Nature Conservation Council
The voice for nature in NSW

Department of Planning and Environment
320 Pitt St
Sydney NSW 2000

27 May 2019

NCC SUBMISSION ON CLARENCE COAL (MOD 4)

Dear Sir/Madam,

The Nature Conservation Council of New South Wales (NCC) is the state's peak environment organisation. We represent over 150 environment groups and thousands of supporters across NSW. Together we are dedicated to protecting and conserving the wildlife, landscapes and natural resources of NSW.

We welcome the opportunity to comment on Centennial Coal's application to modify conditions of consent for the Clarence Colliery to increase the total allowable coal haulage off-site by road to the Mount Piper Power Station by 100,000 tonnes until 31 December 2020.

We encourage Centennial Coal, Energy Australia and the NSW Government to use the coal supply constraint at Mt Piper Power Station as an opportunity to diversify the region into tourism and clean sources of energy rather than increase heavy-vehicle traffic and air pollution for the people of Lithgow.

We are also very concerned about the impact of heavy diesel truck movements, mining and coal-fired power on air pollution and the health of residents in Lithgow and surrounding areas. **Although the direct emissions from this proposal are relatively small, the proposal must be considered in the context of the cumulative emissions load in the region**.

Therefore if it is approved we are seeking conditions to be attached to the consent which will reduce the air quality impact and ensure proper monitoring of air pollution in the Lithgow region. We recommend the addition of the following new conditions of consent if approval is granted:

1. Centennial must pay for the NSW Department of Planning and Environment to install, operate and maintain at least two permanent, National Association of Testing Authorities (NATA)-accredited, continuous air-quality monitoring stations in the Lithgow area. These should become part of the NSW Government's statewide air-quality monitoring network and monitor particles, sulfur dioxide, nitrogen oxides and ozone.

2. Trucks transporting coal from the premises must be covered immediately after loading to prevent wind blown emissions and spillage. The covering must be maintained until immediately before unloading the trucks.
3. The drop height when loading and unloading the trucks must be less than 1.5 metres.
4. The moisture content of the material transported must be at least 2%.
5. There must be a truck wheel wash before any truck used to haul coal leaves the mine or the destination to ensure that truck is clean and free of loose material.
6. All trucks used to haul coal from the site must be compliant with Euro VI standards for heavy vehicle emissions.

Air pollution is currently not adequately monitored in the Lithgow area

According to the NSW EPA:

"Fine particles are a priority for EPA action due to their adverse impacts on health, particularly for the elderly, children and those with existing health conditions. Numerous scientific studies have linked particle exposure to a variety of lung and heart problems, including premature death in people with heart or lung disease; nonfatal heart attacks; irregular heartbeat; aggravated asthma; decreased lung function; and increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing."

In the Lithgow region there are a number of significant sources of fine particle pollution. These include the Mt Piper Power Station and local mines including Centennial's Springvale and Clarence collieries. According to data from the National Pollutant Inventory in 2017/18 there were 395,700 kg of particles fine particles emitted from these three sources alone, including 61,000 kg of ultra-fine particles less than 2.5um.

Unfortunately it is not currently possible to accurately assess the impact all this accumulated air pollution is having on the health of residents in Lithgow and the surrounding region. This is because there is currently no NATA-accredited, continuous air-quality monitoring station in the Lithgow area as part of the NSW Government's statewide air-quality monitoring network.

In comparable regions such as Muswellbrook and Singleton, near the Bayswater and Liddell coal-fired power stations and Hunter coal mines, or Stockton at the Port of Newcastle, publicly available data shows these areas regularly breach national air-quality standards for fine particles.

Annual average emissions of PM2.5
(Maximum allowable 8 µg/m3)

	2015	2016	2017	2018
Stockton	9.5	9.7	9.8	10
Muswellbrook	8.7	8.4	9.4	9.4
Singleton	7.6	7.9	8.2	8.1

Data from NSW Health also reveals the Lithgow region has a higher rate of premature deaths than the state average at 125 per 100,000, compared with 104 per 100,000 in 2015-16.

Transportation of coal by road will add to the cumulative air pollution load

The 2011 *NSW Coal Mining Benchmarking Study: International Best Practice Measures to Prevent and/or Minimise Emissions of Particulate Matter from Coal Mining,* commissioned by the NSW Office of Environment and Heritage, identified wheel-generated particulates on unpaved roads as the number-one source of particulate matter associated with coal mining. It accounts for 52.4% of all particle pollution from coal mines in the Greater Metropolitan Region.

While the majority of the distance travelled between the colliery and the power station under this proposal will be on sealed public roads, there will still be significant truck movements on unpaved roads at either end of the journey. These movements, which would be avoided if Clarence continued to send all of its coal by rail at Newnes Junction, will add to the overall particulate pollution burden in the region.

Transferring coal and dumping coal into and out of trucks, as will occur under this proposal, are also major sources of particulate pollution associated with coal mining identified in the benchmarking study. This is mainly as a result of the air turbulence induced by dropping the coal from a height and spilled coal during transportation. Trucks unloading coal are the 13th biggest source of particle emissions (PM2.5 and PM10) associated with coal mining.

The NSW EPA also identifies diesel exhaust emissions from heavy trucks as a major source of fine particle pollution, as well as ozone-forming nitrogen oxides and toxins. The proposed modification will result in an additional 30–56 daily movements of heavy diesel trucks through Lithgow. This is on top of the existing 50 trucks movements per day associated a similar modification granted in 2014 which has allowed 100,000 tonnes per year of coal haulage to the west.

Centennial should be required to ensure public air-pollution monitoring

- ***Recommendation 2: Centennial must pay for the NSW Department of Planning and Environment to install, operate and maintain at least two permanent, NATA-accredited, continuous air-quality monitoring stations in the Lithgow area. These should become part of the NSW Government's statewide air-quality monitoring network and monitor particles, sulfur dioxide, nitrogen oxides and ozone.***

It is unacceptable for any additional sources of air pollution to add to the already large cumulative load in the Lithgow region. If, however, the project is approved there should be a minimum requirement that the polluter must pay the costs for air-quality monitoring to better understand the impact on the health of the local population. This is especially the case with Centennial Coal which operates the Springvale and Clarence collieries, as well as supplying the coal for the Mt Piper power station, the largest emitter of fine particle pollution in the region. They have a responsibility to ensure health authorities and residents are better able to understand the cost to their health and wellbeing of air pollution and identify opportunities to mitigate the threat. This modification application is an opportunity to ensure Centennial Coal take on this responsibility.

The monitoring stations should be publicly owned and operated as part of the NSW Government's statewide air-quality monitoring network. It is not good enough for the monitoring to be privately undertaken by the polluter. To ensure access, consistency and public confidence in the quality of the data being reported, Centennial Coal should be required to pay for the NSW Department of Planning and Environment to install, operate and maintain at least two permanent, NATA-accredited, continuous air-quality monitoring stations

in the Lithgow area. At a minimum these stations should monitor particles, sulfur dioxide, nitrogen oxides and ozone.

Best practice pollution reduction controls should be mandatory

Given the proposed transportation of coal by road will add to the cumulative air-pollution load in the Lithgow region, if approval is granted for this modification then the conditions of consent should require best-practice pollution reduction controls for the loading, transport and unloading of the coal. It is not enough to rely on the imprecise pollution reduction requirements of the Clarence Colliery Environmental Protection License to ensure best practice is adopted and the following recommendations should be adopted as mandatory.

- ***Recommendation 3: Trucks transporting coal from the premises must be covered immediately after loading to prevent wind-blown emissions and spillage. The covering must be maintained until immediately before unloading the trucks.***

This condition is consistent with a similar condition of consent that applies to the nearby Cullen Valley coal mine and the Wallerawang Quarry and at least six other coal mines in the Greater Metropolitan Region. While the Roads and Maritime Services (RMS) already requires all coal trucks on public roads to cover their loads, the main source of particulate pollution is from wheel generated particulates on unpaved roads. There is currently no requirement that we can identify for Centennial Coal to cover its coal loads immediately after loading and all the way up until the point of unloading, even while on the mine or power station site.

The current RMS rules apply to the truck drivers themselves as a condition of their license, so this recommendation would also ensure Centennial Coal is directly responsible for ensuring its drivers having covered loads.

- ***Recommendation 4: The drop height when loading and unloading the trucks must be less than 1.5 metres.***

According to the 2011 *NSW Coal Mining Benchmarking Study* "reducing the drop height [for loading and unloading coal] from 3 metres to less than 1.5 metres will reduce total PM10 emissions by 30%". This a reasonable requirement to ensure particulate pollution is minimised at both the mine and the power station.

- ***Recommendation 5: The moisture content of the material transported must be at least 2%.***

According to the 2011 *NSW Coal Mining Benchmarking Study* increasing the moisture content of the material in coal stockpiles from 1% to 2% would reduce the PM10 emission rate by 38%. It is reasonable to require coal from Clarence Colliery to at least meet this standard for the product they transport to reduce particulate pollution at the destination.

- ***Recommendation 6: There must be a truck wheel wash before any truck used to haul coal leaves the mine or the destination to ensure that truck is clean and free of loose material.***

This is identified in the 2011 *NSW Coal Mining Benchmarking Study* as a best practice measure to control emissions of particulate matter from trucks and should be made mandatory.

Diesel emissions should be reduced

- ***Recommendation 7: All trucks used to haul coal from the site must be compliant with Euro VI standards for heavy vehicle emissions.***

The NSW EPA has recognised that "there are significant health and economic gains to be made from reducing exposure to particle and diesel pollution". The World Health Organisation's International Agency for Research on Cancer (IARC) has also classified diesel exhaust as a human carcinogen, based on evidence that exposure increases the risk of lung cancer. The IARC experts commented that their findings demonstrated the need to reduce exposure to diesel as a matter of protecting not only occupational health, but general population health as well.

Currently on-road diesel exhaust (from heavy and light duty vehicles) make up 4% of human-made fine particle emissions in the Greater Metropolitan Region.

The Euro VI standards for heavy vehicle diesel emissions are currently best practice globally. They were introduced in 2013/2014 and are comparable in stringency to the US 2010 standards. In Australia the current minimum standard for new heavy vehicles, which is based on the Euro V standards, were introduced in 2006. The current Australian standards allow twice as much particle pollution and five times the level of nitrous oxide emissions as Euro VI standards.

Under the current rules, trucks that are older than this do not need to meet this standard and according to the ABS January 2017 Motor Vehicle Census, almost forty-two percent (41.7%) of the nation's truck fleet was manufactured before 2003 when little or no exhaust emission regulation existed.

The Australian Government's Ministerial Forum on Vehicle Emissions is currently undertaking a review to consider whether Australia should adopt the Euro VI standards for heavy vehicles. This has recently been supported by the Truck Industry Council who are calling for an accelerated program of uptake of Euro VI emission standard compliant trucks.

It is reasonable to expect that Centennial Coal will use trucks that meet best-practice global standards for diesel emissions.

Please do not hesitate to contact Jack Gough, Policy and Research Coordinator, on (02) 9516 1488 or jgough@nature.org.au should you require any further information.

Yours sincerely,

Kate Smolski
Nature Conservation Council of NSW