

Newcastle is often at the margins of the writing of history in Australia but one important exception is the struggle against visible air pollution. Newcastle's production and shipping of coal fuelled industrial development both in and outside of the city.

Concerned about the aesthetic, practical and health impacts of the burning of this coal, Newcastle also took the lead in pioneering responses to the smoke nuisance.

Coal mining in Newcastle began in the convict period and continued until World War I, first being conducted by the government, then by the Australian Agricultural Company and from the late 1840s, by a growing number of private companies. Much of this coal was shipped out of Newcastle, to other Australian cities, New Zealand and as far away as South America. The remainder was burned in the city. Coal-fired ships, railways and trams, coal mines, gas production, factory furnaces and fires for heating and cooking gave Newcastle an undeniably smoke-filled atmosphere by the late nineteenth century.

Newcastle was not alone in having polluted skies. With the majority of factories and much larger populations, Sydney and Melbourne also suffered from smoke pollution, as did other smaller centres. As the nineteenth century progressed, a minority began to express their concern over what they called the smoke nuisance. In Newcastle, this group was troubled by the soiling of goods in shops and the need to keep windows shut to exclude the smoke, but also worried about the impression Newcastle's excessive smokiness made on visitors. With few people in Sydney sharing the concern over smoke pollution, there was limited support from the colonial parliament to try to curb polluters, although the 1866 "Act to abate the Nuisance arising from the Smoke of Furnaces," the NSW Public Health Act 1902 and the 1906 and 1919 Local Government Acts all had provisions allowing for the regulation of gas, dust and smoke

Newcastle's air pollution worsened markedly after the opening of the BHP steelworks in 1915 and establishment of a cluster of related industries in the following decades. "Smoke pours from the factory and workshop, unchecked, and hangs over the city and suburbs like a pall," wrote one observer. During the Great Depression, Novocastrians were reluctant to complain about the smoke which symbolised employment and with World War II, they feared impeding the war effort. Smoke was the Faustian bargain Novocastrians struck in exchange for employment and a key niche in the national economy.

The turning point for pollution control was the end of World War II. Concerns over the physical and psychological health of residents, physical damage to buildings, and the perception of Newcastle as a "smoke begrimed" place to be avoided, led the Greater Newcastle Council to establish a Smoke Advisory Panel in 1947, consisting of its Health Committee and representatives of the most active polluters. Visible smoke was the key target of reform as little was known about the presence and impact of other pollutants such as ozone and nitrogen oxides which are now of concern. Informed by scientific approaches pioneered in the US and the United Kingdom, the Council began monitoring pollution by collecting insoluble solids at various points around the city and making visual assessments of smoke densities. In the first year of monitoring, 1951, Smoke Advisory Panel recorded a fallout of 87.5 tons per square mile per month. This confirmed that Newcastle had a serious air pollution problem, less than that of Sheffield but greater than London.

The data collected were used to pressure local enterprises to reduce their emissions and to track improvements as smoke reduction measures were put in place.

When the manager of the BHP steelworks was called before the Panel in 1949, he gave numerous excuses for the amount of smoke coming from the steelworks, claiming that Newcastle was less smokey than St. Louis or Pittsburgh. Approaches to the Zaara Street Power Station, Newbold Refractories and other industries met with similar responses which suggested that their production was more important than Newcastle's air quality.

Undaunted, the Smoke Advisory Panel gathered information on methods and benefits of smoke reduction from authorities overseas including the British Coal Utilisation Research Association. As managers of polluting enterprises were educated about the fuel efficiencies which could be gained through smoke abatement measures, their level of cooperation improved. The measures adopted were effective in improving Newcastle's air quality. The average fall out of insoluble solids as recorded by the Council's monitoring stations declined to just 14.40 tons in 1971; smoke density measured at the City Hall was reduced by more than half between 1957 and 1971.

Newcastle's pollution reduction initiatives served as a model for Balmain, Leichhardt and Wollongong Councils. These initiatives, in combination with dramatic events such as the London smog of December 1952, in which thousands of people died as a result of heavy air pollution, and the passage of air pollution legislation in the United Kingdom, inspired the NSW state government to form a Sydney Smoke Abatement Committee in 1955. It drew up legislation for the NSW Clean Air Act of 1961, administered by the NSW Department of Health.

The establishment of Newcastle's Smoke Advisory Panel did not end air pollution in Newcastle and the Council continued to monitor air quality. Problematic levels of pollution continued for many decades although Newcastle now enjoys air which is

cleaner than that of both Sydney and Wollongong and visible smoke is well controlled. The Committee did create a turning point in attitudes to air pollution control by demonstrating that smoke was a serious problem which could be addressed without making polluting enterprises unviable. By locating overseas precedents and combining scientific approaches to air pollution monitoring with practical advice, Newcastle Council provided a model which was later extended to other Council areas and ultimately to all three of NSW's industrial centres. Other states also addressed air pollution, with Victoria's Clean Air Act being passed in 1958 and Queensland's in 1963. Newcastle led the way in bringing coal into the Australian economy. More than a century and a half later, the city also led the way in dealing with the smoke which accompanied the burning of coal.

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