-off process to allow for earlier commencement of final sealing, incorporating additional contingency planning in the event the target cannot be achieved.** The amount of time the North Goonyella mine's 9 North panel was idle increased the propensity for oxidation to occur in the longwall panel goaf. Peabody will consider additional contingency measures, including installation of pre-drilled holes at the appropriate locations immediately behind the longwall chock line to allow oxygen inhibitors to be injected when longwall advance stops to mitigate against oxidation.

- E) Peabody will improve the Sealing Management Plan to provide greater clarity around the required steps for sealing the longwall panel (particularly in relation to how these steps interact and relate to the longwall move and re-installation plan).** The improved plan will provide for the allocation of resources to ensure the Sealing Management Plan is followed as described. Peabody will also provide additional training for underground personnel prior to sealing operations commencing.
- F) Peabody will hone its system for the management of Trigger Actions Response Plans (TARPs) to provide clearly defined trigger points, clear explanations of actions to be taken if trigger levels are reached, and improved methods, training and communications involving changing TARPs.** Application and progression of TARPs during the longwall take-off process varied from that set out in the Sealing Management Plan, and communication of TARPs was found to be inconsistent. TARPs describe actions that must be taken by mine personnel in response to observation of certain conditions or triggers (e.g. gas levels) that deviate from normal. TARPs should clearly define their applicability and the required action items when trigger points are reached.
- G) Peabody will review the Principal Hazard Management Plan (PHMP) for Spontaneous Combustion and Emergency Response around the provision of clear and concise guidance in relation to gas readings.** The company will also implement a regime for reviewing the PHMP at established intervals and updating as required.
- H) Within the Site Incident Management Team (SIMT), Peabody will appoint an independent facilitator whose role will be to assist the SIMT in the decision-making process (rather than the technical aspects of SIMT decisions).** The SIMT was comprised primarily of North Goonyella mine management personnel, though various other parties also provided input into the SIMT's decision making process. At times, it was challenging for the SIMT to coordinate and address differing viewpoints from multiple stakeholders. Although these outside parties each play critical roles in responding to a mine emergency, the varied viewpoints need to be effectively managed and facilitated during an incident.
- I) Peabody is taking action to install quickly closable remote ventilation control devices at each mine drift as we progress through the reventilation process. In addition, Peabody will evaluate options to remotely isolate portions of the longwall panel to provide an option to quickly close these devices after all personnel have been evacuated from the panel.** Peabody's ability to quickly seal the panel to extinguish the oxidation event before it developed into a fire was impaired once the mine was evacuated and exclusion zones were put in place. Once an oxidation event develops into a spontaneous combustion event, it is difficult to extinguish from the mine surface. The smaller the area of the mine that is sealed from the source of combustion, the less oxygen is available to support it and the quicker it begins to cool, which should facilitate expeditious recovery. These types of devices could be closed by personnel as part of an evacuation sequence, or through remote means. Emergency seals, which can be installed at chute and gate roads at longwall panels, will also be considered as part of an emergency sealing process.

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