

Abstract

This thesis provides an historical analysis of changing ideas around coal and its environmental impact. Special reference to the Witbank coalfield between 1906 and 1978 provides a unique representation of how South African coal mining was perceived in the early twentieth century, particularly in revealing how these ideas were shaped by the appearance of different manifestations of coal-based pollution in the region. Each chapter provides a thematic representation of different aspects of coal-based pollution as they manifested over the course of the twentieth century. The first chapter highlights how early signs of environmental change were easily ignored by State and industry, owing to limited understanding of the broader impact of pollution, as well as the localized impact of early signs of pollution. The introduction of electricity by the early 1920s enabled the growth of the Witbank coal industry. The impact of this development is assessed in the second chapter, which explores how local industry was stimulated by the needs of the Second World War. This resulted in greater signs of pollution, and signaled a shift in the way pollution was understood in the region. National responses to intensified atmospheric pollution between the late 1940s and the mid-1960s resulted in the development of South Africa's first legislation related directly to the growing problem of pollution, the Atmospheric Pollution Prevention Act (APPA) of 1965. The third chapter provides insights into the way pollution was understood during this time by assessing the ideas that influenced the nature of the Act. The final chapter of the thesis reviews responses to the APPA by the Witbank coal industry. It also explores the way in which water pollution was understood in light of the appearance of severe mine water pollution. The central concern of this study is to demonstrate an evolution of the ideas that shaped the way in which South African coal-based pollution has been conceived. The study thus reflects how and why these ideas have changed over time.