

# CLEAN AIR LEGISLATION IN AUSTRALIA

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*The problem of air pollution is not a new one—it has been recognized in clean air legislation for over a decade. However, with the advent of the world-wide anti-pollution campaign and its concomitant restructuring of priorities, a new assessment of the problem has become necessary. In the following article, Mrs Lanteri makes this assessment. She discusses State clean air legislation with particular reference to the size and nature of enforcement agencies and efficacy of penalties, and suggests Commonwealth intervention as helping to provide a more effective means of air pollution control.*

## 1 INTRODUCTION

Exploitation of the resources of the earth is necessary to develop and maintain a standard of living acceptable to its population. An inevitable consequence of the processing and consumption of these resources is the production of waste materials, and their dispersal in one form or another into the environment. The toxic effects of these materials on the ecology of the planet are complex and in many cases unknown. The resources of the earth are not infinite and the capacity of the ecosystem<sup>1</sup> of earth to adjust to large scale changes in its equilibrium without consequent significant changes in its climate or environment is untested. Nevertheless, it is this environment which produced man and on which he still largely relies for his survival. While it is sheer fantasy to pretend that industrial development could or should cease, to ignore the effects of uncontrolled development is blind. The need to achieve some balance between the drive for material progress and the restraints dictated by a larger view is at the heart of the complex of problems related to the movement for conservation of the environment.<sup>2</sup>

The waste materials produced by a civilized and largely urban population are many and varied. The most obvious and immediate effect of their dispersal is the pollution of the lower levels of the atmosphere and of the waterways and coastal regions. Although these represent only part of perhaps more fundamental sequences of change they are the first to attract action through legal control. In Australia, oddly enough considering the national preoccupation with water supply, legislative control of air pollution is more developed than water quality management.

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<sup>1</sup> A closed system of interdependence of living forms and their complex relation to physical environment.

<sup>2</sup> For some general material on the inter-relationship between man and the environment see: Dubos, *Man Medicine and Environment* (1970); Arvill, *Man and Environment* (1967); Fraser Darling, *Wilderness and Plenty* (1970).

## 2 SOURCES MEASUREMENTS AND COST OF AIR POLLUTION<sup>3</sup>

Air pollutants are emitted from a variety of sources in a number of forms. They may arise from public works, commercial and industrial enterprises and domestic activities, and any one source may emit several pollutants. They can however be broadly classified into two types. These are particulates or small but solid particles which may be suspended in the air as dust or smoke or deposited on surfaces as soot, ash, dust or grit; and gaseous emission or fumes.

Particulate emissions arise most frequently from combustion processes ranging from domestic heating systems to industrial boiler furnaces, municipal incinerators and motor engines. Smoke emitted from these processes contains carbon particles in varying sizes which reduce visibility while airborne and sooner or later depending on their density cause fall-out damage on surfaces such as buildings, cars, clothing, vegetation and human tissue. Extractive industries such as quarrying, clay extraction and mining, as well as cement works, certain chemical processes such as fertilizer manufacturing and metallurgical works also are sources of types of particulate pollutants.

Gaseous emissions also arise from combustion processes where the constituents of the fuel combine with oxygen from the air. Carbon dioxide and sulphur dioxide are produced in this way. Chemical plants and petroleum refineries, storage and handling processes also give rise to a variety of gaseous emissions. Some gases may undergo changes after emission which produce secondary pollutants. Examples of such processes are the creation of sulphuric acid droplets by the combination of sulphur dioxide with atmospheric water vapour and smog caused by the photochemical interaction of sunlight and unburnt hydrocarbons emitted from motor exhausts.

The measurements of degrees of air pollution depend on the type and source of the particular pollutant and the place chosen to conduct its measurement. For instance to measure chimney emissions one may decide to examine both the darkness of the smoke as it comes out of the chimney and the fall-out rate of its constituent particulates at ground level at varying distances from the base of the chimney.<sup>4</sup> Random

<sup>3</sup> The material covered in this section is digested from several sources; see especially: *Air Pollution* (1961), World Health Organization Monograph Series No. 46; *Environmental Pollution*, Australian Conservation Foundation Special Publication No. 6; Commonwealth of Australia, *Report of the Senate Select Committee on Air Pollution* (1969), Parliamentary Paper No. 91; Ralph Nader Study Group Report on Air Pollution, *Vanishing Air* (1970).

<sup>4</sup> In Australia the most common method of smoke density measurement is by reference to a device known as the Ringleman Chart. This method involves the observer making a comparison of the colour of the smoke plume with the four grades of colour on the chart. Although simple and cheap to carry out, it is clearly vulnerable to subjective judgment factors and provides no permanent evidentiary record of the reading. However, legislation in Australia measures or defines dark and dense smoke by reference to this chart. Cf. Clean Air Act 1958 s. 3; Clean Air Act 1963-1970 (Qld), s. 7; Clean Air Act 1964-1967 (W.A.), s. 6 and Clean Air Regulations 1967 (W.A.).

measurement of air quality at ground level is necessary to investigate ambient air quality and any measurement must take into account air flow patterns, meteorological conditions and even perhaps the day of the week. Complex as they may be, detailed measurements of ambient air quality and local air flow patterns are necessary for realistic standards of air quality and emissions at source to be drawn up. Because of the practical difficulties in air quality measurement and constant technical advances in industrial processes and control measures, specific standards for emissions are sometimes discarded in favour of the 'best practicable means' available to minimize or prevent pollution.<sup>5</sup> This approach is aimed at retaining as much flexibility in the legislation as possible so that it does not too soon become outdated and ineffective. The concept of the 'best practicable means' involves the reconciliation and balancing of three elements: technical feasibility, economic cost and current social attitudes. It is also necessary to indicate guidelines for the determining of the 'best practicable means' which might vary according to the circumstances, from statutory definition of 'presumptive' limits to a purely discretionary judgment of the enforcing officer in the light of the particular facts before him.

The calculation of the cost of air pollution to the community is also difficult. No real monetary value can be put on injury to health or aesthetic loss involved in living and working in unpleasant or squalid conditions. Those items which can be more realistically priced include medical expenses, loss of income, decreased productivity, maintenance and repair of property, damage to crops, vegetation and livestock, loss of fuel through incomplete combustion and the waste of many byproducts—the pollutants themselves. No survey of community cost has been carried out in Australia along these lines. In 1954 an estimate of the annual cost of air pollution in Britain was £250 million sterling or £5 sterling per head of population.<sup>6</sup> As the Senate Select Committee on Air Pollution in Australia points out, if the cost to Australia were only five dollars per head *per annum* the total annual loss would be \$60 million.<sup>7</sup>

### 3 HISTORY AND SOURCES OF AUSTRALIAN LEGISLATION

Although it appears<sup>8</sup> that a form of legislative control of air pollution existed as early as the fourteenth century, the magnitude of the problem of conservation of air quality has become really apparent only in fairly

<sup>5</sup> Cf. Clean Air Act 1958, s. 8; Clean Air Act 1961 (N.S.W.), s. 19. For a thorough analysis of the concept and application of the 'best practicable means' test see *New Zealand Board of Health Report Series* (1970) 15, paras 7.14-7.20; 7.35-7.36.

<sup>6</sup> United Kingdom, *Committee on Air Pollution Report* (1954) Cmd 9322, paras 19-23.

<sup>7</sup> Commonwealth of Australia, *op. cit.* paras 91-9.

<sup>8</sup> Chass and Feldman, 'Tears for John Doe' (1954) 27 *Southern California Law Review* 349, 351.

recent years. The increase in the number of sources and rate of atmospheric pollution which has resulted from the development and expansion of technology has highlighted the inadequacy of older legal controls. It has been suggested that common law actions for damages or injunctions have much to offer as effective weapons against air pollution, and it may be that private actions could provide a source of compensation to victims of pollution which is a matter generally ignored in existing legislative schemes.<sup>9</sup> However the very fact that the problem of air pollution has reached its present magnitude surely indicates that in Australia at least it is unreal to expect effective control if it is left in this sense in private hands. The significant characteristic of the available common law remedies is that they are designed to compensate rather than prevent, and with the limited exception of the injunction, concentration is focussed on monetary reparation rather than preventive action.

In the case of damages, they will fail as deterrents because the sums awarded in any action will rarely be great enough to make it uneconomic for the defendant to continue his activities without any significant change. Relatively few people are aware of their rights and fewer still attempt to enforce them through the courts. Some of this disinclination to go to the trouble and expense of litigation is justified. Even if the action is brought, the plaintiff may face difficult problems of proof and causation especially in cases concerning personal injuries. However, it would be highly undesirable for any statutory programme to abrogate common law rights available in cases of injury or loss caused by air pollution. Although there may be some adjustments required to allow both statutory control measures and private actions to coexist smoothly, the latter provides a source of compensation and with improved procedures a strong additional weapon against polluters.

In the mid-twentieth century, effective control and abatement of air pollution necessitates specific legislation.<sup>10</sup> The field of air quality control is a complex of sociological, legal, economic and technological problems. Legislation should aim at a balance between the need for progress in a consumer-oriented society—with the fundamental requirements of a healthy and aesthetically satisfying civilization, and where possible should be preceded by soundly based research involving several disciplines.

<sup>9</sup> Actions most likely to be available in Australia in this context are negligence, public and private nuisance, a *Rylands v. Fletcher* type action and perhaps trespass. There are few reported cases of interest; see however *Don Brass Foundry Pty Ltd v. Stead* (1948) 48 S.R. (N.S.W.) 482; *Dunstan v. King* [1948] V.L.R. 269; *Harkess v. Woodhead* [1950] S.A.S.R. 54 (all successful actions for injunctions against private nuisance); and *Baulkham Hills Shire Council v. A. V. Walsh Pty Ltd* (1968) 15 L.G.R.A. 333 (public nuisance). In the United States there seems to be a wider range of possibilities; see Wolf, (1968) 5 *Trial Lawyers Quarterly* 22; and Murphy, 'Environmental Law: New Legal Concepts in the Anti-pollution Fight' (1971) 36 *Missouri Law Review* 78.

<sup>10</sup> Speck, 'Oregon's Statutory and Common Law Efforts to Control Air Pollution: An Analysis and Comparison' (1970) 50 *Oregon Law Review* 85.

Early legislative control of air pollution was generally limited to the proscription of dark smoke and offensive smells and was based on governmental power to regulate and prohibit activities creating public nuisances or posing a threat to public health. Examples of this type of control are found in the nuisance and offensive trade provisions of the local government and public health legislation of the various States in the form of delegation of regulatory powers to the health departments and local councils.<sup>11</sup> Until the passage of specific clean air legislation, this type of control was the only really significant legislative measure in Australia. Although there were other provisions aimed at control of smoke and fumes, they were scattered through many unrelated Acts and were clearly regarded as auxiliary to the main purpose of the Act in which they appeared.<sup>12</sup> The history of specific legislation in this field in Australia properly begins in 1957 with the passage of the Clean Air Act of Victoria. The developments in this field in Australia since 1957 are only a small part of a world-wide development in the growth of sophisticated and comprehensive legislative schemes to prevent and abate pollution of the environment and to encourage the conservation of natural resources.

Australian clean air legislation is broadly modelled on British legislation. After the London smog disaster of December 1952, the British government set up the Beaver Commission to investigate air pollution and make recommendations for improved legal control. Pollution from chemical processes was covered in the United Kingdom by the Alkali, *et cetera*, Works Regulation Act 1906, which established a system of registration and inspection of premises likely to emit noxious gases. This Act was supplemented by the smoke abatement provisions of the Public Health Act 1936. When the Commission tabled its report in 1954,<sup>13</sup> it revealed that the Public Health Act provisions were limited in their effect and presented difficulties of enforcement to the local bodies charged with their administration. The Commission made sweeping recommendations for further legislation aimed at the specific control of smoke, dust and grit emissions. Consequently, the Clean Air Act 1956 was passed. This

<sup>11</sup> Health Act 1958, ss 41-5.

Local Government Act 1958, ss 809, 810.

Public Health Act 1902-1965 (N.S.W.), ss 64-71, 102-5.

Local Government Act 1919 (N.S.W.), ss 278-303.

Health Act 1937 (Qld), ss 77-92.

Local Government Act 1936 (Qld), s. 30.

Health Act 1935-1968 (S.A.), ss 82-91.

Local Government Act 1934-1969 (S.A.), s. 549.

Health Act 1911-1966 (W.A.), ss 187-200.

Local Government Act 1960-1967 (W.A.), ss 201, 402, 433.

Public Health Act 1935 (Tas.), ss 91, 98-102, 108-12.

Local Government Act 1962 (Tas.), ss 188-201.

<sup>12</sup> For instance see the Motor Car Act 1958, s. 83(1); Police Offences Act 1958, s. 5(1); Cemeteries Act 1958, s. 22.

<sup>13</sup> United Kingdom, *op. cit.* 9322.

Act covers the emission of smoke, dust and grit from any building, chimney or plant, requires the approval by the local authority of any plans for new plant and makes provision for the creation of 'smoke control areas' where any emission of smoke is an offence. The Clean Air Act is regarded as supplementary to the Alkali Act, and together they cover a broad range of pollutants emitted from both industrial and domestic sources.

The passage of the United Kingdom Clean Air Act was quickly followed by the Clean Air Act of Victoria in 1957, the first State in Australia to enact such legislation. The 1957 Act was the result of a private member's Bill and was replaced in 1958 with Government inspired legislation. It is modelled on the industrial provisions of the United Kingdom Clean Air Act.

The Clean Air Act of New South Wales was passed in 1961. It followed the investigations of a Smoke Abatement Committee established by the State government in 1955, and is substantially based on the recommendations of that Committee. It largely follows the permit-oriented approach of the United Kingdom Alkali Act.

Both Queensland<sup>14</sup> and Western Australia<sup>15</sup> have adopted legislation which is substantially the same as that of New South Wales. South Australia has amended its Health Act by inserting provisions of a general nature.<sup>16</sup> Tasmania is the only State without specific clean air legislation although there are provisions in the Public Health Act and the Local Government Act<sup>17</sup> which allow some control. An Inter-departmental Committee on Industrial Hygiene is currently investigating *inter alia* air pollution control problems with a view to making recommendations for legislative action.

Until the formation of the Senate Select Committee on Air Pollution in April 1968 the Commonwealth had taken no active role in this field. There is no clear head of power in the Constitution which unambiguously makes the Commonwealth competent to legislate for the control of air pollution outside its own territories. There may be areas where such legislation could be properly said to be incidental to the execution of powers clearly vested in the Commonwealth such as astronomical and meteorological observation.<sup>18</sup> It is also possible, at least theoretically, that the States could refer to the Commonwealth power to legislate with respect

<sup>14</sup> Clean Air Act 1963-1970 (Qld). Proclaimed 8 May 1965 in the Brisbane and Ipswich areas.

<sup>15</sup> Clean Air Act 1964-1967 (W.A.). Proclaimed on 14 April 1967 and brought into force on 2 June 1967 in areas comprising townships and built-up areas with a margin of five miles around, and any more sparsely residential areas in which a major industry has been established.

<sup>16</sup> Health Act 1935-1968 (S.A.), ss 94a-4c.

<sup>17</sup> See n. 11 *supra*.

<sup>18</sup> Constitution, s. 51(8), (39).

to pollution control<sup>19</sup> or that the Constitution could be amended to add this power to those already held.<sup>20</sup> These two courses, however, must be regarded as exceedingly remote at the present time and of no immediate practical importance. It is rather unlikely that direct legislative action such as that of the United States federal government<sup>21</sup> will be taken here given the present distribution of powers under the Constitution, and the attitude of the High Court to any barefaced attempt to meddle with them. Perhaps a more promising basis for Commonwealth action might be the grants power which effectively enables the Commonwealth to make financial grants to the States for special purposes and subject to such conditions as it desires.<sup>22</sup> This power has already been used to give the Commonwealth control over such disparate matters as education,<sup>23</sup> water resources investigations<sup>24</sup> and mental health institutions.<sup>25</sup> It does not seem too fantastic a possibility that it may also be used in the future as the basis for indirect action by the Commonwealth on a national scale to regulate and control air pollution—or indeed the management of any natural resources. The role of the Commonwealth according to the Senate Select Committee Report is to encourage, co-ordinate and supplement State programmes through financial assistance, research and dissemination of information.<sup>26</sup> The Report recommended that the Commonwealth government should initiate a conference between itself and the State governments to this end. It was also suggested that existing Commonwealth bodies such as the C.S.I.R.O. and the Bureau of Meteorology be used to conduct research programmes and that grants should be made to universities for these purposes. It also recommended that financial assistance to industry through tax concessions be investigated. To date there have been no substantial moves to effectively implement these recommendations, although the need for national co-ordination of policy, finance and research is an urgent one.

#### 4 AUSTRALIAN STATE LEGISLATION

The Clean Air Acts of Victoria and New South Wales represent the two main approaches to legislative control of air pollution in Australia. They will be discussed in detail. The Queensland and Western Australian Acts

<sup>19</sup> Constitution, s. 51(37).

<sup>20</sup> Constitution, s. 128.

<sup>21</sup> *E.g.* National Environmental Policy Act (U.S.A.) 1969, 42 U.S.C. § 4321 (Supp. V. 1970). Air Quality Act 1967 (U.S.A.) (81 Stat. 485). For comment on latter see Pollack, 'Legal Boundaries of Air Pollution Control—State and Local Legislative Purpose and Techniques' (1968) *Law and Contemporary Problems* 331, 339, and Ralph Nader Study Group Report on Air Pollution, *op. cit.* 259 ff.

<sup>22</sup> Constitution, s. 96; see also Myers, 'The Grants Power—Key to Commonwealth-State Financial Relations' (1970) 7 *M.U.L.R.* 549.

<sup>23</sup> *E.g.* Universities (Financial Assistance) Act 1963-1967 (Cth), States Grants (Advanced Education) Act 1967 (Cth).

<sup>24</sup> States Grants (Research) Act 1965-1966 (Cth).

<sup>25</sup> States Grants (Mental Health Institutions) Act 1964-1967 (Cth).

<sup>26</sup> Commonwealth of Australia, *op. cit.* paras 195-220.

are substantially the same as that of New South Wales and references to the corresponding sections of those Acts will be made through the discussion of that legislation. The provisions which are significantly different will be separately noted.

(a) *Victoria*<sup>27</sup>

The Victorian Act sets out to control air pollution of both gaseous and particulate types from industrial sources. The definition of terms such as 'air impurities', 'fireplace' and 'industrial plant'<sup>28</sup> make it clear that the provisions of the Act are aimed at industrial or commercial sources and there is no attempt to provide specifically for control of other sources by the Clean Air Act.<sup>29</sup>

The Act is administered by the Commission of Public Health which may by writing under its hand delegate all or any of its powers and duties under the act to any local council.<sup>30</sup> This was done in 1958 in respect of the provisions concerning the control of dark and dense smoke from industrial chimneys.<sup>31</sup> Thus prime responsibility for enforcing regulations implementing these provisions is now in the hands of local councils, which may choose to act either under the Clean Air Act, or the appropriate provisions of the Health and Local Government Acts.<sup>32</sup> Apart from this delegation the practical administration of the Clean Air Act is carried out by the Clean Air Section of the Engineering Division of the Health Department. This Section is currently staffed by seven officers and in 1969-1970 was provided with an operating budget of \$7,387.<sup>33</sup> The prime functions of the Clean Air Section include investigation into complaints of air pollution from industrial sources, review of designs for proposed industrial plants pursuant to the Act, collection of information on technical aspects of atmosphere pollution and its control and advising and assisting local councils on methods of abatement and control.

The Act establishes a Clean Air Committee of twelve members who represent *inter alia* the Health Department, the State Electricity Commission, the Gas and Fuel Corporation, the Trades Hall Council and certain industries.<sup>34</sup> This Committee is purely advisory with no executive powers.

<sup>27</sup> Note should be taken at this point of the recent Environment Protection Act 1970 which when fully in force should provide the basis for control of all forms of pollution of the environment in Victoria. This Act will be further discussed in text accompanying note (T.A.N.) 99 *infra*.

<sup>28</sup> S. 3.

<sup>29</sup> There is provision for the Clean Air Committee to make recommendations to the Minister for measures to abate pollution from transport sources; s. 10 (10)(c). However the regulations currently in force concerning crank case emissions from motor cars were made pursuant to the Motor Car Act 1958; see Motor Car (Air Pollution) Regulations 1967; see also T.A.N. 35 *infra*.

<sup>30</sup> S. 5.

<sup>31</sup> S. 6.

<sup>32</sup> See n. 11 *supra*.

<sup>33</sup> Victoria, *Parliamentary Debates*, Legislative Assembly, 3 March 1970, 2863. The operating budget of the Clean Air Section has not been changed significantly since this figure was given in March 1970.

<sup>34</sup> S. 10.

Its duty is to carry out investigations of air pollution problems generally and specifically as directed by the Minister of Health and report to him. The Act specifically requires the Committee to make recommendations concerning measures to abate and control vehicular sources of pollution, although the Act as it stands does not cover these sources of pollution in its control provisions.<sup>35</sup>

The main control provisions of the Act are as follows:

(i) the emission of dark or dense smoke from chimneys used in connexion with any industrial plant for periods of time in excess of limits fixed by regulation is prohibited;<sup>36</sup>

(ii) no new industrial fireplace can be installed unless it is so far as practicable smokeless when using fuel for which it was designed;<sup>37</sup>

(iii) the occupier of any premises using an industrial fireplace must use any practicable means for minimizing emissions of air impurities;<sup>38</sup> and

(iv) new industrial fireplaces must be equipped with air-cleaning devices approved by the Commission or the plans and installations of the fireplace must be so approved and the plant properly maintained and operated.<sup>39</sup>

The Governor-in-Council has power to make regulations implementing the provisions of the Act by, *inter alia*, defining special terms, setting emission standards and regulating fuel usage, and installation of industrial plant and air cleaning devices.<sup>40</sup> Regulations were made in 1958, 1961 and 1965. The 1965 regulations are consolidatory and repeal those earlier.<sup>41</sup> They define dark and dense smoke by reference to the Ringleman Chart, and 'practicable' is defined as 'reasonably practicable having regard amongst other things to local conditions and circumstances, to the financial implications and to the current state of technical knowledge'.<sup>42</sup> The regulations also provide *inter alia* permitted periods for the emission of smoke, methods of smoke measurement and permitted standards of concentration of other emissions. The penalties for breaches of regulations are perscribed therein as being not more than \$200. \$400 is the maximum penalty for an offence under the Act.<sup>43</sup>

To date the Clean Air Section has not initiated any prosecutions for breaches of the Clean Air Act, although successful actions had been conducted by certain local councils acting with the assistance of the

<sup>35</sup> See n. 29 *supra*.

<sup>36</sup> S. 6.

<sup>37</sup> S. 7; fireplaces are not required to comply with this section if their installation had begun, or an agreement to purchase or install them had been entered into before the commencement of the Clean Air Act 1957.

<sup>38</sup> S. 8.

<sup>39</sup> S. 9, 'new' fireplace is used here in the same sense as in n. 37 *supra*.

<sup>40</sup> S. 14.

<sup>41</sup> Clean Air Regulations 1965.

<sup>42</sup> See n. 5 *supra*.

<sup>43</sup> Clean Air Act 1958, s. 13.

Section under section six of that Act.<sup>44</sup> The philosophy behind this apparently permissive administration is based on the assumption that a policy of mutual co-operation between the Clean Air Section and industry is in the long run likely to lead to a more efficient reduction of air pollution than a less flexible approach. This is a reflection of the policy which resulted in the definition of 'practicable' to include consideration of financial implications and is by no means unique to Victoria. It may also be a reflection of the real difficulty of strict enforcement of the Act with a staff of seven to cope with industrial activities throughout the State.

(b) *New South Wales*

The Smoke Abatement Committee Report tabled in 1958 recommended a specific legislative scheme designed to meet modern air pollution problems in New South Wales through a special centralized organization. It also recommended that the cost of establishing and administering this organization be met substantially through a system of registration of certain industrial processes. The Clean Air Act 1961 largely embodies the recommendations of the Committee, and treats separately those premises which must be registered. It is thus convenient to discuss the provisions of the Act by reference to the type of premises controlled, although there are certain provisions which are of general application to which reference first must be made.

GENERAL PROVISIONS

The definitions given in the Act of special terms such as 'air impurity', 'chimney', 'fuel burning equipment' and 'industrial plant' do not reveal *prima facie* an intention on the part of the legislature to restrict operation of the Act to stationary industrial or commercial sources of pollution.<sup>45</sup> However, (unlike Victoria) there is no effective extension of its provisions to cover non-stationary or vehicular sources.<sup>46</sup>

<sup>44</sup> Victoria, *Parliamentary Debates*, Legislative Assembly, 24 February 1970, 2761. The councils were the cities of Brunswick, Geelong West, Port Melbourne and the Shire of Whittlesea; since February 1970 prosecutions have been also pressed by Altona, Oakleigh, Footscray, Preston, Broadmeadows and Nunawading.

<sup>45</sup> S. 5, cf. Qld s. 7, W.A. s. 6.

<sup>46</sup> S. 4. The provisions of the Maritime Services Act 1935 (N.S.W.), the Sydney Harbour Trust Act 1900 (N.S.W.), the Navigation Act 1901 (N.S.W.), the Motor Traffic Act 1909 (N.S.W.) and the Transport Act 1930 (N.S.W.) relating to air pollution are preserved and the Air Pollution Advisory Committee has no authority over sources covered by those Acts. Whilst it is true that the Clean Air Act has been primarily used in connection with the control of pollution in industrial sources up to the present time, it is being expanded into other fields. For instance, the Department has developed incinerator standards which can be applied by local governments under the fourth part of the Act to incinerators in apartment buildings, small industries and the like. Further, Cabinet has approved the preparation of a Bill to be incorporated in the Clean Air Act which will prohibit the operation or sale of motor vehicles unless devices are installed or other modifications made to lessen the emission of pollutants. Standards will be prescribed for the permissible rates of emission of these pollutants and to provide for the testing of anti-pollution devices.

An Air Pollution Advisory Committee is established with duties similar to those of its Victorian counterpart,<sup>47</sup> although it does not have power to make recommendations concerning measures to be taken to control vehicular sources of pollution. The membership of the Advisory Committee is set out in the Act and is similar to that of the Victorian Clean Air Committee although the representation of industry has rather a broader base being drawn from industrial representative bodies rather than from specific industries.

Practical administration of the Act is carried out by the Air Pollution Control Branch of the Division of Occupational Health in the Department of Health. The Branch has a staff of 37 officers with various technical qualifications.

The Minister has power to regulate the use of fuels, fuel-burning equipment and industrial plant in areas he specifies,<sup>48</sup> and may also order the cessation of any activities which cause emission of air impurities so as to be injurious to the public health.<sup>49</sup> The Act also provides for the conduct of appeals by persons aggrieved from decisions of the administrators of certain provisions to the local District Court or where the aggrieved person is a statutory body, to the Minister.<sup>50</sup>

The Governor may make regulations implementing the provisions of the Act by prescribing *inter alia* the procedure for registration and licensing of premises, the types of control equipment allowed and the standards and rates of emissions of air impurities allowed.<sup>51</sup> Penalties for offences against the Act may not exceed \$400, and for breach of a regulation may not exceed \$100.<sup>52</sup>

#### CONTROL OF 'SCHEDULED' PREMISES

Certain premises—those of a type likely to be major sources of pollution—are listed in the schedule to the Act. They include cement and ceramic works, chemical and metallurgical works and oil refineries, as well as any premises which use a boiler which is capable of consuming more than one ton of fuel *per* hour.<sup>53</sup> These premises are required to be licensed and to pay a fee fixed by regulation of up to \$1000.<sup>54</sup> Licences in respect of these premises are to be issued by the Under Secretary (of the Department

<sup>47</sup> Ss 6-8, *cf.* Qld ss. 8-17 (Air Pollution Council), W.A. ss 7-19 (Air Pollution Control Council).

There is however one significant distinction between the functions of these latter Councils and that of the N.S.W. Committee, see T.A.N. 69 and 71 *infra*.

<sup>48</sup> S. 24, *cf.* Qld s. 36, W.A. s. 43.

<sup>49</sup> S. 25, *cf.* Qld s. 37.

<sup>50</sup> S. 26, *cf.* Qld s. 39, W.A. s. 45.

<sup>51</sup> S. 34, *cf.* Qld s. 50, W.A. s. 53.

<sup>52</sup> Ss 32, 34(4), *cf.* Qld ss 46(4), 50(1)(xii), W.A. ss 52(2), 53(2)(g).

<sup>53</sup> All three States list the same premises except that Queensland makes the addition of sugar mills.

<sup>54</sup> S. 10, *cf.* Qld s. 18, W.A. s. 23 (maximum fee \$200).

of Health) after reference to the Advisory Committee and subject to such conditions as he thinks fit having regard to the recommendations of the Committee.<sup>55</sup> These conditions may for instance require the occupier to install and operate air pollution control equipment or alter existing chimney heights. There is also provision for exemptions from or reductions of prescribed fees.<sup>56</sup> The licensing provisions of the Act are to apply within such parts of New South Wales as and when proclaimed by the Governor in the Gazette.<sup>57</sup>

In addition to licensing provisions where relevant, the occupier of scheduled premises must comply with other requirements regarding the installation and maintenance of plant. He must maintain and operate properly and efficiently any air cleaning equipment which is installed<sup>58</sup> and must not without exemption from the Minister exceed prescribed emission standards.<sup>59</sup> Where there are no standards prescribed he must use such practicable means as necessary to minimize pollution. Practicable is defined as 'reasonably practicable having regard, amongst other things, to local conditions and circumstances, and to the current state of technical knowledge. . . .'<sup>60</sup>

The occupier is also prohibited from altering the operation of the activities carried out on the premises or installing or altering equipment without the approval of the Under Secretary after consultation with the Advisory Committee,<sup>61</sup> and he may be required to carry out alterations to his activities or equipment if air impurities are being or are likely to be emitted from the premises.<sup>62</sup>

Regulations setting licence fees and prescribing emission standards and methods of testing and analysis of air samples came into force in January 1965.<sup>63</sup> The standards set are substantially the same as those in force in Victoria.

#### CONTROL OF UNSCHEDULED PREMISES

In regard to unscheduled premises, the Act is to be primarily administered by local municipal authorities although the Department may act if necessary.<sup>64</sup> The occupier of any premises other than scheduled premises must not allow prescribed emission standards to be exceeded, and where no

<sup>55</sup> Ss 11 and 12, *cf.* Qld ss 19-21, W.A. ss 24-9.

<sup>56</sup> S. 13, *cf.* Qld s. 23, W.A. s. 30.

<sup>57</sup> S. 9, *cf.* Qld. s. 2, W.A. ss 2, 4(2).

<sup>58</sup> S. 14, *cf.* Qld s. 24, W.A. s. 31.

<sup>59</sup> S. 15, *cf.* Qld s. 26, W.A. s. 33. Both the latter States also prohibit the emission of dark smoke from these premises: *cf.* Qld s. 25, W.A. s. 32.

<sup>60</sup> S. 5, *cf.* Qld s. 7, W.A. s. 6.

<sup>61</sup> S. 16, *cf.* Qld s. 27, W.A. s. 34.

<sup>62</sup> S. 17, *cf.* Qld s. 28, W.A. s. 35.

<sup>63</sup> New South Wales Regulations 1964, No. 27.

<sup>64</sup> In Queensland and Western Australia local authorities have no powers or duties under the respective Clean Air Acts. See T.A.N. 69 and 71 *infra*.

standards are set, he must use such practicable means as may be necessary to minimize pollution, unless he has been specially exempted from this duty by the Minister.<sup>65</sup>

Where air pollution is likely to be emitted from premises the appropriate local authority may require the installation, operation or repair of control equipment on the alteration of chimney heights or otherwise operate as directed.<sup>66</sup> If the Under Secretary is of the opinion that an occupier has not taken all practicable means necessary to prevent or minimize pollution and the local authority has failed to act, he may make an order to the occupier requiring appropriate action to be taken. If any order made by a local authority is inconsistent with the terms of an exemption granted by the Minister, the order shall be ineffective to the extent of the inconsistency.<sup>67</sup>

Mines and open cut workings are also required to be operated using all practicable means necessary to prevent or minimize air pollution.<sup>68</sup>

Regulations prescribing standards of emissions for unscheduled premises came into effect in 1966.

### (c) *Queensland and Western Australia*

These States have passed Clean Air Acts which are similar to the Clean Air Act of New South Wales both in general approach and in most specific provisions. In the discussion of the latter Act references have been given to the corresponding sections of those States' legislation. However, there are certain distinctions between them which ought to be referred to specifically.

The Clean Air Act of Queensland was passed in 1963 following the report of the Air Pollution Committee tabled in 1961. The report was based on investigations carried out in the areas of Brisbane and Ipswich during 1959 and 1960. The Act came into force in those areas in May 1965 and will gradually be brought into force by proclamation throughout the State. There are two significant distinctions between this Act and that of New South Wales. Local authorities have no power under the Act and all administration is carried out by the Air Pollution Council subject to the Minister.<sup>69</sup> The Council, unlike its New South Wales and Victorian counterparts, has executive as well as advisory functions and is headed by a Director of Air Pollution Control directly responsible to the Council and to the Minister charged with the Administration of the Act. The other important characteristic of the Queensland Act is that it covers a wider

<sup>65</sup> S. 19, *cf.* Qld s. 31, W.A. s. 38. Both the latter States also prohibit the emission of dark smoke from chimneys: *cf.* Qld s. 30, W.A. s. 37.

<sup>66</sup> S. 20(1), *cf.* Qld s. 32(1), W.A. s. 39(1).

<sup>67</sup> S. 20(2), (3) and (4), *cf.* Qld s. 32(2), W.A. s. 39(2).

<sup>68</sup> S. 21.

<sup>69</sup> Qld ss 13 and 16.

base of sources of air pollution by including vessels and vehicular sources of pollution.<sup>70</sup>

The Clean Air Act of Western Australia was assented to in November 1964 and came into force in parts of the State in June 1967. The rest of the State will gradually be brought under its control by proclamation from time to time. In substance it is the same as the Queensland legislation with executive authority vested in the Air Pollution Control Council subject to the Minister.<sup>71</sup> The only important addition it makes is the creation of a scientific Advisory Committee to aid the work of the Air Pollution Control Council.<sup>72</sup> This Committee consists of five members with professional qualifications. They are a medical practitioner, fuel technologist, engineer, meteorologist, and chemist and two representatives of industry nominated by the Western Australian Chamber of Manufacturers. The functions of the Committee are set out and include advising the Council on the granting of licences and the attachment of conditions to them and generally assisting in the administration of the Act.

Regulations partially implementing these Acts came into force in Queensland in August 1968 and in Western Australia in April 1967 and May and August 1968. The penalties for breaches of regulations in both States may be up to \$200 and for offences against the Acts up to \$400 in Queensland and up to \$200 in Western Australia.<sup>73</sup>

#### (d) *South Australia*

There is no separate Clean Air Act in this State. However in 1963 the Health Act was amended by the insertion of Part VIII, Division 1 providing for measures to be taken by regulation to control air pollution.<sup>74</sup> The amendment is similar in structure to the Victorian legislative approach and has no provision for licensing premises. A Clean Air Committee was established with the functions of investigating problems and making recommendations to the Minister of Health in terms similar to those of the Victorian Committee. The Department of Health administers the provisions of the Health Act relating to air pollution through its Occupational Health Section. In 1969 regulations were gazetted which implement recommendations made to the Minister by the Committee and its advisers. They are to come into force in January 1972, but make provision only for the control of dark smoke.

In February 1970, the South Australian government appointed a Committee on Environment with the duty to enquire into all aspects of pollution in South Australia and to submit recommendations as to

<sup>70</sup> Queensland and Western Australia unlike New South Wales have not removed control of transport and like sources from the central agency. See n. 46 *supra*.

<sup>71</sup> W.A. s. 17.

<sup>72</sup> W.A. ss 20, 21.

<sup>73</sup> Qld ss 46(4), 50(1)(xii), W.A. ss 52(2), 53(2)(g).

<sup>74</sup> Health Act 1935-1963 (S.A.), s. 94a-c.

appropriate action. To date no publication has been made of any recommendations, although it is expected that they will ultimately include submissions concerning improved clean air legislation.

### 5 COMMENT ON STATE LEGISLATION

The first two States to legislate in Australia in the field of air pollution control chose rather different methods of approach and the States which followed them have preserved this dichotomy. This lack of uniformity of approach presents a divided front to the problems of control, with consequential problems. Industries with plant in more than one State may have to comply with widely different regulations or with virtually none at all. This imbalance may serve to attract polluting industries to States with little or no regulation to the detriment of the air quality of that State and the economic loss of others. The movement of air flows over State boundaries must sooner or later present problems of control which require concerted action on an interstate level rather than the disarray of present legislation, and certain types of pollution such as that arising from all modes of transport, probably the major single course of pollution, must be controlled through action on a national level.

In fact the disparity between the Victorian and New South Wales approaches is based on an unsatisfactory adoption of British legislation. The Alkali Act alone was recognized as being inadequate by the Beaver Commission and was complemented not supplanted by the Clear Air Act.<sup>75</sup> Together they present a composite picture. For any programme to be based on one or the other alone with the hope that it would provide complete control seems short sighted at least. This lack of uniformity of approach is one of the major defects in Australian legislative action in this field.

A legislative scheme to effectively prevent air pollution before it becomes a major problem is preferable to one which is based on punitive measures which can only become effective after emission of pollutants when there is already a serious abatement problem. The broad characteristics of an efficient preventive legislative scheme are as follows: a central autonomous enforcement and appeal agency which allows for the appointment of trained officers; scheduled premises which require permits to operate, and submission of plans for the repair, alteration and construction of new plant to the agency for approval and periodic inspection of plant by enforcement officers. Apart from specially scheduled premises all sources of pollution should come within the regulatory powers of the agency, and penalties for breaches should be realistically severe and strictly enforced.<sup>76</sup> Although both types of legislation in force in Australia have some characteristics of this type of scheme, neither is complete.

<sup>75</sup> See T.A.N. 13 *supra*.

<sup>76</sup> 'Smog—Can Legislation Clean the Air?' (1949) 1 *Stanford Law Review* 452.

The Senate Select Committee on Air Pollution was appointed in 1968 to report on air pollution problems in Australia. It tabled its report on 10 September 1969 after investigations covering all States.<sup>77</sup> The Report was prepared as a source of information for members of Parliament and the public rather than as a technical report and can be distinguished in this from the New Zealand Board of Health Report on Air Pollution referred to below. The scope of the enquiry is wide; it deals with the nature and effects of air pollution, practical methods of control and legislative provisions in force throughout Australia. Certain recommendations are made for action by both the States and the Commonwealth, and the suggestions for the improvement of existing State provisions are relevant to any discussion of legislation in this field in Australia.

According to the Report, the various States have recorded air quality measurements which indicate at best an 'improvement in the overall picture' in New South Wales.<sup>78</sup> The recordings for Victoria since the implementation of the Clean Air Act show slight improvement in some areas, *stasis* in others and worsening in a few.<sup>79</sup> Perhaps only these two States can be judged at all seriously considering the effective recency of implementation of legislation in the others. In any event, the figures given are difficult to evaluate accurately. Allowance should be made for the normal increase in industrial development over a period of years and also for the changes in social habits of fuel usage and technological improvements during the same time, all of which would affect certain pollutant measurements. Certainly results have not been spectacular or—even clear—anywhere.

There are several defects in the legislation apart from the lack of interstate uniformity which probably contribute to the relative lack of success in lowering recorded levels of emission of impurities. The comments and recommendations of the Senate Select Committee Report cover some of these inadequacies, although it is not exhaustive. In fact the tenor of the Report as a whole indicates a reluctance to be too trenchant in its criticisms and the recommendations made are put forward rather tentatively, as if the Committee was only too aware of its position as a Commonwealth enquiry intruding on a State preserve. Nevertheless, while acknowledging that the individual States have the prerogative of organizing their own programmes of control, the Report sets out a model administrative structure and suggests that there are certain broad characteristics of such a legislative scheme which are desirable.

The administrative structure advised is that there be established within the State Health Departments autonomous Clean Air Divisions headed by

<sup>77</sup> Commonwealth of Australia, *op. cit.*

<sup>78</sup> *Ibid.* para. 148.

<sup>79</sup> *Ibid.* para. 156.

a Director who should be responsible for the administration of the legislation to the appropriate Minister through a Clean Air Council similar in membership to those already existing.<sup>80</sup> This suggestion was inspired by the Queensland experience, and the Committee considered that such an arrangement would be more effective than the relatively small Clean Air Sections tucked away in Health Departments and competing with other sections for sufficient funds. In what is perhaps the most caustic comment on State practice, the report further recommends that the Divisions of the Departments charged with the practical administration of the provisions should be realistically staffed<sup>81</sup>—a clear reference to an earlier comment on the gross inadequacy of the number of staff of the Victorian Clean Air Section.<sup>82</sup> These recommendations would involve changes in Victoria and New South Wales so as to vest executive powers—in addition to their advisory powers—in the bodies charged with the administration of the Act<sup>83</sup>. The Clean Air Council is said to be properly concerned with broader policy matters, and the list of members suggested includes a representative of urban planning authorities as under the Western Australian legislation.<sup>84</sup> To assist the Director and the Clean Air Council in their respective duties it is recommended that a Scientific Advisory Committee be established along the lines of that of Western Australia.<sup>85</sup>

These recommendations regarding administrative structure if heeded would lead to the formation of more effective State legislative schemes. They largely coincide with the more sophisticated State and local schemes in the United States which have been designed to deal with severe pollution problems and have met with considerable success.<sup>86</sup>

The Report goes on to deal with the role of municipal authorities in the implementation of the scheme. It describes them as being best utilized by the Director in assisting in the recording of air quality and pollution emission measurements and in the channelling of local complaints to the central authority.<sup>87</sup> There does not seem to be any suggestion that they take a more responsible role in enforcement. This attitude seems to fall somewhere between that of the delegation of some authority to local councils in Victoria and New South Wales, and the Queensland and Western Australian practice which relies wholly on the central authority for enforcement and implementation of the legislation and regulations.<sup>88</sup>

<sup>80</sup> *Ibid.* paras 181-4.

<sup>81</sup> *Ibid.* paras 181-7.

<sup>82</sup> *Ibid.* paras 153 and 155.

<sup>83</sup> Vic. s. 10, N.S.W. s. 36.

<sup>84</sup> W.A. s. 8(4)(c).

<sup>85</sup> W.A. ss 20 and 21.

<sup>86</sup> See for instance, California Health and Safety Code, s. 24350 ff. commented on in Chass and Feldman, *op. cit.* 360 and for a general description of various United States legislative measures against air pollution see 14 *International Digest of Health Legislation* 187, 122.

<sup>87</sup> Para. 181.

<sup>88</sup> *Cf.* Vic. s. 6, N.S.W. ss 18-20, Qld ss 13, 16; W.A. s. 17 and see also T.A.N. 68 *supra*.

The role of the municipal authority has been for some time a source of disagreement between various factions. The Queensland Director of Air Pollution Control, Mr A. Gilpin, is opposed to the delegation of any responsibility under the legislation outside the relevant central organization. He has said that with few exceptions it is a futile gesture to leave or delegate such duties to local authorities in Australia and he has pointed out that there is no recognized qualification or course for air pollution control officers in Australia. In Britain, a substantial proportion of the inspectors who implement anti-pollution legislation hold a diploma in air pollution control issued after an examination by the Royal Society of Health.<sup>89</sup> On the other hand, Mr N. Hawthorn, Chief Inspector for the City of Williamstown, has repeatedly maintained that local officers are both capable of competent action and interested in carrying it out, and that local bodies are efficient additions to the manpower available for enforcement of regulations with the co-operation of the relevant central agency and its technical resources.<sup>90</sup>

The New Zealand Committee of the Board of Health on Air Pollution which made its report in August 1970 discussed these matters in close detail.<sup>91</sup> Its recommendations broadly support the proposals for administrative structure suggested above while noting that no Australian State legislation is unqualifiedly appropriate because none extend to domestic sources and all are based on a larger measure of central organization control than acceptable in New Zealand.<sup>92</sup> It recommends that the Queensland Clean Air Act be used as a basis for suitably modified legislation but concludes that for New Zealand there is no alternative but to rely on complete co-operation between the central government agency with its technical resources and local municipal officers made largely responsible for implementation of control. This integration of local and central action, it is said, is essential to a realistic and efficient approach to the problem of air pollution control. It is recognized that this degree of integration represents quite a new approach and that it might involve problems arising mainly out of the dual responsibilities of the municipal officers.<sup>93</sup>

Clearly the exact role of local municipal officers in such a scheme ought to depend to some extent on their capabilities and technical qualifications and the conditions of local authorities in each State may dictate particular arrangements to be made in appropriate cases. However, delegation of responsibilities for enforcement to local authorities is unlikely

<sup>89</sup> Gilpin, 'Clean Air Legislation in Australia'. Paper presented at Second International Clean Air Conference, Washington D.C., U.S.A. December 1970.

<sup>90</sup> Hawthorn, 'Local Government and Air Pollution Control'. Paper presented to the Clean Air Society of Australia and New Zealand, May 1968; *Evidence given before the Senate Select Committee on Air Pollution* 1701, 1705.

<sup>91</sup> *New Zealand Board of Health Report Series* (1970) 15.

<sup>92</sup> *Ibid.* paras 7-10.

<sup>93</sup> *Ibid.* paras 8.5, 8.6 and 8.7.

to prove effective if they are in fact overburdened, unqualified or uninterested in air pollution control, or if they are subject to pressures from local interest groups. The recommendations of the Senate Select Committee seem to strike a happy balance between local and central responsibilities. They may need re-assessment in the future if, for instance, technical courses specifically designed for air pollution control officers become available, the budgets allotted to the clean air divisions either grow or shrink substantially necessitating a different allocation of manpower, or some fundamental policy change regarding local government takes place. If any of these occur then the role of the local officer may take a new dimension, perhaps along the lines of the New Zealand approach or away from this towards total independence from local officers for enforcement.

The last major recommendations of the Senate Select Committee are for those States which do not have a system of licensing scheduled premises to institute such a system and set licence fees on the scales adopted in New South Wales and Queensland<sup>94</sup> and that legislation in all States should be extended to cover all sources of pollution.<sup>95</sup> These suggestions are soundly based on overseas experience and, as has already been pointed out, are two of the major characteristics of an efficient preventative system of legislative control.<sup>96</sup> The licensing-fee system provides a source of finance for the control bodies, as well as a method of control which allows for the supervision of instalment and operation of plant through the procedures of conditional licensing. It also allows for adjustments to be made by altering the conditions attached to licences so as to keep pace with technical developments.

The final comment on State legislation and administration made by the Senate Select Committee concerns the policy of co-operation between industry and enforcement officers which is apparently uniformly practised. It is noted and applauded that all States emphasize compliance through persuasion and co-operation based on a sensible appreciation of the difficulties faced by many plant operators complying with prescribed standards rather than through coercive penal measures.<sup>97</sup> While it is of course reasonable to expect there to be some unavoidable delays in arranging for compliance, and that resort should not be too lightly had to the penal clauses, it is no less reasonable to expect that legislation once proclaimed is liable to be properly enforced so as to achieve its aim. It seems that if some real improvement is to be made in standards of air quality then a more forceful attitude to enforcement of regulations is necessary.

<sup>94</sup> Commonwealth of Australia, *op. cit.* para. 181(6), see T.A.N. 53.

<sup>95</sup> *Ibid.* para. 181(8).

<sup>96</sup> T.A.N. 74. See also *New Zealand Board of Health Report Series* (1970) 15, paras 7.21, 7.46-7.53.

<sup>97</sup> Commonwealth of Australia, *op. cit.* paras 185 & 186.

No comment was made by the Report on the penalties prescribed for offences under the various Acts and regulations. The upper limit of a fine is fixed at \$400 for offences against the Victorian, New South Wales and Queensland Acts.<sup>98</sup> Fines on this scale can hardly be seriously considered as effective deterrents to offenders operating plant of the size and economic significance of most scheduled premises and many unscheduled sources of pollution. A realistic scale of penalties should bear some relationship to the cost to the occupier of preventing or abating offensive emissions and should reflect the seriousness of the continuing damage suffered by the community. The New Zealand Report suggested that fines of up to \$2500 and \$200 per day for continuing offences may well be required, and pointed out that high potential fines are effective in inducing compliance even if rarely imposed.<sup>99</sup>

## 6 THE ENVIRONMENT PROTECTION ACT 1970

In December 1970 the Victorian Parliament passed the *Environment Protection Act* with the objective of providing for the integrated and comprehensive management and conservation of the environment from all sources of unnatural waste. The provisions of the Act setting up the various administrative bodies were proclaimed on 15 March 1971 and it is expected that the remaining provisions will be brought into force within twelve months. It is still unclear exactly how the Act will be reconciled with existing anti-pollution legislation. It is clear, however, that it cannot be left out of account in a discussion of Australian legislation in this field, as it represents a radical approach to pollution control and conservation of the environment in Australia.

Briefly, the Act establishes an Environment Protection Authority of three charged with the administration of the Act and with wide powers and duties regarding its implementation,<sup>1</sup> a Council of seventeen members representing various relevant interests and expertise with advisory functions<sup>2</sup> and an Appeal Board comprising a barrister and solicitor and two persons with experience in environmental control.<sup>3</sup> Provision is made for the declaration of a 'state environment protection policy' which will establish a foundation and frame of reference for the direction of those bodies charged with the implementation of the Act.<sup>4</sup> The main regulatory thrust of the Act is the requirement that after the commencement of the relevant sections all sources of waste must be licensed to discharge into the environment.<sup>5</sup> Fees payable for the issue of a licence are limited to a

<sup>98</sup> See T.A.N. 43, 52 and 73 *supra*.

<sup>99</sup> *New Zealand Board of Health Report Series* (1970) 15, para. 7.96.

<sup>1</sup> Ss 5, 6, 13(1)(2).

<sup>2</sup> Ss 5, 7, 13(3).

<sup>3</sup> Ss 5, 8, 13(4).

<sup>4</sup> Ss 16-9.

<sup>5</sup> S. 20.

maximum of \$5000<sup>6</sup> and the penalty for failure to comply with licensing requirements is \$5000 (maximum) and \$200 per day for continuing offences.<sup>7</sup> The definitions of terms such as 'waste', 'environment' and 'pollution' are very wide and exhaustive.<sup>8</sup> Separate parts of the Act deal with 'clean water', 'clean air', the control of solid wastes and soil pollution, noise and litter. They add specific offences to the general licensing provisions of the Act.

If the Environment Protection Act is implemented and enforced in the spirit in which it was framed its impact will be great and far-reaching although it may be some time before its effect can be scientifically evaluated. It must be recognized, however, that the magnitude of the task of providing for a co-ordinated and comprehensive regulation of all forms and sources of pollution and conservation of the environment may involve problems which could delay its implementation or present virtually insurmountable difficulties of enforcement. The need for such an approach has been noted by both the Senate Select Committee<sup>9</sup> and the New Zealand Board of Health,<sup>10</sup> and similar legislative schemes have been adopted elsewhere.<sup>11</sup> It is to be hoped by all who are concerned with the need for a realistic conservation policy that the Environment Protection Act will survive whatever birth-pangs are in store and that it will be only the first of a series of similar provisions taking effect throughout Australia.

## 7 CONCLUSION

Current clean air legislation in Australia needs revision and expansion if any real progress is to be made in air quality control. This is indicated both by the findings of the Senate Select Committee concerning the lack of significant improvement in air pollution measurements throughout the country and by the growing concern of the public for measures to be taken to conserve the environment and its natural resources.

The failure of the Clean Air Acts to result in significant improvement is due in part to defects in their approach. None covers all sources of pollution and none provides for penalties which bear any real connexion with the magnitude of the offences or the profits initially derived from compounding them. The disarray of approaches between the States results in a fragmented attack on a problem which is of national concern.

<sup>6</sup> S. 24.

<sup>7</sup> S. 27.

<sup>8</sup> S. 4; *e.g.* "waste" includes any matter prescribed to be waste and any matter whether liquid solid gaseous or radio-active, which is discharged emitted or deposited in the environment in such a volume constituency or manner as to cause an alteration of the environment'.

<sup>9</sup> Commonwealth of Australia, *op. cit.* paras 220 & 221.

<sup>10</sup> *New Zealand Board of Health Report Series* (1970) 15, paras 8.8-8.11.

<sup>11</sup> See *e.g.* Brazil, *Diario Oficial* Section 1, Part 1, 28 February 1967, No. 40 2480-1, 19 *International Digest of Health Legislation* 723; and Philippines, 60 *Official Gazette* No. 45, November 1964, 7345-52, 18 *International Digest of Health Legislation* 700.

The rôle of the Commonwealth as a co-ordinating and unifying force has too long been ignored.

The complex of sociological and economic factors which must be taken into account if a realistic policy of conservation is to be formulated and implemented involve a fundamental reappraisal of priorities throughout the community. This task is one of considerable proportions and carries significant and far-reaching implications. It should not be avoided or delayed on these grounds, but on the contrary should be begun as soon as possible.

The implementation of the recommendations of the Senate Select Committee, plus a revision of penalties and enforcement policies, would improve the efficiency of the legislative schemes throughout the States. The possibility of meaningful Commonwealth participation in air quality control measures should be seriously considered by both the States and the Commonwealth. Improved State schemes with a degree of Commonwealth aid are necessary to effectively control growing air pollution. It may serve only to keep pace with the driving force of material progress which is such a fundamental characteristic of western culture. Perhaps this is all that can be expected. However the passage of the Environment Protection Act may indicate an awareness on the part of the government of Victoria of the defects in the existing legislation and of the need for a more fundamental and broader based legislative scheme. If it is successfully implemented and effective in its operation it would provide further proof of the inadequacies of the stop-gap and superficial nature of existing fragmented legislation.