Responses to outstanding questions

18 May Question and Answer Session

At the recent Question and Answer session held on the 18 May 2022 at Nenthead Village Hall, there were a number of questions that we committed to providing responses to after the event, once we had had the opportunity to gain input from our wider technical team.

Below are the questions asked and our response to those questions.

For this area, in an emergency – this is a chemical plant – if it's broken into, where is our point of call?

Key parts of the treatment scheme are continuously monitored through a "telemetry" system that collects data and sends it to us via the internet. This system is designed to cope with interruptions to the power and internet connections including, if necessary, switching the whole system off. For example, if the treatment scheme is broken into, the telemetry system will trigger an alarm to our control centre so that we can take action to check the site and buildings.

The only chemical stored on site will be the hydrogen peroxide used for odour control. This will be stored within the odour dosing building near the treatment ponds. This building will be designed to be secure against break-in and the chemicals will be stored in accordance with health and safety guidelines to minimise the risk of accidents.

In the event that you do need to contact us you can call the Coal Authority 24-hour number for reporting public safety hazards on **0800 288 4242.** This information will be put on notice boards at suitable locations.

Centrifugal pumps need an amount of water to operate. If there is not enough water, the pumps will stop. Over half a mile there will be a lot of friction. It will have to be a huge pump to be able to do that. Have you measured whether the system will, take the load?

At this stage of the scheme development, the exact details of the pumps have not been finalised because it depends on the pipeline length, dimensions, materials, elevation etc. However, based on the expected design, our engineers are confident that suitable pumps can be installed that will not overload the electricity system. Once the design is finalised, we intend to make this information available.

Where can we find evidence that this exact model has been tried and tested with a local community that hasn't been impacted?

The Coal Authority, through its operator (Severn Trent Services) uses chemical treatment at a number of its mine water treatment schemes for a mix of pH correction, oxidation and odour control. Hydrogen peroxide is currently dosed at 6 sites on a permanent basis across England, Scotland and Wales but is also used periodically on schemes during certain maintenance operations e.g., reed bed refurbishment.

Hydrogen peroxide dosing is done in two ways; through either a fixed permanent installation or through mobile trailers, both of which dose at either fixed rates or flow proportional depending on the facilities and requirements. Transportation of the hydrogen peroxide is undertaken by specialist licenced transport companies with delivery and storage meeting appropriate standards.

As an example of the effectiveness of hydrogen peroxide in reducing sulphide levels, during works at the Six Bells coal mine water treatment site in September last year, natural sulphide levels in the mine water were measured at 0.22mg/L when the hydrogen peroxide dosing system was temporarily turned off. When the peroxide dosing system was re-started, dissolved sulphide concentrations were below the detection limit of <0.02mg/L.