

Title	Industrial Research and Development Incentives Act - Australian Industrial Research and Development Incentives Board - Report - Year - 1984-85
Source	Both Chambers
Date	27-11-1985
Parliament No.	34
Tabled in House of Reprs	27-11-1985
Tabled in Senate	27-11-1985
Parliamentary Paper Year	1985
Parliamentary Paper No.	431
System Id	publications/tables/papers/HPP032016000868

Industrial Research and Development Incentives Act - Australian Industrial Research and Development Incentives Board - Report - Year - 1984-85

The Parliament of the Commonwealth of Australia

AUSTRALIAN INDUSTRIAL RESEARCH AND DEVELOPMENT INCENTIVES BOARD

Annual Report

1984-85

Presented 27 November 1985 Ordered to be printed 28 November 1985

Parliamentary Paper No. 431/1985

Australian Industrial Research and Development ___ Incentives

Board

Annual Report 1984-85

Australian Industrial Research and Development

Board

Annual Report 1984-85

Australian Government Publishing Service Canberra 1985

© Commonwealth of Australia 1985 ISSN 0728-6635

Printed by CPP Pty. Ltd. T/as Canberra Publishing and Printing Co., Fyshwick, A.C.T.

Senator the Hon John Button Minister for Industry, Technology and Commerce Parliament House
Canberra ACT 2600

Dear Minister

I am pleased to provide you with a report of the activities of the Australian Industrial Research and Development Incentives Board for the year ended 30 June 1985. As I foreshadowed in my introduction to the 1983-84 Annual Report, this, my first full year as Chairman, has been both interesting and challenging. Not least of the changes has been the transfer of our responsibility from the Ministry of Science and Technology to the Ministry of Industry, Technology and Commerce. Whilst that change has not met with universal approval, it has provided a much more effective location for the Board. With the appointment of the Hon Barry O Jones as the Minister Assisting yourself, the Board has found itself in the most fortunate circumstance of being responsible to yourself, thereby being much more closely associated with industry policy, and working with, and for a number of important matters reporting to, the Minister for Science. Maintaining both formal and informal links with the Minister for Science has ensured that, at least from the point of view of the Board, the most important, indeed inextricable, links between science and technology are readily preserved.

Whilst 1984-85 has been particularly eventful, the central issues have been the tax incentives scheme, with effect from 1 July 1985, and the Board's own review of its activities. Both matters will profoundly affect the manner and extent to which government will encourage research and development in the future. In order to best advise government on whether it should proceed with the Australian Industrial Research and Development

Incentives Scheme (AIRDIS) beyond 30 June 1986, the Board has conducted a quite extensive survey of the Australian research community and industry. Without pre-empting the Board's advice, it should be said that the Australian research and development constituency, in its response to a questionnaire and at public meetings held in Canberra, Sydney, Brisbane, Melbourne, Adelaide and Perth, is unanimous in the view that government must continue to provide R&D incentives, and that such incentives should be both tax and grant based. On the question of the efficacy of AIRDIS, the Board has had it put in the strongest, but not unanimous, terms that the commencement grant scheme does not represent the most effective use of approximately \$15 million per annum and that the project grants scheme, whilst sound in concept, is deficient because of its specific exclusions and failure to deal explicitly with design, technology, and problems associated with the market research, marketing and management elements of the innovation cycle.

In short, there is now sufficient evidence before the Board to suggest that, if the Government is to provide R&D incentives for those very many organisations unable to take advantage of the tax incentives scheme, effective use of funds allocated for that purpose is unlikely to be achieved by a continuation of AIRDIS in its present form beyond

30 June 1986. It would also seem unlikely, both from the Board's experience and information provided by industry and the research community, that the wider goal of effective government stimulation and support of industry will be achieved with the current plethora of supporting agencies both Federal and State.

Whilst on the issue of effective, rather than merely efficient, delivery of government programs it is important to emphasise that, in terms of its administration, the Board has once again faced difficulties and frustrations that leave efficient administration an elusive goal and effective management an empty phrase. In 1983-84 the Board, through lack of

staff, was faced with the unpalatable dilemma of either failing to meet the demands of applicants in a timely fashion or inadequately evaluating and monitoring the progress and effectiveness of ongoing projects. With considerable reluctance and concern, the Board

chose the former solution and neglected the collection of information essential to its effective operation. That decision was taken with the express caveat that the integrity of the Board would be threatened by that decision and seriously impaired if such a dilemma were to be resolved in that manner again.

Given that the Board has little or no flexibility in the way it can spend its various administration monies and that it must rely on the Department, which in turn must rely on the Public Service Board to set staffing priorities and allocate staff, it is perhaps unsurprising that those 1983-84 staffing problems were not resolved in 1984-85. It is equally unsurprising that the Board, with even more reluctance and some chagrin, once

again proceeded with insufficient information on the success or otherwise of projects in progress. Put differently, existing organisational, funding and staffing arrangements are an impediment to the effective delivery of AIRDIS funds. To conclude these brief concerns about the wider and too often neglected issue of AIRDIS effectiveness, it is appropriate that I draw attention to and compliment Board staff. As a result of the dedication, cheerfulness (often in difficult circumstances), enterprise and teamwork of the staff, 1984-85 was not merely busy and challenging; it has been an important personal learning experience and a source of great personal satisfaction.

In the same vein and for the same reasons, I take this opportunity to express gratitude and express thanks to my Board colleagues for their support and the considerably increased commitment they have given to Board duties in the past years. On 30 June 1984 Graham H Raymond, Frank R Townsend and Harold Wexler OBE retired from the Board. The Board and staff take the opportunity provided by this 1984-85 Annual Report to offer thanks for the long and dedicated service provided to the Board by those Members.

Yours sincerely

KEVIN J FOLEY CHAIRMAN

1984-85 AT A GLANCE

• total of 1300 commencement grant applications received in respect of IR&D performed in 1983-84
 • this compares with 1379 received for the previous year • 1013 applications determined • 853 successful applicants received an average payment of \$14 736 • 487 project grant applications received

• this compares with 512 received in 1983-84 • 456 applications determined • 246 agreements entered into with a total commitment of \$46.94 million • 7 public interest projects approved by the Minister, totalling \$5.64 million

• this compares with 6 approved in 1983-84 • total payments were • commencement grants \$ 16 261 722

• project grants 38 125 967

• public interest funding 9 822 152 • total 64 209 841

• major reviews were initiated into all three components of the Scheme • Price Waterhouse Associates studied the effectiveness of the Scheme in promoting IR&D • the Bureau of Industry Economics reviewed the effectiveness of the public interest

funding program • the Board surveyed its IR&D constituency on the need for, and form of, IR&D incentives • on 29 May 1985, the Minister announced the Government's 150 per cent tax

deduction scheme for R&D with concessions to apply from 1 July 1985.

v

Australian Industrial Research and Development Incentives Scheme Organisation at 30 June 1985

Minister for Industry, Technology and Commerce Senator the Hon. J. N. Button

Australian Industrial Research and Development Incentives Board Chairman Dr K. J. Foley

Australian Industrial Research and Development Incentives Advisory Committee Chairm an

B. J. Scanlen

Industrial Research and Development Branch Department of Industry, Technology and Commerce Senior Assistant Secretary J. A. Clark

Assistant Secretary B. Smith

Administration Director J. G. Vincent

Policy Director J. McKenna

Technology Division Department of Industry, Technology and Commerce First Assistant Secretary

A. Bain

Assistant Secretary Technology Development Branch P. Haddon

technical Standing Committee---- Technical "Chairman Director

M. S. Farrell A. Bannister

State Offices of the Department of Industry, Techno! and Commerce

_Evaluation Director B. J. Walker

Melbourne Office Assistant Director B. Heasly

Sydney Office For addresses, see page 63

Assistant Director R. Sewell

CONTENTS

CHAPTER 1 INTRODUCTION..... 1

Objective; Arrangements; Definition; Funding; Change in Administrative Arrangements

CHAPTER 2 THE BOARD..... 2

Membership; Functions of the Board; Board Committees; Technical Standing Committee; Staff of the Board; Acknowledgements

CHAPTER 3 STATISTICAL AND FINANCIAL SUMMARY, 1984-85 5

Commencement Grant Applications; Project Grant Applications and Agreements; Appropriation and Disbursement; Administrative Costs

CHAPTER 4 OTHER ACTIVITIES DURING 1984-85 8

Legislative Changes; Submissions by the Board; Reviews of the Scheme; New Tax Incentive for Research and Development; Public Relations; Seminars and Speeches; Board Meetings; Automatic Quarterly Payments; Grant for Graphic Design; Complaint to the Commonwealth Ombudsman; Administrative Appeals Tribunal; Legal Action;

Freedom of Information Act 1982; Recovery of Grant Payments

CHAPTERS COMMENCEMENT GRANTS..... 12

Objective; Eligibility Criteria; Operational Statistics

CHAPTER 6 PROJECT GRANTS 14

Objective; Parameters of Assistance; Assessment Criteria; Operational Statistics; Cumulative Statistics; Analysis of Completed Projects; Ministerial Approvals to Exceed Board Delegations; Support for Key Technologies; National Biotechnology Program

CHAPTER 7 INDUSTRIAL RESEARCH AND DEVELOPMENT ON BEHALF OF THE COMMONWEALTH " SECTION 39 (PUBLIC INTEREST) PROJECTS 22

Arrangements; Australian Industrial Research and Development Incentives Advisory

Committee; Public Interest Projects; New Projects; Continuing and Completed Projects

CHAPTER 8 TECHNICAL STANDING COMMITTEE AND APPROVAL OF PROFESSIONAL INSTITUTES, EMPLOYEES AND RESEARCH ORGANISATIONS 28

Technical Standing Committee; Recognised Professional Institutes; Approved Employees; Approved Research Organisations

Appendix A Appendix B Appendix C

Appendix D Appendix E

Appendix F Appendix G Appendix H

Grant Payments from 1984" 85 Funds, Commencement Grants..... 30 Grant Payments from 1984" 85 Funds, Project Grants..... 41

Project Grant Payments from 1984" 85 Funds by Class of Industrial Activity (Classified by the International Patent Classification System) 46 Project Grant Agreements signed in 1984" 85..... 50

Project Grant Agreements signed in 1984" 85 by Class of Industrial Activity (Classified by the International Patent Classification System) 55 Current Ministerial Directions..... 58

Recovery of Grant Payments..... 61

Addresses..... 63

CHAPTER 1 INTRODUCTION

The Australian Industrial Research and Development Incentives Board is established under the Industrial Research and Development Incentives Act 1976. The Act forms the legislative authority for the Australian Industrial Research and Development Incentives Scheme.

Objective

The objective of the Scheme as defined in the Act is to promote the development and improve the efficiency of Australian industry by encouraging industrial research and development in Australia in matters relating to science and technology.

Arrangements

The Board's principal avenue of support for this objective is the provision of three types of financial assistance:

Commencement grants to encourage companies to develop a basic capability for research and development; Project grants to assist companies with established research and

development facilities to undertake specific projects;

Public interest funding to enable arrangements to be made for projects deemed to be in the public interest to be undertaken on behalf of the Commonwealth.

Grants are available to companies involved in manufacturing, mining, on-site construction or computer software production. Grants may also be paid to research organisations which undertake industrial research and development on behalf of two or more corporate clients.

Definition

Industrial research and development (IR&D) is defined for the purposes of grant support as:

systematic experimentation or analysis in a field of science or technology which is directed to acquiring knowledge and/or applying knowledge to devise or develop new or substantially improved products or processes.

Funding

The Scheme is funded by Budget appropriations, with an annual limit for new commitments. For 1984-85, appropriations ultimately totalled \$67 451 000. This represented a 7.4 percent decrease in real terms over the 1983-84 appropriation. Total expenditure

under the Scheme was \$64 209 841. The limit for new project grant commitments over the year was set at \$44,555 million which was later reduced to \$44,395 million as a consequence of a reduction made during the year in funds available for project grants.

Change in Administrative Arrangements

With the change in Administrative Arrangements on 13 December 1984 responsibility for administration of the Act transferred from the Minister for Science and Technology to the Minister for Industry, Technology and Commerce.

CHAPTER 2 THE BOARD

Membership

Section 9 of the Act provides that the Board comprise a part-time Chairman, an officer of the Department dealing with matters under the Act and not less than six or more than ten other part-time Members. Board Members during the year were

Chairman Dr K J Foley Management consultant. Part-time member of the Executive, Commonwealth Scientific and Industrial Research Organization.

Members Prof. B D O Anderson Head, Systems Engineering, Research School of Physical Science, Australian National University.

Mr J H Andrews, A.O. Principal, John Andrews International Pty Ltd. Chairman, Design Arts Board of the Australia Council.

Dr C K Coogan Executive Scientist, Commonwealth Scientific and Industrial Research Organization. Chairman, Australian Scientific Industry Association.

Mr E W B Eddy Retired Group General Manager, A Goninan & Co Ltd.

Dr W J Howarth Managing Director, Mineral Control Instrumentation Pty Ltd. Director, Coal Scan Pty Ltd.

Mr W A Kricker Managing Director, Australian Consolidated Hosiery Pty Ltd.

Mr P K MacGregor Principal, P K MacGregor and Associates.

Dr P O Miller Principal, Miller Milston and Ferris. Member, Design Arts Board of the Australia Council.

Sir Gustav Nossal, C.B.E Director, The Walter and Eliza Hall Institute of Medical Research. Professor of Medical Biology, University of Melbourne.

Dr A A Pucci Managing Director, Australian Monoclonal Development Pty Ltd.

Mr P J Redlich â€” Senior Partner, Holding Redlich & Co.

Executive Member â€” Mr J A Clark â€” Senior Assistant Secretary, Industrial Research and Development, Department of Industry, Technology and Commerce.

Mr Andrews retired from the Board on 15 May 1985. The Chairman and other Members of the Board wish to record their appreciation of Mr Andrewsâ€™ contribution to the Board.

Mr Eddy and Dr Miller were appointed to the Board on 5 June 1985.

2

Functions of the Board

Under the provisions of the Act the Board:

â€” authorises payments of commencement grants; (Section 23)

â€” may enter agreements with companies in relation to the payment of grants in support of specific projects; (Section 30)

â€” makes arrangements for projects which are to be undertaken on behalf of the Commonwealth in the public interest. (Section 39)

Section 8A of the Act confers additional functions on the Board. These are to:

â€” establish effective communication with industry in order to encourage IR&D in Australia; â€” with the grant applicantâ€™s consent, provide technical advice on a companyâ€™s IR&D to potential investors; â€” co-operate with departments and authorities of the Commonwealth with related

functions; â€” provide advice to the Minister on incentives for industrial research and development.

The Minister has power under the Act to give Directions to the Board in relation to policies and practices which the Board must follow. Current Directions are detailed at Appendix F. There were no new Directions issued by the Minister in 1984â€” 85.

Board Committees

A number of Board Committees have continued to operate during the year dealing with a range of matters, including management systems, public relations and legislation. At the beginning of June 1985, five members of the Board commenced a three month trial of an Information Technology Sub-Committee using a teleconferencing facility to determine the feasibility and advantages of, and necessary procedures for, assessing information technology project grant applications by this system.

Technical Standing Committee

The Technical Standing Committee is established under Section 19A of the Act. The Committee comprised the following membership during the year:

Chairmen â€” Captain G P Hood â€” Retired (term as Chairman expired on 31 December 1984).

Mr M S Farrell â€” Retired (term as Chairman commenced on 23 January 1985).

Members â€” Mr D R L Callow â€” Retired.

Mr N P Clark â€” Manager, Research and Technology, Varian Techtron Pty Ltd (appointed to the Committee on 4 June 1985).

Dr J R Dunstone â€” Assistant Principal, Canberra College of Advanced Education (resigned from the Committee on 31 December 1984). Mr D Smith â€” Retired (appointed to the Committee on 21 November 1984).

Ms H Vorrath â€” Lecturer, Chisholm Institute of Technology (appointed to the Committee on 10 December 1984).

The function and activities of the Committee are treated separately in Chapter 8.

3

Staff of the Board

The Public Service operative staff assisting the Board was sixty-seven at 30 June 1985. Central staff totalling forty-five form the IR&D Branch of the Department of Industry, Technology and Commerce and are organised into the following areas of responsibility:

Policy

Technical

Evaluation

Administration

â€” provide policy support, principally under the terms of Section 8A of the Act; â€” assess and report on the technical and commercial merit of grant applications and monitor progress of approved projects and

achievements under the Scheme; â€” verify company expenditure estimates, investigate company eligibility and claims for payment for both commencement and project grants and monitor commitment to new projects; â€” arrange grant payments, manage information and control systems

and provide a public relations service.

The other staff are located in the State offices of the Department and provide services direct to the Board.

Acknowledgements

The Board thanks the members of its assisting staff for their continuing efforts to achieve investigation and assessment of grant applications and the preparation of submissions for Board consideration and decision. It also thanks the members of the Technical Standing Committee for their recommendations and advice during the year and the former

Department of Science and Technology and the Department of Industry, Technology and Commerce for administrative support.

4

Grant payments totalling \$64 209 841 were made during the year. This was a decrease of \$1 729 260 (2.62 per cent) from the 1983-84 total of \$65 939 101. Commencement grants were paid to 1017 companies and project grants to 425 companies.

Commencement Grant Applications

A total of 1300 commencement grant applications were received in respect of industrial research and development costs incurred in 1983-84, seventy-nine less than the 1379 applications received for the previous year. Chapter 5 provides details.

Project Grant Applications and Agreements

A total of 487 project grant applications were received in the year, twenty-five less than the 512 received in 1983-84. New project grant agreements signed totalled 246, thirty more than the previous year. Chapter 6 provides details.

CHAPTER 3 STATISTICAL AND FINANCIAL SUMMARY, 1984-85

Appropriation and Disbursement

Expenditure Appropriation

\$ \$

Commencement grants for IR&D undertaken in 1979- 80

1980- 81

1981- 82

1982- 83

1983- 84

16 944 50 797 146 442 3 477 380 12 570 159

16 261 722 17 765 000

Project grants (a)38 125 967 (6)38 286 000

Sub total 54 387 689 56 051 000

Public interest funding (Department of Industry, Technology and Commerce) Payments under agreements

and related expenses

9 822 152 11 400 000

Total 64 209 841 67 451 000

(a) An amount of \$1868 was incorrectly refunded by the Department of Industry, Technology and Commerce to appropriation for this item; this is reflected in the Appropriation Bill (No 1) 1985-86. (b) The funding for project grants was reduced to \$38 126 000 during the year.

5

Project Grant Applications Received

500

Applications

480 : 460 440 42(1 t 1

380 360 340.

(N r n

OO o o

â€”xh o o

un o o

â€” <

o o o o

Ï·Ïÿ o o

xfÂ· o o

Commencement Gran A p p lic a tio n s Receivec

135(1

|

1300

1250

1 2 0 0

1150

1050

1000

>50,---, OO C4 oo

co Â°?

0 0

un CO

o oo oo

C4 oo

m oo

'xh oo

Project Granl Applications Delvri ni neil '

^ , 1 â-

â-

C ommvnceiieil (.railI Applications Determined

â€¢ 10)

500 ;; so

450 Â' 0

460 ' ' i â-

440 S ' '.x 1200

420 1150

400 Â· â- 1100

380 1050

1000

'340n L 950 â- |

Project G rant Payments (\$ m)

45

40

15

30

25

20

15

\

10

OO 1

o OG

U L

GO 82-83

-

83-84

III

1984-85

Commencement Grant Payments (\$ m)

20

18 - 1984-85

If,

14

12

10

00

80-81

81-82* [

00 1 (N 00

-

83-84 1

1984-85

Administrative Costs

Costs incurred in administering the Scheme were:

\$ 000

Salary and allowances 1 372

Fees 110

Overtime 24

Travel 215

Consultants 13

Printing and publishing 42

Computer services 5

Incidentals 26

Total direct administrative costs 1 807

7

CHAPTER 4 OTHER ACTIVITIES DURING 1984-85

Legislative Changes

During the year, the definition of "industrial research and development" in section 4(1) of the Act was amended to enable substantially improved software development to be eligible for project grants, as is the case for other forms of IR&D. Section 39(1) of the Act relating to public interest funding was also amended to provide for this type of project to include "industrial research, industrial development or industrial research and industrial development". The effect of this amendment is to clarify and put beyond doubt that Section 39 projects may have an industrial development component.

Submissions by the Board

The Board made submissions to the Industries Assistance Commission (IAC) and to the Australian Science and Technology Council (ASTEC) during 1984-85. The IAC invited comments relating to its inquiry into the "Longer Term Aspects of the Chemicals and Plastics Industry". This inquiry was a pacesetter in a new approach to advising on support for industrial development in Australia.

ASTEC was asked by the Prime Minister to report on "Public Investment in Research and Development in Australia". As requested by ASTEC, the Board's submission concentrated on the rationale and objectives of government funding and performance of R&D and the implications of this for government policies and the CSIRO. The Board's recommendations related, inter alia, to:

• practical measures to facilitate industry - CSIRO collaboration; • enhancing CSIRO's role in policy development; and • enhancing CSIRO's role in identifying technologies on which future growth may be based.

Reviews of the Scheme

Reviews were initiated into all three components of the Scheme:

• Price Waterhouse Associates were awarded a consultancy to assist in the evaluation of the effectiveness of the Scheme in promoting IR&D as well as the efficacy of increasing IR&D to promote economic growth. This study was co-ordinated by the Department of Industry, Technology and Commerce; • the Bureau of Industry Economics started a review of the effectiveness of the public

interest funding program; the Board undertook a survey of the IR&D constituency to determine its views on the need for further IR&D incentives and the forms those incentives ought to take. All three reviews are due for completion in September 1985.

The survey by the Board differs from the other two reviews in that these were ex post facto analyses concentrating on firms performing R&D, whilst the Board's survey was forward looking. Respondents to the Board's survey represented a cross-section of the IR&D constituency, including representative samples of companies from various industry sectors ranging from very small to very large; industry associations; consultants; academics; Commonwealth, State and Northern Territory Government Departments; as well as professional, financial and learned institutions. The survey was conducted in three stages.

In stage one, comments were sought in November 1984 from about eighty companies, organisations and government departments on pertinent issues. An excellent response was received.

8

Based on this response, the Board prepared a discussion paper and structured questionnaire for stage two. These were sent in early April 1985 to 480 companies, organisations, individuals and government departments. A total of 229 responses were received in time for analysis of the specific questions raised. In addition, many respondents provided a large volume of very useful and thoughtful comments.

Under stage three, respondents to stage two who expressed an interest were invited to meetings held in all mainland capital cities. Three meetings were held in June in Canberra, Brisbane and Sydney and a further three meetings have been arranged for Melbourne, Adelaide and Perth in July 1985. The meetings were widely advertised in the press and amongst industry organisations to encourage all members of the IR&D constituency to participate in the process of developing new initiatives. Participants were

advised of the significant findings from the responses to stage two and then the meeting was opened to discussions from the floor. The response to date has been impressive. Discussions were lively and many felt so strongly about the issues that they spent considerable time putting their views on paper.

This survey will be a major influence on the Board in developing options to recommend to the Minister on the future of R&D incentives in Australia.

New Tax Incentive for Research and Development

On 29 May 1985, the Minister announced details on the Government's promised 150 per cent tax deduction scheme for research and development. The concession is to apply from 1 July 1985. The Board welcomes this initiative to encourage more research and development in Australia and has included in its discussions with its IR&D constituency consideration of the potential impact of the new scheme.

Public Relations

During the year, the Board continued a range of public relations activities aimed at increasing public awareness of the Scheme. In May, it staged an exhibition in Melbourne on Victorian companies' IR&D supported under the Scheme. This exhibition was designed to complement an exhibition on Victorian inventions at the Museum of Science and a two day seminar by the Australian Scientific Industry Association, all part of Victoria's sesquicentennial celebrations. The Board also staged a display at Matpak '85, an exhibition on materials handling and packaging, in Melbourne in June.

Public relations staff assisted companies during the year in the preparation of media releases on projects assisted under the Scheme and provided assistance to several industry publications in the preparation of articles on the Scheme. In addition, the Chairman, Dr Kevin Foley, has travelled extensively throughout

Australia meeting with representatives of industry bodies, Commonwealth and State Government Departments and Authorities and other bodies with an interest in IR&D, encouraging awareness of the Scheme.

Seminars and Speeches

As in past years, Board Members and staff addressed industry associations and other interested groups. The policy of participation in relevant seminars and conferences was actively intensified to increase awareness of the Scheme amongst industry opinion leaders. The results were manifested in greater press coverage of the Scheme, particularly in trade and professional journals. Listed below are some of the forums addressed during the year.

• Australian Tertiary Institutions Consulting Companies Association, Wollongong
• Australian Cereal Chemistry Conference, Melbourne

9

• Design Institute, Institute of Management, Melbourne
• Institution of Engineers, Bundaberg
• Institution of Engineers, Townsville
• International Polymer Symposium, Melbourne
• Metals Congress, Australasian Institute of Metals, Ballarat
• Patents and Innovation Policy Seminar, University of Sydney
• Queensland Confederation of Industry, Brisbane
• Smelting and Refining Operators Symposium, Townsville
• Society of Automotive Engineers Australasia, Melbourne

Board Meetings

The Board continued the practice, begun in 1982-83, of conducting a large proportion of its meetings at centres other than Canberra to afford the opportunity for Members to visit establishments performing grant-supported industrial research and development. Functions at which Members met with industry leaders were arranged, with the help of local development organisations, to coincide with these meetings.

The Board met eleven times during 1984-85, usually on the third Tuesday of each month, as follows: 17 July 1984 Sydney

21 August 1984 Canberra

17-18 September 1984 Newcastle 16 October 1984 Melbourne

19-20 November 1984 Albury 18 December 1984 Canberra 18-19 February 1985 Launceston 19 March 1985 Melbourne

15-16 April 1985 Sydney

21 May 1985 Melbourne

18 June 1985 Canberra

Automatic Quarterly Payments

The Board introduced automatic quarterly payments for project grants approved from July 1984. The purpose is to give companies security of a cash flow to support their projects. The system also spreads the Board's expenditure on project grant support more evenly over the financial year.

Eligibility requirements for these payments include adequate financial strength of the company and a prescribed minimum length of duration of the project. Continuation of these payments for each project is subject to close monitoring of progress.

As at 30 June 1985, 119 projects were on this system with a further seven projects eligible subject to company acceptance of an agreement offered by the Board.

Grant for Graphic Design

The Board approached the Design Arts Board of the Australia Council, the Commonwealth Government's arts funding and advisory body, for a grant to engage a graphic designer to prepare a symbol and set of standard applications for the Board's corporate identity.

A grant of \$6500 was approved by the Design Arts Board. Bryce Design Consultants was appointed to undertake the work.

10

Complaint to the Commonwealth Ombudsman

The operations of the Board, as a Commonwealth statutory authority, are subject to the provisions of the Ombudsmans Act 1976. There was one complaint made to the Ombudsman during 1984-85 concerning the Board's handling of a company's project grant agreement. The Ombudsman found that there was no defective administration by the Board or its staff in the handling of the matter.

Administrative Appeals Tribunal

Section 41 of the IR&DI Act 1976 enables companies dissatisfied with decisions of the Board to approach the Administrative Appeals Tribunal for reviews of the decisions in accordance with the general procedures specified in the Act. During 1984-85 the Board was involved in six appeals to the Tribunal: one was determined affirming the Board's decision; one was withdrawn by the applicant; three are subject to preliminary conferences yet to be held and one has had a hearing date set for 9-10 October 1985.

Legal Action

During the year several matters involving two separate grant applicants were discussed with the Australian Government Solicitors and the Australian Federal Police in terms of section 37 of the Act. None had proceeded to prosecution by 30 June 1985.

Freedom of Information Act 1982

Twenty-one requests for information under the FOI Act 1982 were received by the Board in 1984-85. Ten of the requests were granted in full, five were given partial access, one was transferred to the Department, one was deleted because the information did not exist,

one was refused access and three were outstanding at 30 June 1985. The average response time was forty-one days. FOI requests received during the year related mostly to grant applicants' files, in part or in whole, held by the Board.

Requests refused or given partial access related to exempt documents pursuant to sections 38 and/or 45 of the FOI Act. One request for internal review of an FOI decision was received and completed during the year. The request related to decisions of both the Board and the A.I.R. & D.I. Advisory Committee.

The Senior Assistant Secretary and the Assistant Secretary of the IR&D Branch are vested with the authority to grant access to requests. Collection of fees charged for FOI and staff training and development is the responsibility of the Department.

Recovery of Grant Payments

At 1 July 1984 there was \$4094 to be recovered from one company for an overpayment of a commencement grant and \$482 697 to be recovered from sixteen companies whose project grant expenditure fell below the level of advance payments that were agreed. During 1984-85, arrangements were made to recover \$1708 from a further two companies for overpaid commencement grants and \$402 774 from twenty-four companies for project grants.

A total of \$379 610 was repaid during 1984-85. Details of the amounts recovered in 1984-85 and the amounts still to be recovered are given in Appendix G.

11

CHAPTER 5 COMMENCEMENT GRANTS

Objective

Commencement grants are made to encourage firms to establish or develop a capability for industrial research and development.

Eligibility Criteria

Applications must be lodged by 30 September in the financial year following that in which expenditure directly attributable to IR&D was incurred. An extension of time to 30 November is granted where applicants lodge a written request on or before 30 September, however, payment on these applications is not made before 1 July of the following year.

The current legislation provides for 1985-86 to be the last period for which IR&D can be undertaken under the commencement grant component of the Scheme. Companies which have spent less than \$250 000 on IR&D over the eight years preceding the year covered by their first application may receive fifty per cent of eligible expenditure incurred to a maximum of \$40 000 per year for up to five consecutive years. Eligibility expires when a company or group of related companies has received grants totalling \$200 000 or after the elapse of five years.

To qualify for a commencement grant a company must have incurred either eligible salary expenditure or at least \$2 000 in eligible contract expenditure during the grant year. If this condition is met, the company may also claim for expenditure on IR&D plant, prototypes and technical information.

Salary expenditure may be eligible where IR&D is performed or supervised by a full-time employee who has either acceptable professional qualifications or is an Approved Employee (i.e. who is recognised by the Board as having pertinent skills, ability and experience). The amount paid as salary or wages to full-time employees for any cumulative period of twenty or more working days during which they were engaged

virtually exclusively on IR&D is then eligible as salary expenditure. Contract expenditure is the cost of IR&D performed by an Approved Research Organisation on behalf of the applicant company, as explained in Chapter 8 of this report. Grants are payable to all companies which satisfy the eligibility criteria.

Operational Statistics

The following table shows total commencement grant payments made during 1984-85 by location of the companies.

Location	Amount	% of total
New South Wales	\$ 6 655 718	40.93
Victoria	4 393 816	27.02
Western Australia	2 122 009	13.05
Queensland	1 857 410	11.42
South Australia	802 410	4.93
Tasmania	281 635	1.73
Australian Capital Territory	145 474	0.90
Northern Territory	3 250	0.02
Australia	16 261 722	100.00

12

The table below summarises commencement grant processing activity during 1984-85.

Processing status

Received

Grant Outstanding in Total Paid	Nil Outstanding Grant
year at 117184	1984-85
No 1984-85 Grants at 3016/85	payments
\$	
1979-80	16 944
1980-81	50 797
1981-82	17 881 146 442
1982-83	350 230 84 36 3 477 380
1983-84	19 1 281 1 300 853 160 287 12 570 159
1984-85	10 10 10 10

Total 389 1 291 1 680 1 091 255 334 16 261 722

(a) These amounts are additional payments after reconsiderations. No new applications for 1979-80 and 1980-81 were determined during the year. (b) In the 1983-84 Annual Report, an incorrect figure of five outstanding applications appeared. The figure should have been seventeen.

The average payment for IR&D performed in 1984-85 was \$14 736. Amounts of grants paid in 1984-85 and the names of all recipients are set out in Appendix A.

13

CHAPTER 6 PROJECT GRANTS

Objective

Project grants are made to assist companies with established IR&D facilities to undertake projects with definite objectives over a specified period.

Parameters of Assistance

Projects which rate highly against the assessment criteria are offered grant agreements providing for support normally at the level of fifty per cent of actual IR&D costs incurred. Under the Board's delegation a company, or group of related companies, may obtain support for more than one project at a time, with overall commitment limited to \$750 000 per year. An individual project can be assisted for up to five years. The Minister is empowered to approve longer periods, higher annual funding and a greater than fifty per cent level of support.

For projects approved for grant support, eligible expenditures incurred after the date on which a completed application was received by the Board are subject to reimbursement at the agreed rate. Applications may be submitted at any time. Under the current legislation, where the Board enters into agreements for projects which commence before 1 July 1986, it can continue to pay funds up to 30 June 1989.

Assessment Criteria

Applications compete for the available funds and are rated on their merits against criteria specified by the Minister (Appendix F). Projects rating highest are those which apply new technology, involve innovative research and development, aim to produce world leading products or substantial productivity improving processes, and/or which have the potential for significant market returns or cost savings.

Operational Statistics

The following table summarises project grant application processing in 1984-85 compared to 1983-84.

Applications 1983-84 1984-85

Workload Outstanding at start of year Received during year

121 512

633

103 487

590

Processed Approved 330 261

Declined 190 195

Withdrawn 10 22

530 478

Outstanding at end of year 103 112

14

The following table summarises the processing of agreements during 1984-85 arising from approved project grant applications compared with 1983-84.

Agreements 1983-84 1984-85

Workload Outstanding at start of year 25 58

Applications approved during year 330 261

355 319

Processed Agreements finalised 287 246

Applications withdrawn after approval 10 11

297 257

Outstanding at end of year 58 62

The graph which follows compares the monthly distribution of the receipt of project grant applications during 1982-83, 1983-84 and 1984-85. A decline in the third quarter is generally consistent with figures over several years and reflects the normal cycles of business activity.

15

The following table shows project grant payments during 1984-85 by location of the companies.

Location Amount % of total

Victoria

\$

14 859 554 38.97

New South Wales 13 133 860 34.45

Queensland 3 536 900 9.28

South Australia 3 028 174 7.94

Western Australia 2 578 341 6.76

Australian Capital Territory 525 965 1.38

Tasmania 463 173 1.22

Northern Territory 0 0.00

Australia 38 125 967 100.00

The table below shows the number and total value of project grant agreements signed in 1984-85 by location of the companies.

Location Number Amount

Victoria 86

\$

19 298 600

New South Wales 76 13 111 709

Queensland South Australia

38 21

5 102 310 3 912 300

Western Australia 18 3 845 725

Tasmania 4 711 850

Australian Capital Territory Northern Territory

3 0

343 550 0

Australia 246 46 942 044

16

Cumulative Statistics

The status at 30 June 1985 of project grant agreements arranged since the introduction of the Act in July 1976 was:

Signed 1 826

Cancelled 77

Completed 996

Current and/or not finally assessed 753

The relationship between commitment (future grant obligation under agreements arranged) and expenditure (payments in discharge of grant obligation) for 1984-85 was: Commitment at 1 July 1984 \$49 692 741

New commitment 1984-85 \$44 393 912

\$94 086 653

Expenditure 1984-85 \$38 125 967

\$94 086 653

Commitment outstanding at 30 June 1985 \$55 960 686

The relationship between targetted and achieved commitment and expenditure over the life of the Scheme is shown below.

Table showing the relationship between targetted and achieved commitment and expenditure over the life of the Scheme

Table showing the relationship between targetted and achieved commitment and expenditure over the life of the Scheme

Table showing the relationship between targetted and achieved commitment and expenditure over the life of the Scheme

Table showing the relationship between targetted and achieved commitment and expenditure over the life of the Scheme

1984-85 Obligation actually incurred under agreements arranged

1984-85 constant \$ (1984-85)

17

70

1984-85 Obligation actually incurred under agreements arranged

1984-85 constant \$ (1984-85)

1984-85 constant \$ (1984-85) EXPENDITURE limit for payments under new and existing agreements

CZ1 Payments made

1984-85 constant \$ (1984-85)

Analysis of Completed Projects

During the year thirty-six completed projects were assessed. The projects were undertaken by companies with substantially different research and development ability, ranging from companies with modern facilities and highly qualified staff to those with limited facilities and personnel without formal technical qualifications.

The average duration of projects was twenty-eight months and average company expenditure per project was \$173 555. Companies generally underestimated the time required to complete the project and overestimated the project costs. Fifty-two per cent of projects required an extension of time for completion. The average extension required was twelve months. Fifty per cent of projects were underspent by an average amount of \$75 000.

An analysis of the projects assessed in 1984-85 is presented in the following table together with a comparison of those assessed in 1980-81 to 1983-84. The proportion of successful projects has declined significantly since 1980-81, although the smaller number of projects assessed in 1984-85 may also have a bearing on the results. However, the

Board believes the decline is due to the selection criteria requiring a greater emphasis on risk such that high risk projects are now having a much greater chance of being approved.

Result of project 1984-85 1983-84 1982-83 1981-82 1980-81

% % % % %

New product/ process developed 39 49 54 61 63

Further work required 17 24 9 12 12

Project abandoned Product/process not

8 12 12 13 4

commercially successful 36 15 25 14 21

Total 100 100 100 100 100

Number of projects assessed 36 72 83 100 43

Ministerial Approvals to Exceed Board Delegations

The Board's delegation for project grant commitment is limited to fifty per cent of eligible expenditure up to a maximum of \$750 000 per company or group of related companies in relation to any one year. An individual project may be supported for up to five years. The Minister has power under the Act to approve increases to these limits for a

particular company or group. During the year the Minister gave the following approvals in respect of these limits:

increased the rate of grant to sixty-six and two thirds per cent of eligible expenditure in respect of a project submitted by Universal Engineering Development Co Pty Ltd increased the rate of grant to seventy-five per cent of eligible expenditure in respect of a project submitted by D-Tech Pty Ltd increased the rate of grant to seventy per cent for IR&D contracted to the CSIRO,

Monash University and Chisholm Institute of Technology only of a project submitted by Nilcra Ceramics Pty Ltd

19

increased the rate of grant to eighty per cent of eligible expenditure in respect of the last phase of a project submitted by S V Engine Co Pty Ltd increased the rate of grant to one hundred per cent of eligible expenditure in respect of that phase carried out in conjunction with the Queensland Institute of Technology and

sixty per cent of the balance of eligible expenditure in respect of a project submitted by Connellan Nominees Pty Ltd increased the commitment limit for Mount Isa Mines Holdings Ltd Group to \$950 000 for 1984-85 increased the commitment limit for Repco Ltd Group to \$1 200 000 in 1984-85 increased the commitment limit for the Broken Hill Pty Co Ltd Group to \$1 350 000

for 1983-84, to \$1 395 000 for 1984-85 and to \$895 000 for 1985-86 increased the commitment limit for ICI Australia Ltd Group to \$1 160 000 for 1984-85 increased the commitment limit for

Oliver J Nilsen Australia Group to \$990 000 for

1984-85, to \$875 000 for 1985-86 and to \$1 255 000 for 1986-87 and extended support beyond five years for a project of Ego Pharmaceuticals Pty Ltd and extended support beyond five years for a project of B Barber & Sons Pty Ltd.

Support for Key Technologies

A significant feature of Board support for key technologies in 1984-85 is the decrease in grant applications for biotechnology projects and the increase in applications for computer software projects. As can be seen from the following table only nine project grant applications were received for biotechnology projects which compared with twenty-seven applications received in 1983-84.

The number of software applications increased from thirty-four in 1983-84 to forty-four and the approval rate from thirty-five per cent to forty per cent.

Applications Applications Estimated

Key technology approved rejected commitments

Biotechnology 8 1

\$

2 154 934

Computer software 18 26 3 725 327

Scientific instrumentation 17 6 2 118 506

Medical technology 9 4 1 932 522

Laser systems 4 0 767 757

Communications technology 16 6 5 818 226

Robotics 5 3 551 611

Computer related equipment 11 7 1 176 222

Micro electronics 2 2 455 083

Advanced materials 3 1 3 466 241

Alternative energy systems 1 4 81 464

Total 94 60 22 247 893

20

National Biotechnology Program

There is a close liaison between the Chairman of the Board and the Chairman of the National Biotechnology Program Research Grants Advisory Committee to ensure that each agency is fully informed about the overall developments in biotechnology in Australia. The Board provides the Committee with regular reports on biotechnology projects that it approves for funding. The Committee, for its part, identifies research grant applications which are more suitable for support under the IR&D Incentives component of the Program and advises the applicant companies to apply to the Board for project grant

support.

21

CHAPTER 7 INDUSTRIAL RESEARCH AND DEVELOPMENT ON BEHALF OF THE COMMONWEALTH AND SECTION 39 (PUBLIC INTEREST) PROJECTS

Arrangements

The public interest provision (Section 39) of the Act has now been in operation for seven years. Section 39 provides that, where the Minister is satisfied a project of industrial research and development is in the public interest, he may authorise the Board to make arrangements, on behalf of the Commonwealth, for the carrying out of the project.

Arrangements made for public interest projects are required to be in accordance with the Minister's Directions to the Board. These Directions generally cover the following aspects:

the project description; the estimated cost; the selection of contractor (where appropriate); and the authority for the Board to enter into agreements for and in relation to the carrying out

of the project in accordance with such arrangements as are determined by the Department.

To date, all Directions received from the Minister under this provision have related to projects funded through the Department of Science and Technology and the Department of Industry, Technology and Commerce. At present the latter Department has been given responsibility for executive management. During 1984-85 payments totalling \$9 822 152 were made for public interest projects.

The Board is responsible for arranging agreements and subsequent verification of all expenditure on projects. Project proposals originate from companies, government research bodies, educational institutions or individuals. The selected projects generally are in high technology fields and are intended to help improve the technological and competitive position of Australian

industry. Proposals are, in the first instance, directed to the Department of Industry, Technology and Commerce.

Australian Industrial Research and Development Incentives Advisory Committee

Under Section 21 of the Act, the Minister is required to refer a proposal to the Australian Industrial Research and Development Incentives Advisory Committee before exercising his powers under Section 39. In assessing the merits of each proposal, the Committee

takes into account the desire of the Government that public interest projects should:

• be of a high priority in terms of Government policy objectives; • have substantial social and economic benefit to the community; • be of major importance and likely to command widespread public support; • normally involve the commercial development of the research results of public sector or non-profit research institutions or, if not, be for a project of IR&D as defined in the Act; and • not be funded in place of other funding sources.

During 1984-85 a total of fourteen proposals were considered by the Committee, of which seven were recommended for funding. The Act provides for up to eight Members and a Chairman to be appointed to the Advisory Committee, which began its operations in December 1981.

22

The eight Members and the Chairman currently appointed to the Committee are: Chairman • Mr B J Scanlan • Company Director.

Members • Dr D Beanland • Associate Director, Royal Melbourne Institute of Technology.

Mr P Grant • Senior Associate, Nicholas Clark & Associates.

Mr B T Nolle • Technical Director, Philips Industries Holdings Pty Ltd.

Mr G H Raymond • Managing Director, Thom EMI Electronics (Aust) Pty Ltd.

Dr P N Richards • General Manager, Research and Technology, Coated Products Division, BHP Steel International Group.

Prof. N C Stephenson • Head, School of Chemical and Earth Sciences, NSW Institute of Technology.

Dr R N Symons • Department of Biochemistry, University of Adelaide.

Executive Member • Mr P Haddon • Assistant Secretary, Technology Development Branch, Department of Industry, Technology and Commerce.

Public Interest Projects

Seven projects were authorised by the Minister during the year. These projects were:

• Energy Efficient Dust Removal from Flue Gases • Starlab Detector Development Program • Earth Resources Satellite (phase one) • Anjay and Jacspin Friction Spinning Systems (phase one) • Immunosuppressant Drugs • Laser Photochemistry (additional funding) • Hollow Cathode Integrated Circuit Processor.

All continuing and completed projects are listed below.

• National Water-treatment Systems Development and Demonstration Centre • Multi-channel Implantable Hearing Prosthesis (• bionic ear •) • Automated Plate-freezing of Meat • Pressure Diecasting of Brass • Aerial Agricultural Spraying System • Biomedical Diagnostic System • Immunoassay Project • Integrated Nursery System • Cheese Manufacturing Technology Development • Advanced Methods of Programming Large Numerically Controlled Machine Tools

• Low-cost Computer-based Management Information System

• Microwave Component Development Facility • Ultrasonic Breast Scanner

• Microprocessor-based Training Aid for Handicapped Persons • Computer-aided Manufacturing System and a Development and Demonstration Centre for Sheet-metal Fabrication and Manufacture • Silicon Photovoltaic Cells • Starlab Instrument Package

23

• Laser Photochemistry • Remotely Operated Vehicle (ROV) Feasibility Study • Fibre Optic Sensors • Algal Biotechnology • Human Growth Hormone • Laser Gas Monitoring • VLSI Software Design

Brief details of the projects, except for six of the seven approved this year, have been given in previous Annual Reports. Details of the new projects, and the latest developments on the other projects, are now offered for information.

New Projects

Energy Efficient Dust Removal from Flue Gases

The objective of this project is to increase the efficiency of industrial hot gas filtration techniques by the development of a converging flow filter to a full scale production prototype as an extension of work done by the Royal Melbourne Institute of Technology (RMIT) on a laboratory scale.

Starlab Detector Development Program

This project continues the development of the Starlab detector system for use in further space applications. Design of a prototype for preliminary space qualification is in progress and it is hoped to fly the prototype on the Space Shuttle. The work is being undertaken by the Australian National University with a total approved funding of \$2 000 000.

Earth Resources Satellite (phase one)

This project will enable Australia to participate in the European Earth Resources Satellite (ERS-1). The project is in two parts. Part one, awarded to Hawker de Havilland Pty Ltd, is a project definition study to produce detailed information on possible Australian participation in the operation of ERS-1. The second part, awarded to British Aerospace Australia Ltd is for the design and construction of an electronic module which will be part of an Along Track Scanning Radiometer aboard ERS-1.

Anjay and Jacspin Friction Spinning Systems (phase one)

This project seeks to demonstrate the technical and hence commercial viability of the Anjay friction spinning system. Phase one involves the development of a twice normal size transparent model of a prototype fibre assembler (feeder) to deliver fibres to the spinning head. RMIT will be the prime contractor. Total approved expenditure is \$150 000.

Immunosuppressant Drugs

This project's objective is to develop amphiphiles as immunosuppressant drugs and drug delivery agents. Amphiphiles are chemicals soluble in both water and oil. Immunosuppressants are used to prevent tissue rejection after organ transplantation. The project is estimated to cost \$320 000 over twenty-one months. ANUTECH Pty Ltd is the contractor.

Laser Photochemistry

Additional funding for a continuing project described below.

24

Hollow Cathode Integrated Circuit Processor

This project is to conduct the initial research and development and produce a marketing plan for a novel machine to etch silicon wafers as part of the process of producing integrated circuits. Contracts for the production and testing of a prototype, and the development of production and marketing plans, are in the negotiating stage. Funding for the project is \$370 000.

Continuing and Completed Projects

National Water-treatment Systems Development and Demonstration Centre

The first commercial Sirofloc plant has been commissioned at Bell Bay, Tasmania, with a capacity of twenty megalitres of processed water per day. Commissioning of the Sirotherm/magnetic dealkalisation demonstration plant has determined that additional resin is required for satisfactory plant operation.

Multi-channel Implantable Hearing Prosthesis ("bionic ear")

This project has now progressed to the clinical trial phase with the aim of obtaining Food and Drug Authority (USA) approval. Implants have been performed in four centres and are planned in an additional twelve in the USA. Federal Drug Authority pre-marketing approval is expected in September-October 1985. This will allow open use of the device on a commercial basis.

Automated Plate-freezing of Meat

The prototype freezer has been installed at Tancred's Beaudesert Abattoir for testing and industry demonstration purposes. Completion of trials is expected in 1985.

Pressure Diecasting of Brass This project is complete. Demonstrations and workshops have been held as a part of the process of transferring the technology to industry. The final report on the project has been issued.

Aerial Agricultural Spraying System Further analysis of the commercial potential of this project suggests that it would not be commercially viable. This project is now complete.

Biomedical Diagnostic System "Immunoassay Project The prototype autoanalyser trials were successfully completed. An alternative simplified technique for the application of the assay kits, known as Ligand Displacement Enzyme Immunoassays (LIDIA), was trialed and completed. The commercial prospects for the

marketing of these kits were explored with a number of firms. This project is now complete.

Integrated Nursery System Bums Philp and Company was contracted (total value of contract \$400 000) and has now completed the Environmental Conditioning Study. A report on the study is available from the Department. Tenders have been called for the final phase of the project, the Packaging

and Transportation study, which will include trial shipment of live plants.

Cheese Manufacturing Technology Development The "short method" of cheddar-cheese manufacture has been successfully demonstrated. A commercial development agreement has been executed for the manufacture of large-scale production plants. Work on remaining aspects of this project is virtually complete.

25

Advanced Methods of Programming Large Numerically Controlled Machine Tools

A report on the project has been published and distributed. It provides guidelines for companies wishing to acquire their own numerically controlled programming system and describes a system being evaluated in industry. This project is now complete.

Low-cost Computer-based Management Information System

Arrangements have been made to develop and disseminate in Australia, a microcomputer based management information system suitable for management decision making and factory control, applicable to a wide cross-section of manufacturing enterprises. Marketing of first sub-systems will occur in late 1985.

Microwave Component Development Facility

The development facility has been continuing to provide research and development resources to Australian industry. Consideration is now being given to the form the Microwave Technology Development Centre should take to enable it to continue operation once Commonwealth funding support ceases. It is anticipated the Centre will continue as a commercially viable operation.

Ultrasonic Breast Scanner

A prototype is currently being evaluated at Emory University Breast Clinic, Atlanta, USA and a USA market survey was commenced. The results of this survey and the clinical evaluation are expected in August 1985.

Microprocessor-based Training A id fo r Handicapped Persons

The Department is currently negotiating an agreement on manufacturing licencing rights with a South Australian company as Thom-EMI did not exercise its option to those rights. The first units are expected to be commercially available before the end of 1985.

Computer-aided Manufacturing System and a Development and Demonstration Centre fo r Sheet Metal Fabrication and Manufacture

Demonstration portion of the project is now complete. A teaching package is being developed for use in CAE and TAFE courses.

Silicon Photovoltaic Cells

The manufacturing facility at Philipâ€™s Hendon Works, South Australia, is now routinely producing, modifying and assessing solar cells and panels. The project is effectively completed. The final report is expected to be available by October 1985.

Starlab Instrument Package

This project, to develop the essential design, documentation and construction capability for the Starlab Instrument Package, started in October 1982. It was completed in June 1984. An associated study into the economic and social benefits, which will accrue from participation in subsequent phases of Starlab, was reported on in January 1984.

Laser Photochemistry

In June 1985 project funding was increased to \$2 000 000 to allow primarily for additional processes to be investigated and for patent costs. Early results are encouraging.

Remotely Operated Vehicle (ROV) Feasibility Study

This project is now complete. The feasibility study is being edited and printed for public release by the Minister. The study has identified the key market place technologies and infrastructures necessary to facilitate the establishment of an ROV manufacturing industry within Australia.

26

Fibre Optic Sensors

This project seeks to establish in Australia a facility to undertake research and commercial development of fibre optic based sensors. This project has been contracted to a Wormald subsidiary, Australian Optical Fibre (Research), which is completing its recruitment requirements and establishing marketable products for research and development. The contract involves a maximum Commonwealth liability of \$5 444 200.

Algal Biotechnology

The project is to develop the appropriate technology and necessary infrastructure to establish an Australian industry to produce and commercialise a range of algal and related products obtained from selected organisms. A contract for phase one of the project has been signed with Westralian Farmers CoÂ

Operative Ltd. The limit of Commonwealth liability is \$3 350 000.

Human Growth Hormone

This project aims to develop a pilot plant to produce a biosynthetic human growth hormone using recombinant DNA techniques. Demand for this product is increasing and exceeds the supply from natural sources. Tenders have been called for an industrial partner to join the Garvan Research Laboratory which was engaged in this project in

1984â€™ 85. An increase in funds to accelerate a testing program has been approved.

Laser Gas Monitoring

The University of Queensland was awarded an initial contract for \$120 000 in June 1984 to continue with its research into the development of the laser techniques. This contract is coming to an end and industrial partners are being sought. Developments to date have shown it is possible to detect very low concentrations of

specific gases and particles. A market survey has shown there is a considerable potential for this development in many industrial applications.

VLSI Software Design This project is concerned with the development and dissemination of a new generation of CAD software tools for the design of large scale and very large scale integrated circuits for microelectronic application.

27

CHAPTER 8 TECHNICAL STANDING COMMITTEE, APPROVAL OF PROFESSIONAL INSTITUTES, EMPLOYEES AND RESEARCH ORGANISATIONS

Technical Standing Committee

The role of the Committee is to consider and advise on any matter of a technical or commercial nature relating to a grant application referred to it by the Board, or under Section 7 of the Act, to examine applications from companies seeking recognition of employees lacking recognised professional qualifications as Approved Employees for the purposes of the Act. A coverage of the Committee's activities in 1984 is included below.

Recognised Professional Institutes

Section 4 of the Act provides that for salary expenditure to be eligible for grant the work must be performed or supervised by a professionally qualified full-time employee or an Approved Employee. A professional qualification in an appropriate discipline may be as conventionally defined, or qualifications sufficient for admission to corporate membership of an approved professional institute.

The Technical Standing Committee recommends to the Board regarding the approval of professional institutes based on the Board's requirement that the minimum entry standard is the holding of a degree, diploma or equivalent in a field of science or technology. The Board has given consideration to changing its requirements to allow approval of professional institutes which admit members without such qualifications, but with proven ability, skills and experience to perform IR&D. This would eliminate the necessity for many Approved Employee applications.

During the year, the Board accorded no new recognitions of professional institutes, the number of which remains at twenty-two.

Approved Employees

The Board receives advice from the Technical Standing Committee in its consideration of applications for recognition of unqualified IR&D supervisors as Approved Employees. Each application for Approved Employee status is examined by the Committee for evidence of the experience and ability of the employee. Other factors taken into consideration are the Minister's direction that IR&D work, when assisted by commonwealth grants, in general, be performed or supervised by professionally qualified persons; the definition of IR&D in the Act; and the option to limit any approval recommended to a given area of expertise.

During the year, the Committee met fourteen times and considered 418 applications. The Board, following recommendations of the Committee, unconditionally recognised 168 persons as Approved Employees and 184 were restricted to particular fields of IR&D. Fifty-one applications were rejected. The Committee, to ensure that the applications were fully considered and to confirm the correctness of information contained in the application, corresponded with forty-two companies to elicit supporting information and initiated forty visits to companies by technical staff assisting the Board.

Approved Research Organisations

Under Section 6(1) of the Act, the Board may approve a research organisation so that a grant applicant can claim as eligible expenditure the cost of any IR&D contracted to that organisation.

28

In 1983-84 the Board reviewed its requirements for Approved Research Organisations. It now considers for approval applications from research organisations which do not employ a person holding a professional qualification recognised by the Board. Applicants in this category may obtain recognition as an Approved Research Organisation subject to certain restrictions placed on the scope of IR&D undertaken for grant recipients. These

applications are considered by the Technical Standing Committee which makes approval recommendations to the Board. During the year the Committee considered thirty-four applications. In all instances the Committee requested three peer referees and more detailed information on the IR&D undertaken by the organisation. The Board followed all

recommendations of the Committee and recognised twenty new Approved Research Organisations and rejected fourteen applications in this category. During the year Approved Research Organisation recognition was accorded to 166 applicants. Recognition of fourteen organisations which had ceased to perform IR&D on

behalf of grant applicants, or were otherwise no longer eligible for recognition, was revoked after a review of those then current. A complete list of Approved Research Organisations, totalling 862 as at 30 June 1985, is available on request from the Board's Canberra Office.

29

APPENDIX A

GRANT PAYMENTS FROM 1984-85 FUNDS

COMMENCEMENT GRANTS

Company \$ Company \$

AAP Reuters Communications Pty Ltd 28 234

A B S Australian Business Systems Pty Ltd 30 891

A B M Plastics (Aust) Pty Ltd 40 000

A D Engineering Pty Ltd 2 163

A E D Computers Pty Ltd 58 119

A H S/Australia Pty Ltd 25 530

A 1 P Holdings Pty Ltd 40 000

A K M Aluminium Developments Pty Ltd 1 485

A R B Engineering Pty Ltd 31 662

A & R Conveyor Systems Pty Ltd 3 816 A S P Dryers Ptd Ltd 4 359

Abar Rubber Pty Ltd 1 808

Abberfield Industries Pty Ltd 80 000 Abbeyfield Pty Ltd 33 500

Abon Distributors Pty Ltd 7 392

Abraxas Computers Pty Ltd 5 800

Accord Sign Cabinets Pty Ltd 643

Accurate Profile Roll Forming Pty Ltd 9 108 Ace Filters Pty Ltd 2 654

Ace-T Pty Ltd 81 697

Acme Oil Equipment Services Pty Ltd 11 695 Acoustic Holdings Pty Ltd 2 425

Acrylic Industries Pty Ltd 14 978

Action Chemical Company Pty Ltd 6 480 Action Sheetmetal Pty Ltd 3 250

Action Trampolines & Gymnastics Equipment Pty Ltd 8 742

Adams Industrial Chemical Co Pty Ltd 29 594

Add-On Pty Ltd 9 180

Adtek Computer Pty Ltd 22 710

Aegis Pty Ltd 38 308

Aero-Tec Aviation Industries Pty Ltd 5 992 Agricultural Electronic Equipment Pty Ltd 11 565

W Ahrens & Son Pty Ltd 25 278

Air & Noise Engineering (Vic) Pty Ltd 14415

Air Radiators Pty Ltd 52 079

Albury Pottery Pty Ltd 9 699

Aldart Electronics Pty Ltd 21 901

Aldona Holdings Pty Ltd 17 571

John Alexander Industries Pty Ltd 12 881 Alexander Packaging Equipment Pty Ltd 20 634

Alfatron Pty Ltd 18 885

All Yacht Spars Pty Ltd 7 173

Allco Steel Corporation Pty Ltd 15 746 Alphapharm Pty Ltd 40 000

Alpha Refrigeration & Air Conditioning Pty Ltd 8 367

Alroh Sales and Service Pty Ltd 11 974 Altronic Distributors Pty Ltd 2 270

Alulite Pty Ltd 18 305

Aluminium Components Pty Ltd 37 324 Amalgamated Instrument Co Pty Ltd 23 672 Amalgamated Industries Ltd 12 904 Amalgamated Steel Industries (NSW)

Pty Ltd 16 995

Amesbury Nominees Pty Ltd 4 025

Amor Pty Ltd 4 281

Ampac Industries (WA) Pty Ltd 17 880 Analogue & Digital Measurements Pty Ltd 9 917

Analytron Pty Ltd 2 379

E S & P C Andrawos Nominees Pty Ltd 1 224

Andrew Corporation 40 000

Andrew Engineering (Aust) Pty Ltd 14 353 Applied Communications Pty Ltd 28 245 Applied Technology Pty Ltd 36 703 Appollo Nominees Pty Ltd 4 738

Aquabike International Pty Ltd 11718 Aqua Technics WA Pty Ltd 4 082

Arco Yacht Winches Pty Ltd 15 704

Ardmona Fruit Products Co-Operative Co Ltd 36 681

Arena Nominees Pty Ltd 1 547

Arkana Transport Equipment Pty Ltd 5 696 Arlco Pty Ltd 19 029

Art Spectrum Manufacturing Co 8 522 Ascomation Pty Ltd 6 972

Ashner Food Products Pty Ltd 745

Assmann Australia Pty Ltd 14 425

Associated Cable Supports Pty Ltd 7 103 Associated Electronic Services (1979) Pty Ltd 40 000

Associated Metal Products International Pty Ltd 16 605

Astra Pharmaceuticals Pty Ltd 7 943

Atelier Furniture & Interiors Pty Ltd 7 080 Atlas Air Pty Ltd 40 000

Atlay Pty Ltd 3 900

Auditel Systems Pty Ltd 13 572

Ausdata Pty Ltd 40 000

30

APPENDIX A

Company \$ Company \$

Austec Australia Pty Ltd 14 143

Austec International Pty Ltd 19 335

Austcorp Pty Ltd 9 049

Austpole Pty Ltd 40 000

Austral Insulation Pty Ltd 6 103

Austral Roller Shutters Pty Ltd 10 394 Australian Biomedical Corporation Ltd 40 000

Australian Calibrating Services (A&M Asia) Pty Ltd 21 306

Australian Computer Products (Int) Pty Ltd 11 913

Australian Consolidated Minerals Ltd 14 778 Australian Danish Food Company Pty Ltd 2 283

Australian Design Marketing Pty Ltd 22 722 Australian Farm Machinery Pty Ltd 40 000 Australian Planning & Systems Co Pty Ltd 46 637

Australian Seafood Producers Pty Ltd 13 732 Australian Shipbuilding Industries (WA) Pty Ltd 12 600

Auto Bake Pty Ltd 40 000

Autocaps (Aust) Pty Ltd 8 850

Auto Hoist Pty Ltd 13 100

Autochem Pty Ltd 3 789

Automatic Roller Doors Aust Pty Ltd 17 393 Ayr Pty Ltd 32 284

B & N Industrial Fibreglass Pty Ltd 1 844 B S I International Pty Ltd 7 312

B T B Smash Repairs Pty Ltd 6 285

Baa-Brand Industries Pty Ltd 2 874

Bailey Design Pty Ltd 1 520

Barnsley Aluminium Windows Pty Ltd 2 534

Barson Computers Pty Ltd 19 895

J F Barter (Manufacturing) Pty Ltd 2 149 Barup Pty Ltd 31 177

Basstech Pty Ltd 4 305

D J Batchen Pty Ltd 21 912

Baulfour Wauchope Pty Ltd 13 484

Beira Nominees Pty Ltd 8 504

Beldora Pty Ltd 4 608

Belle Lumiere Pty Ltd 18 220

Dick Benbow & Associates Pty Ltd 3 243 L G Bennet & Co Pty Ltd 7 053

Benney Instruments Pty Ltd 1 790

John Benson & Associates Pty Ltd 23 834 Bernel Nominees Pty Ltd 1 678

P Berger & Associate Engineers Pty Ltd 22 113

P J Berriman & Co Pty Ltd 7 963

Bertemp Sales Pty Ltd 3 074

Best Foods 37 421

Bevage Pty Ltd 40 000

Bevisco Pty Ltd 30 060

Bi Lock Pty Ltd 12 657

Biodesign Pty Ltd 5 565

Bio-Energy (Australia) Pty Ltd 62 512 Bioglan Laboratories (Aust) Pty Ltd 12 000 Biotechnology Research Enterprises SA Pty Ltd 11417

Biopharm Pty Ltd 4 419

Biranna Engineering Pty Ltd 15 794

Birrus Engineering Pty Ltd 13 046

Bo-Ema Coffee Machines Pty Ltd 8 080 Bond Machinery Ltd 2 458

Bonich Pty Ltd 6 876

Bonyu Pty Ltd 15 663

Fredk H Booth & Son Group Pty Ltd 9 230 Henri Source Productions Pty Ltd 9 947 W C Bradnam Pty Ltd 12 659

Bradway Engineering Pty Ltd 21 047 Branzon Australia Pty Ltd 6 179

Brass Bed Company of Aust Pty Ltd 3 000 Brentway Nominees Pty Ltd 5 051

Brewtech Pty Ltd 7 426

Broadgate Pty Ltd 24 907

R J Brodie Pty Ltd 34 155

Bromley Holdings Pty Ltd 25 936

H G Browns Motors Pty Ltd 16 545

Buffalo Engineering Pty Ltd 5 357

Buffalo Trident (Australia) Refrigeration Pty Ltd 4 873

Burning Log Fireplace Specialists Pty Ltd 40 000

Burton Cables Pty Ltd 32 093

Bushells Pty Ltd 4 610

Bushtronics 9 324

Butler Electric Pty Ltd 15 895

Byrne Industries Pty Ltd 21 148

C E Electronics Pty Ltd 30 363

C I K Australia Pty Ltd 40 000

C K N Packaging Equipment Pty Ltd 7 445 CMC Chemicals Pty Ltd 8 803

C R T Bulk Haulage Pty Ltd 17 476

Cabin Engineering Pty Ltd 38 543

Cadilla Pty Ltd 8 601

Callaghan Placing Systems Pty Ltd 14 113 Camden Pharmaceuticals Pty Ltd 40 000 Camelot Nominees Pty Ltd 8 802

Can Packs Pty Ltd 24 329

Canning Building Service Pty Ltd 22 161 Capco Pty Ltd 31 294

31

APPENDIX A

Company \$ Company \$

Carbine Nominees Pty Ltd 3 194 Common Sense Products Pty Ltd 12 991

Carborundum Pty Ltd 5 633 Compiz Pty Ltd 3 000

Joe Carmody Nominees Pty Ltd 4 675 Component Resources Pty Ltd 39 432 L B & V M Carmody Pty Ltd 12 357 Compucat Pty Ltd 23 797

Carnation Australia Pty Ltd 6 960 Computer Engineering Sales Pty Ltd 6 220 Cashmaster Pty Ltd 24 148 Computer Interface Australia Pty Ltd 13 762

Case Communication Systems Ltd 19 927 Computronics International Pty Ltd 18 678 Brian Cassidy Electrical Industries Comsys Australia Pty Ltd 40 000

Pty Ltd (in liquidation) 26 026 Consolidated Plastics Pty Ltd 12 158

Brian Cassidy (NSW) Pty Ltd 20 477 Contrec Systems Pty Ltd 14 023

Cater Oil Company Pty Ltd 11 690 Control Logic Australia Pty Ltd 6 108

Catt Furniture Pty Ltd 10 060 Coomac Industries Pty Ltd 3 561

Cedar World (WA) 11 378 Lloyd A Cooper Pty Ltd 18 261

Celsiunator (SA) Pty Ltd 9 442 A D Coote & Co (Sheetmetal) Pty Ltd 3 126

J C & J P Cens Pty Ltd 76 066 Co-ordinated Plumbing Pty Ltd 1 624

Central Grain Industries 17 157 Copeland Industries Pty Ltd 1 008

Century Oils Australia Pty Ltd 20 233 Cordis-Bio Synthetics Inc 40 000

Cephalic Pty Ltd 30 921 Cosmatronic Computer Services Pty

Ceramic and Engineering Ltd 3 276

Developments Pty Ltd 36 524 Council of the Municipality of Ryde 17 590

Ceramic Oxide Fabricators Pty Ltd 7 747 Couray Sheet Metal Pty Ltd 2 311

Chalmers & Comer (Press Brakes) Cox Mower & Machinery Co 17 50

Pty Ltd 11 017 Creative Copper Art 11 368

Chambers Electric Pty Ltd 63 606 Creative Strategies Pty Ltd 2 665

Chapman (PW) Engineering Pty Ltd 33 489 Cretex Pty Ltd 14 231

Charon Investments Pty Ltd 18 329 Crib Point Engineering Pty Ltd 22 791

Chartwell Industries Ltd 5 000 Crisp Bros Pty Ltd 3 185

Checker Flag Miniature Raceways Pty Barry Crommelin Nominees Pty Ltd 6 157 Ltd 7 601 Crouse-Hinds (Australia) Pty Ltd 22 897

Chemfix Pty Ltd 22 877 Cumbrae Electronics Pty Ltd 7 821

Chemical Formulators Pty Ltd 20 605 Cybergraphic Systems Pty Ltd 40 000 Chemical House Pty Ltd 19 297 Cybernetics Control Pty Ltd 17 095

Chemical Refining Co Pty Ltd 12 293 Cyclamen Services Pty Ltd 29 347

Cheque Printers & Encoders Ltd 12 263 D S T Diversified Science & Cheras Industries (Manufacturing) Pty Technology Pty Ltd 18 702

Ltd 11 017 D W Sales Pty Ltd 2 140

Civilbuild Constructions Pty Ltd 1 734 R David-Moss Pty Ltd 37 447

Clackline Refractories Ltd 5 054 Dalfin Products Pty Ltd 27 598

Clearpoint Smurfit Pty Ltd 7 220 Daly Laboratories Pty Ltd 4 874

Clift Electronics Pty Ltd 7 523 Peter F Danby 4 192

C H Clutterham Pty Ltd 2 486 Danish Australian Trading Company

C H Clutterham Engineering Pty Ltd 5 916 Pty Ltd 9 149

Coca-Cola Export Corporation 22 998 Danista Pty Ltd 2 708

Edwin Codd & Partners Pty Ltd 8 480 Data Concepts Systems Pty Ltd 39 945 Collotype Printers Pty Ltd 2 394 Datamax Pty Ltd 69 682

Colorflo Dispersors Pty Ltd 5 093 Dataswitch Australia Pty Ltd 7 779

Colrol Pty Ltd 12 325 Î B & K J Davidson Pty Ltd 2 500

Columbus Holdings Pty Ltd 1 998 Davies, Craig Pty Ltd 12 889

Combined Enterprises Construction Brian Davies Marine Design Pty Ltd 8 338 Pty Ltd 13 794 Davis Fabricated Metal Products Pty

Comgroup Supplies Pty Ltd 11 346 Ltd 4 828

Comlabs Pty Ltd 30 530

32

APPENDIX A

Company \$ Company \$

W Dzenko Structural & General Engineering Pty Ltd 30 177

Elphinstone Engineering (Aust) Pty Ltd 22 933

A A de Fina & Associates Pty Ltd 1 502 Dale B Elphinstone Pty Ltd 40 000

Deaye Pty Ltd 8 904 Elron Engineering and Fabrications

Dedicated Microsystems Pty Ltd 15 760 Pty Ltd 11 765

Deeko Australia Pty Ltd 27 766 Elvinco Plastics Pty Ltd 1 864

H J Denman & Associates Pty Ltd 692 Emery Chemicals Pty Ltd 22 393

Detection Systems Pty Ltd 11 105 Emslie Tooling Pty Ltd 7 548

Diagnostic Instruments Pty Ltd 4 212 Endeavour Pty Ltd 10 785

Diamond Air Conditioning Manufacturers Pty Ltd 17 650

Engineering Plastics Nominees Pty Ltd 8 084

Diamond Shamrock (Australia) Ensate Pty Ltd 14 217

Pty Ltd 5 227 Epoxylite (Australasia) Pty Ltd 24 323

Dicker Data Projects Pty Ltd 33 234 Evans Print Pty Ltd 34 693

Dilali Pty Ltd 1 800 Everhard Industries Pty Ltd 12 055

Disposable Products Pty Ltd 10 952 Extrusion Machine Co (Australia) Pty Dolmar Chemicals WA Pty Ltd 22 166 Ltd 18 195

Don Smallgoods Coy Pty Ltd 7 318 Eyelets Supply Co Pty Ltd 1 671

Donvegan Pty Ltd 12 692 Ezekiel Nominees Pty Ltd 11 114

Douglas Chemicals (Vic) Pty Ltd 14 384 E D M Sales Pty Ltd 11 200

R G Douglas Industries Pty Ltd 12 916 F E S Holdings Pty Ltd 8 554

Dover Fisheries Pty Ltd 14 545 Peter Fanning & Co Pty Ltd 15 304

Dowak Pty Ltd 2 717 Fastron Pty Ltd 24 532

Dow Coming Australia Pty Ltd 40 000 Fatcat Productions (Australia) Pty Ltd 6 078 Dowden's Pumping Sales & Service Fat-Sel Pty Ltd 40 000

(Mackay) Pty Ltd 3 692 Fem Holdings Pty Ltd 2 412

John Downey (Sheetmetal) Pty Ltd 14 022 Fertal Holdings Pty Ltd 2 965

Drager Australia Pty Ltd 11 220 Fessl Pty Ltd 31 242

Drake Trailers 78 282 Fict Australia Pty Ltd 40 000

Dufaylite Pty Ltd 4 293 Fictor Pty Ltd 4 033

Duff Steel Industries (NSW) Pty Ltd 6 355 Fine Metals Corporation Pty Ltd 4 911 Dumford Pty Ltd 9 659
Finer Engineering Pty Ltd 11 096

E C S A Pty Ltd 1 695 Fire-Brake Pty Ltd 15 353

E M G Holdings Pty Ltd 40 000 Firstron Pty Ltd 40 000

E R G Management Services Ltd 29 239 Fischer Industries Pty Ltd 40 000

ESRI-Australia Pty Ltd 4 737 Flexible Systems 21 296

Eagle & Globe Steel Pty Ltd 32 400 Flexipave Concrete Industries Pty Ltd 4 269 J M Eastabrook Pty Ltd 7 739 Flow Laboratories (Australasia) Pty

Economics Laboratory Pty Ltd 10 970 Ltd 30 041

Ecotech Pty Ltd 6 737 Forbes Engineering Holdings Pty Ltd 6 681

Eden Corporation Pty Ltd 34 042 Formula Chemicals (NSW) Pty Ltd 17 389

A C Edwards Pty Ltd 4 431 Formulab Technology Australia Pty

40 000 Ejan Electronics Services 3 412 Ltd

Electrologic Pty Ltd 12 633 Forpark Pty Ltd 4 072

Electronic Development Corporation F J Forrest Pty Ltd (in liquidation) 11 088 Pty Ltd 37 397 Fount Wip Pty Ltd 13 946

Electronic Facilities Pty Ltd 5 945 K H Fox Pty Ltd 2 029

Electronic Innovations Pty Ltd 8 190 Framac Industries Pty Ltd 5 568

Electronic Sign Switching Pty Ltd 8 396 Franna Cranes 24 669

Electron Security Systems Pty Ltd 17 957 Ê- I Fraser Pty Ltd 12 289

R E Elliott & Son Pty Ltd 27 460 P A Fraser Nominees Pty Ltd 6 906

33

APPENDIX A

Company \$ Company \$

P C Freiburg Industries 5 216

Freton Automotive Security Systems (Aust) Pty Ltd 1 975

Froas Pty Ltd _ 9 899

Futuretech Pty Ltd 9 385

Fytore Pty Ltd 1 083

G P International Pipe Coalers Pty Ltd 22 769 G S Systems Pty Ltd 14 219

G T E Australia Pty Ltd 40 000

Galmac Laboratories Pty Ltd 2 194

Galvale Pty Ltd 40 000

Galvin Engineering Pty Ltd 7 559

Gambro Pty Ltd 4 291

Ganmart Pty Ltd 11 171

Gantron Pty Ltd 27 969

Garwood Machinery (Australia) Pty Ltd 17 072

Garwood Packaging Pty Ltd 40 000

Gazelle Foods Pty Ltd 23 296

Gearhart Meshbolt Support System Pty Ltd 15 181

Geelong Agricultural & Engineering Co Pty Ltd 40 000

Geelong Wall Company Pty Ltd 1 487 Gelati Italia Pty Ltd 12 669

Genat & Wood Pty Ltd 17 703

Gendap Pty Ltd 39 605

General Bearing Co Pty Ltd 10 051

General Instrument (Australasia) Pty Ltd 32 658

General Technology Pty Ltd 38 261

Geophysical Research Pty Ltd 5 218

Geographe Enterprises Pty Ltd 4 100

Geola Product Services Pty Ltd 9 673

George Gibbens Pty Ltd 19 822

Gibbs Burge & Co Pty Ltd 17 470

Gilford Electric Co Pty Ltd 945

Gilsa Seal Pty Ltd 33 770

Gladstone Holdings Pty Ltd 5 545

Glassmetal Industries Pty Ltd 8 018

Glass Reinforced Products (GRP) Pty Ltd 40 000

Glencor Industries Pty Ltd 11 733

Glendale Corporation (Aust) Pty Ltd 17 696 Gliderol Roller Doors Pty Ltd 18 623

Good Samaritan Industries 816

Trevor Goodwin Real Estate Pty Ltd 26 126 Gosford Forge Pty Ltd 12 242

Gossati Nominees Pty Ltd 6 525

Graham Group 12 606

Gram Pty Ltd 6 256

P J Grayden Pty Ltd 8 886

Grayline Holdings Pty Ltd 7 774
Paul Green & Associates Pty Ltd 21 625 William Green Pty Ltd 5 693
Grummet Motor Bodies Pty Ltd 24 605 Gunn & Hiskens Pty Ltd 5 934
Gunyah Nominees Pty Ltd 14 204
Guthrie Manufacturing (Aust) Pty Ltd 5 227 H I M Burners (Aust) Pty Ltd 1 042
Hadfield Sign Co Pty Ltd 5 061
Halco Engineering Pty Ltd 12 982
Halda Systems Pty Ltd 23 461
Hales & Rogers Pty Ltd 18 837
Hallan Nominees Pty Ltd 3 348
Hallmark Industries Pty Ltd 11 846
Hallprint Pty Ltd 6 654
Halsten Engineering Pty Ltd 14 564
W D & V J Hambley Pty Ltd 2 629
Hamersley Developments Pty Ltd 1 097 A Hankin & Co Pty Ltd 13 988
Hanson Sykes Pumps Pty Ltd 5 590
E H Harris & Co Pty Ltd 1 888
Harris Tame Pty Ltd 11 351
Graham Hart (1971) Pty Ltd 1 274
Hartley Cyber Engineering Pty Ltd 36 021 Hawke Bros Pty Ltd 17 504
Hay Manufacturing Pty Ltd 1 000
Hazemeyer-Holec (Aust) Pty Ltd 22 888 Healthway Dairy Products Pty Ltd 4 004 Heating Systems Pty Ltd 8 581
Herlest Nominees Pty Ltd 9 062
Hexiva Pty Ltd 24 524
Heyden-Spike Co Pty Ltd 7 994
Hilleng Pty Ltd 32 353
Hills and Willis Pty Ltd 39 091
Holland Hitch (Aust) Ltd 7 520
Honor Bright Pty Ltd 23 476
Fred Horn & Son 11 797
Hosier Nominees Pty Ltd 2 056
Hospital Products Limited 40 000
Hubert Textiles Pty Ltd 7 498
Hughes Engineers Pty Ltd 14 723
Hughes Technology Pty Ltd 19 954
R G Hulse Pty Ltd 22 061
Hunter Hydraulics Pty Ltd 16 178
Hunter Wire Products Ltd 17 231
Hunting Begley Engineering Services Pty Ltd 12 885
Hydramatic Engineering Pty Ltd 21 697 Hydro Systems (Tas) Pty Ltd 32 324
Hydroline Australia Pty Ltd 29 222
I R T Electronics Pty Ltd 27 314
Ichthus Engineering Pty Ltd 17 160

34

APPENDIX A

Company \$ Company \$

Ilgav Pty Ltd 16 332

Impresstik Machinery Pty Ltd 10 772 Indoplas Pty Ltd 17 204

Industrie Pty Ltd 15 039

Industrial Containers (Australia) Pty Ltd 8 150
Industrial Electrics Pty Ltd 3 905
Industrial Plastics Services Pty Ltd 16 618 Industrial Process Controls Ltd 23 469 Industrial Pyrometers (Aust) Pty Ltd 10 231 Inglis Industries Pty Ltd 8 564
Innisbrook No 3 Pty Ltd 8 492
Integral Fibre Systems Pty Ltd 36 510
Interior Modular Products Pty Ltd 13 698 Intermec Australia Pty Ltd 7 487
International Catamarans Pty Ltd 12 342 Invertech Equipment Pty Ltd 19 349
J E W Nominees Pty Ltd 11 847
J & H Agencies Pty Ltd 3 241
J P Products Pty Ltd 31 208
J R M Helyplanes Pty Ltd 13 838
J T Microcomputers Pty Ltd 8 796
Paul B Jackson & Associates Pty Ltd 80 000 Jaden Pty Ltd 3 192
Jakab Industries Pty Ltd 17 941
lands Electronics Pty Ltd 28 387
G W Jarrett & Associates Pty Ltd 28 462 Jarrett Industries Pty Ltd 9 107
Jenkin Buxton Printers Pty Ltd 55 16
Norm Jenkins Pty Ltd 8 013
Johnwin Pty Ltd 544
Joma Engineering Pty Ltd 75 061
Jumbo Toys Pty Ltd 399
K C Industries Pty Ltd 51 930
K & K Holdings Pty Ltd 1 275
Ko Technics Pty Ltd 18 773
K W Engineering 7 643
M G Kailis Gulf Fisheries Pty Ltd 30 091 Kal Life Systems Pty Ltd 4 832
Kaloramba Pty Ltd 17 287
Kando Computer Electronics Pty Ltd 2 817 Kawa Kawa Nominees Pty Ltd 5 730
Kempster & Love (A&M Asia) Pty Ltd 7 534 Robert Kershaw International Pty Ltd 28 787 Kewpie Pig Enterprises Pty Ltd 15 809 Kewpie Pork Products Pty Ltd 3 119
Kewpie Stockfeeds Pty Ltd 14 850
Key Industries Pty Ltd 23 524
Kimberley Seeds Pty Ltd 5 685
King Spring Works Pty Ltd 2 413
Klemzig Platers Pty Ltd 8 843
Knapp Lewer Pty Ltd 28 124
S W Konig Pty Ltd 911
Koolfoam Pty Ltd 8 351
Koongarra Mines Pty Ltd 21 608
B Kostecki Nominees Pty Ltd 5 611
Krueger Transport Equipment Pty Ltd 4 211 Krupp (Australia) Pty Ltd 33 040
Kymon Forge & Engineering Pty Ltd 14 300 L I H Australia Pty Ltd 33 934
L S C Electronics Pty Ltd 14 912
Laban Pty Ltd 27 343
Laboratory Equipment Pty Ltd 5 935 Labservice Pty Ltd 6 747
Langford Aluminium Pty Ltd 8 222
Laruffa & Associates Pty Ltd 6 103
Laser Lab Australia Pty Ltd 7 764
Lasertec Services Pty Ltd 5 368

Latchford Industries Pty Ltd 19 987

Lecon Modular Finishes Pty Ltd 42 523 Lectrum Pty Ltd 18 415

Leitrim Investments Pty Ltd 7 024

Leko Pty Ltd 18 013

Lettela Pty Ltd 40 000

David Linacre Pty Ltd 22 397

Linkage Engineering Pty Ltd 9 880

Linmac Pty Ltd 13 355

Lisala Pty Ltd 8 384

Liverpool Plastics Pty Ltd 1 327

Loadarm Australia Pty Ltd 13 736

Lockland Developments Pty Ltd 11 430 D G Lockwood & Co Pty Ltd 21 627

Lolita Automobile Developments Pty Ltd 3 164

G M & J Lombardi Pty Ltd 22 821

A J Lucas Constructions Pty Ltd 13 677 Lynden Electronics Co Pty Ltd 18 641

Lyons & MacKenzie Pty Ltd 66 226

Lytmo-Answertronics 17 216

Lyttlecat Pty Ltd 23 358

Mr Floppy Pty Ltd 16 666

Mr Whippy Pty Ltd 9 110

M S I Data Australia Pty Ltd 4 255

MacDhui Engineering Pty Ltd 3 845

Macey Mining Services Pty Ltd 33 946 MacLagan, Wright & Associates Pty Ltd 29 428

Maclean & Lawrence Pty Ltd 12 516

J Y MacLeod Pty Ltd 7 618

Magnetic Engineering Pty Ltd 6 417

Makers Pty Ltd 7 708

Makram Pty Ltd 19 189

Malik & Bliss Pty Ltd 3 213

Mallina Holdings Ltd 2 972

35

APPENDIX A

Company \$ Company \$

Management Computer Systems Pty Moonraker Australia Pty Ltd 22 531

Ltd 5 207 Moog Australia Pty Ltd 4 074

Man-O-War Play-Quip Pty Ltd 3 271 Moss Products Pty Ltd 8 153

Manahan Nominees Pty Ltd 12 952 Moulded Plywood Products Pty Ltd 8 803 Hugh Manning Pty Ltd 37
727 Mountjoy Nominees Pty Ltd 11 131

Manta Industries Pty Ltd 20 344 Bob Muirhead Electrical Pty Ltd 1 560

Marcus Art Pty Ltd 5 402 Multi Electronic Services Pty Ltd 69 033

Marjorin Pty Ltd 35 300 Multi Equipment Corporation Pty Ltd 4 623

The Markham Boat Co Pty Ltd 21 030 Munusu Pty Ltd 20 659

Marriott Industries Pty Ltd 12 150 Muscat Constructions Pty Ltd 17 030

Marsden & McGain Pty Ltd 40 000 Musicmaker Pty Ltd 9 965

Marshall and Roesner Pty Ltd 6 792 N R Pty Ltd 11 972

Mascon Systems Pty Ltd 11 578 N V C Pty Ltd 4 979

Maunclimb Pty Ltd 35 569 Stephen Nagy Enterprises Pty Ltd 10 073

McGrath Trailers Pty Ltd 2 644 Nambucca Investments Pty Ltd 9 652

McWilliam's Wines Pty Ltd 14 100 Narrellan Track Wheel Align Pty Ltd 25 072 Mears Industries Pty Ltd
5 495 Nationwide Antenna Systems &

Medialux Pty Ltd 2 724 Specialty Products Pty Ltd 4 838
 Medical & Import Manufacturing Co Navitron Pty Ltd 2 033
 Ltd 3 151 Ness Security Products Pty Ltd 17 871
 Medical Research (Marketing) Pty Netcomm (Australia) Pty Ltd 32 576
 Ltd 27 307 J Nethersole & Sons Pty Ltd 750
 Medos Co Pty Ltd 6 719 New South Wales Sugar Milling
 Megatron Computer Industries Pty Co-operative Ltd 1 861
 Ltd 3 707 New World Jersey Pty Ltd 27 890
 Membam Equipment Pty Ltd 4 556 Newtronics Pty Ltd 40 000
 Memtec Ltd 40 000 Nife lunger Pty Ltd 25 235
 Mentay Steel-Fab Constructions Pty A Noble & Son Ltd 8 517
 Ltd 28 070 Noogardie Pty Ltd 49 645
 Menzel Plastic Traders Pty Ltd 11 669 North Eastern Dairy Co Ltd 7 053
 Metcalfe Holdings Pty Ltd 19 102 North Coast Services Pty Ltd 9 715
 Metergram Pty Ltd 8 327 The Northern Queensland Company
 Metronex Engineering Pty Ltd 4 268 Ltd 15 125
 Micro 80 Pty Ltd 14 033 Northern Chemicals Co Pty Ltd 15 464
 Micro Air Pty Ltd 10 443 Northgate Computing Company Pty
 Microguard Controls Pty Ltd 12 526 Ltd 5 357
 Micropro Design Pty Ltd 31 026 Norwood Trading Co Pty Ltd 7 051
 Midland Milk Pty Ltd 31 466 Notera Lisa Nominees Pty Ltd 40 000
 R E Miller Pty Ltd 31 211 Notluob Nominees Pty Ltd 30 430
 Minicom (International) Pty Ltd 12 371 Novaspire International Pty Ltd 34 027 Mining and Process
 Engineering Nova Sun Energy Ltd 36 710
 Services (WA) Pty Ltd 22 473 Nulec Pty Ltd 29 440
 Mitchell Cotts Engineering (Aust) Numericon Pty Ltd 15 240
 Pty Ltd 12 138 Nyah Investments Pty Ltd 13 816
 Mizzi Enterprises Pty Ltd 40 000 Nyborian Pty Ltd 4 363
 Modem Products Pty Ltd 5 130 Nyungari Pty Ltd 30 025
 Moggill Constructions Pty Ltd 5 827 Phil O'Brien Pty Ltd 15 049
 Mole Engineering Pty Ltd 6 719 Oblisk Pty Ltd 13 721
 Molnar Engineering Pty Ltd 24 575 Ocean & Atmospheric Science Pty Monadelphous Mining Products Pty
 Ltd 15 352
 Ltd 12 293 Oceanics Australia Pty Ltd 8 182
 Mood Furniture Pty Ltd 2 226 M G & O E Oâ€™Dea Pty Ltd 1 687
 36

APPENDIX A

Company \$ Company \$

Oenotec Pty Ltd 3 418

Offshore Marine Pty Ltd 40 000

Omega Digital Systems Pty Ltd 40 000 One Design & Skiff Sails Pty Ltd 8 069 Open Road Industries Pty
 Ltd 28 135

Ortex Australia Pty Ltd 12 591

Osborne Ceilings Pty Ltd 27 567

Otraco (International) Pty Ltd 8 165

Ovos Laboratories Pty Ltd 24 447

Overeem Pty Ltd 11 888

P G C Controls Pty Ltd 13 026

P Îœ B Ducting Pty Ltd 6 817

Paccar Australia Pty Ltd 12 323

Pacific Carpets International Pty Ltd 40 000 Pacific Carpets Yams Pty Ltd 32 680
Pacific Marina Developments Pty Ltd 11 546 Packmatic Pty Ltd 15 467
Packtron Packaging Pty Ltd 27 179
Paino Bros 6 535
Pal a Manufacturing Pty Ltd 16 054
Panache Products Pty Ltd 11 571
Paper Converting Co (Qld) Pty Ltd 19 840 Para vet Instruments Pty Ltd 12 062
Pasamina Pty Ltd 4 347
Pattern Products Pty Ltd 14 663
J D Patterson Consolidated Pty Ltd 3 442 Pavement Management Services Pty Ltd 14 921
Paxall Australia Pty Ltd 18 043
The Peanut Marketing Board 20 887
C J Pearce & Co 62 896
Pecan Engineering Pty Ltd 7 834
Ped Holdings Pty Ltd 8 177
Pegasus Technology Pty Ltd 11 010
Penfold Flexibles Pty Ltd 10 125
Pennant Industries Pty Ltd 2 726
Perceptive Systems Pty Ltd 3 001
Perfectfit Clothing Company Pty Ltd 5 901 Perform Metal Industries Pty Ltd 12 599 Perini & Scott
(Australasia) Pty Ltd 20 385 Peterson Speaker Laboratories Pty Ltd 21 397
A W & W E Peters Pty Ltd 11 207
Peters (WA) Ltd 40 000
Phasefale Safety Controls Pty Ltd 21 953 The Phillips & House Group 6 089
Photo Mechanical Products Pty Ltd 4 606 Phytex Australia Pty Ltd 7 308
A Pilgrim Industries Pty Ltd 9 601
Pioneer Liquid Pty Ltd 31 401
Plas-Tec Pty Ltd 10 223
Plasticap Pty Ltd 912
Plastic Pipe Fabrication Pty Ltd 11 701
Pneuvay Engineering Pty Ltd 6 172
Polar Electronic Industries Pty Ltd 26 111 Polycane Furniture Pty Ltd 40 000
Polymer Chemicals Pty Ltd 22 954
Poly pacific Pty Ltd 40 000
Powerflow Pty Ltd 4 416
Powertech (Aust) Pty Ltd 11 070
Powertech Pty Ltd 3 602
Powertrol Pty Ltd 5 362
Pozzolanic Australia Pty Ltd 5 355
Pozzolanic (Queensland) Pty Ltd 10 701 Precision Inserts Pty Ltd 4 748
Prema Controls Pty Ltd 14 371
Prime Manufacturing Australia Pty Ltd 19 912
Project Enterprises Pty Ltd 1 056
Proplas Services Pty Ltd 12 608
Pulsar Electronics Pty Ltd 40 000
Pumps WA Pty Ltd 20 701
Pylon Chemicals Pty Ltd 11 652
Pyrarco Nominees Pty Ltd 27 615
QASCO Pty Ltd 19 229
Quaker Chemical (A&A) Pty Ltd 40 297 Quality Nominees Pty Ltd 4 328

Quantum Engineering Design Pty Ltd 5 720 Queensland Manufacturing Co Pty Ltd 6 695
Queensland Nameplate Pty Ltd 7 542
Quirkâ€™s Refrigeration Pty Ltd 3 612
R C C Electronics (Industrial) Pty Ltd 12 083 R & I Instrument & Gear Co Pty Ltd 2 639 Radiation
Research Pty Ltd 40 000
Radtek Corporation Pty Ltd 2 680
Raider Ski Pty Ltd 46 684
Rail Trade Nominees Pty Ltd 9 429
Rampart Security Pty Ltd 13 265
Ramtec Pty Ltd 8 804
Ran Data Pty Ltd 36 182
Rayglen Safety Frames Pty Ltd 5 316
Rayson Industries Pty Ltd 14 047
A B Rea & Co Pty Ltd 7 583
Redi-Brite Industries Pty Ltd 7 819
Reelax Enterprises Pty Ltd 7 236
Reelco Industries (Aust) Pty Ltd 10 567 Reeve Holdings Pty Ltd 2 000
Refractory Nominees Pty Ltd 17 074
Regal Spec Cases Pty Ltd 4 627
Regulator Australia Pty Ltd 21 592
Reid Research Nominees Pty Ltd 5 516 Reis Orthopaedic Services Pty Ltd 13 019 Rein Pty Ltd 4 167
Reoweld Pty Ltd 9 527
37

APPENDIX A

Company \$ Company \$

Ricway Films Pty Ltd 16 000 S E C Plating Pty Ltd 40 000
Riliza Pty Ltd 15 661 Sealwall (Qld) Pty Ltd 9 315
Rimik Pty Ltd 1 513 Seasonmakers (Australia) Pty Ltd 4007
Rintoul Pty Ltd 42 867 Sea Wind Catamaran (Distributors)
Ritch Engineering Pty Ltd 21 301 Pty Ltd 975
Riteway Materials Handling Pty Ltd 2 963 Security Card System Pty Ltd 3 050 Robertson Audio/Visual
Services Pty Semak Electrics Pty Ltd 29 186
Ltd 6 960 Sepa Waste Water Treatment Pty Ltd 8 053
Robotnik Pty Ltd 6 521 Serica Australia Pty Ltd 9 997
Rockwell Australia Pty Ltd 1 330 Shaw Process Castings Pty Ltd 14 073
Rodfinne Pty Ltd 52 749 Shenton Enterprises Pty Ltd 3 604
Rogex Industries Pty Ltd 7 158 John Shephard Trailers Pty Ltd 12 311
Roglands Pty Ltd 2 214 Shepherd Foundation Nominees Pty
Rollashield Pty Ltd 28 079 Ltd 33 464
K J Ross Security Locks 3 052 Shepparton Terrazzo Works Pty Ltd 8 647
Rota Pak Industries Pty Ltd 39 730 Signalling Technology Pty Ltd 30 731
Rotary Heat Exchangers Pty Ltd 10 960 Sihi Australia Pty Ltd 6 499
Roundhouse Pacific Pty Ltd 4 490 Sime Darby Australia Ltd 32 164
Rovira Pty Ltd 21 794 Sites Alive Pty Ltd 26 830
Roy el International Pty Ltd 10 932 Colin W Skelton Industries Pty Ltd 12 919 Roy el Micro Systems Pty
Ltd 13 119 Skyrider Productions Pty Ltd 23 503
Helena Rubinstein (NSW) Pty Ltd 23 191 Slowdo Pty Ltd 7 722
Rugalle Pty Ltd 4 606 Smalldaire Pty Ltd 3 559
Ruskin Holdings Pty Ltd 12 900 Smeed Nominees Pty Ltd 40 000
Russell Steel Products 1 714 Sobstad Sailmakers Australia Pty Ltd 41 594

Rust Rid (Australia) Pty Ltd 1 696 James Sokoll Pty Ltd 13 365
 Ryan Marine Products Pty Ltd 17 595 Sokoto Pty Ltd 622
 Ryan Rubber Co Pty Ltd 18 432 Sola Air Pty Ltd 18 766
 Ryan Scaravator Pty Ltd 22 957 Solar & Allied Pty Ltd 16 599
 Ryburn Industries Pty Ltd 11 631 Solutech Food Systems Pty Ltd 19 572
 Ryedale Pty Ltd 31 245 Somerville Engineering Co Pty Ltd 11 535
 Rynaling Pty Ltd 9 864 Sontron Instruments Pty Ltd 13 225
 S A I Pty Ltd 23 893 Sound Genesis Pty Ltd 1 709
 S I E Inc 24 146 The South Australian Malting
 S I E Systems Pty Ltd 40 000 Company Pty Ltd 23 262
 S P A Centre Holdings Pty Ltd 4 988 South Gippsland Milk Industries Ltd 29 983 S and R Laboratories 8
 246 South West Foundry 14 028
 Sacedon Pty Ltd 14 691 Southern Cross Instruments Pty Ltd 5 899
 Sachem Holdings Pty Ltd 15 607 Southern Steeplejacks 9 495
 Safair Investments Pty Ltd 15 485 Source Data (Aust) Pty Ltd 29 824
 Safetyman Signs Pty Ltd 6 688 Space Frame Developments Pty Ltd 9 743
 Salage Pty Ltd 30 564 Spaceframe Rural Buildings Pty Ltd 4 489
 Salon Hair Care Supplies Pty Ltd 1 250 Space Management Pty Ltd 8 433
 Salopia Pty Ltd 1 804 Space Nominees Pty Ltd 40 000
 Sanscord Australia Pty Ltd 16 534 The Spastic Centre of New South Santech Pty Ltd 11 311 Wales 40
 000
 Santorini Pty Ltd 7 230 Spastic Society of Victoria Ltd 19 197
 Sargent & Burton Pty Ltd 40 000 Sparcraft Pty Ltd 19 632
 Sarlon Industries Pty Ltd 36 626 David Spaulding Pty Ltd 14 314
 Pty Ltd 40 000 Specialised Polymer & Equipment Co
 Scientific Industrial Automation Pty Ltd 13 367
 Pty Ltd 16 628 Trevor E Spencer Pty Ltd 3 360

38

APPENDIX A

Company \$ Company \$

Spic N Span Corporation Pty Ltd 12 013 Technical Components Pty Ltd 38 323 Sport Aircraft Pty Ltd 18
 622 Technical Computing & Graphics
 Stainless Tube Mills Pty Ltd State Wide Chemical Industries 17 444 Pty Ltd
 Technical & Research Services 16 727
 Pty Ltd 3 919 Australia Pty Ltd 9 370
 Steamaster Pty Ltd 19 354 Technichem Pty Ltd 3 520
 Steam Holdings Pty Ltd 9 583 Tecnequip Enterprises Pty Ltd 3 263
 Steelcraft Industries 10 112 Techno Engineering Pty Ltd 2 978
 Noel Steele Pty Ltd 5 701 Telelift (Australia) Pty Ltd 6 374
 Steelmax Engineering (Vic) Pty Ltd 3 332 Telspec Pty Ltd 5 424
 Stein Atkinson Stordy (Australia) The Temperature Factory Pty Ltd 5 782
 Pty Ltd 9 365 Tensilglass Pty Ltd 40 000
 Stessl Alloy Craft Intenational Pty Ltd 55 645 W R Terry Fluid Controls Pty Ltd 9 459 Stepart Sales and
 Service Pty Ltd 10 752 Texmar Chemicals Pty Ltd 21 946
 Steric Pty Ltd 8 046 Thangi Pty Ltd (in liquidation) 10 686
 Sterland Bros Pty Ltd 10 098 Thermoline Scientific Equipment
 Stoddart Tiles Pty Ltd 7 545 Pty Ltd 12 046
 Storage Research Pty Ltd 26 554 A T Thorsen Pty Ltd 21 480
 Storm Warning Systems Pty Ltd 5 725 Three Spires Industries Pty Ltd 12 533
 Stramit Industries Ltd 56 928 Timalara Pty Ltd 12 447
 I- & M Strassmeir Industries Pty Ltd 71 168 Tistrions Pty Ltd 5 699

Stratco Metal Pty Ltd 8 369 Titanic Nominees Pty Ltd 2 504
 Strathclyde Pty Ltd 36 181 Tolley's Nurseries Pty Ltd 8 361
 Sun City Air Charter Pty Ltd 15 200 Topology Networking Pty Ltd 21 582
 Sunseeker Investments Pty Ltd 569 A & M Topper Enterprises Pty Ltd 1 583
 Suntron Energy Company Pty Ltd 5 120 Tracker Communications Pty Ltd 40 000 Super Grasse Pty Ltd 34 120 Trade Paints Pty Ltd 14 859
 Superplan Pty Ltd 9 448 Trafalgar Products (Asia) Pty Ltd 1 919
 Swanvale Pty Ltd 6 990 Traffic Equipment Manufacturers 16 752
 S W R Pty Ltd 14 991 Trakka Van Conversions Pty Ltd 16 177
 Sylmore Pty Ltd 3 731 Tranquil Cylinders Pty Ltd 9 570
 Synflex Products Pty Ltd 10 670 Transcrete Pty Ltd 22 270
 Syntex Australia Ltd 20 405 Transfer Mouldings Pty Ltd 6 974
 System One Pty Ltd 24 306 Transformer Products Pty Ltd 20 171
 3A Gamebirds Pty Ltd 37 489 Trans Waste Pty Ltd 24 371
 3C Chemical Laboratories Pty Ltd 2 406 Trend Laboratories Pty Ltd 43 151
 T C G S A M Pty Ltd 2 551 Tri-State Engineering Pty Ltd 9 788
 T C M Pty Ltd 4 630 Tritronics (Australia) Pty Ltd 74 236
 T J M Products Pty Ltd 40 000 Trolley Boomerang Pty Ltd 16 582
 T N T Management Pty Ltd 14 518 Throughmasta Australia Pty Ltd 7 405
 T P W Pty Ltd 16 939 Trygon Laboratories Pty Ltd 5 982
 Tabco Pty Ltd 8 706 Tube & Pipe Pty Ltd 18 498
 Talamor Pty Ltd 8 897 Tully Corporation Pty Ltd 4 475
 Talbingo Nominees Pty Ltd 12 620 A R Turner & Co (Aust) Pty Ltd 15 232
 Tamar Designs Pty Ltd 6 361 A W Tyree Transformers Pty Ltd 16 013
 Taminga Furniture 3 910 Tyrrell's Vineyards Pty Ltd 13 007
 Taragan Pty Ltd 2 385 U F Chemicals (Australia) Pty Ltd 436
 Tantara Pty Ltd 21 735 U P Alternator Systems Pty Ltd 10 349
 Tas Power Equipments Pty Ltd 5 414 Ulco Engineering Pty Ltd 9 104
 J J & A L Tate 3 024 Unique Micro Design Pty Ltd 4 335
 Tavestraw Pty Ltd 6 676 Unique Tooling Pty Ltd 9 768
 Tecasia Pty Ltd 11 956 Uniquip Pty Ltd 5 250

39

APPENDIX A

Company \$ Company \$

United Sports Cars Pty Ltd 80 000 H Webb & Co Ltd 2 820
 Universal Electronics Pty Ltd 17 049 Westaflex (Australia) Pty Ltd 22 505
 Uptons Engineering Pty Ltd 8 286 West Australian Tanners & U-Tile 1 186 Fellmongers Ltd 11 930
 V F J Electronics Pty Ltd 16 712 Westeq (No 1) Pty Ltd 6 077
 G Vaccari & Co (Services) Pty Ltd 14 247 Westuren Pty Ltd 19 997
 Valet Corporation Pty Ltd 40 000 Wheels West Pty Ltd 9 804
 Valita Pty Ltd 10 905 Whiteman's Magic Pty Ltd 3 515
 Valley View Poultry Pty Ltd 15 174 G D & J A Whiter Pty Ltd 8 492
 Vanber Leather Goods 4 008 Wicat Computer of Australia Pty Ltd 38 569
 Vani tone Pty Ltd 30 013 Wiesmayr Holdings Pty Ltd 24 903
 Vernier Engineering Pty Ltd 35 329 Wigmore's Ltd 30 091
 Andrew Vial Film Productions Pty Ltd 268 Wigton Pty Ltd 41 190
 Vicalen Jets Pty Ltd 7 697 Willcox Enterprises Pty Ltd 11 174
 Vicoach Equipment Pty Ltd 3 020 Harry M. Williams Pty Ltd 5 936
 Videolink Pty Ltd 15 424 P J Williams (Holdings) Pty Ltd 15 236

Video Systems (North West) Pty Ltd 14 815 Wilson Hot Water Solar Systems Video Transfer Services Pty Ltd 17 530
Pty Ltd 5 371

Vinyl Products International Pty Ltd 3 594 Wilson Manufacturing Pty Ltd 40 000 Vipac & Partners Pty Ltd 26 413 Alexander Wilson Pty Ltd 11 063

Viscount Consolidated Industries R L Windsor & Son Pty Ltd 33 669

Pty Ltd 13 091 J D Wishart & Co Pty Ltd 15 060

Vision Control Pty Ltd 11 083 Withereed Oil Refiners Pty Ltd 14 Oil

W B M Data Systems Pty Ltd 2 804 Wood & Grieve Pty Ltd 12 098

W I C Pty Ltd 5 441 Woodfast Machinery Company 34 696

W J Electromation Pty Ltd 5 323 H W Woods Pty Ltd 5 120

Waikerie Producers Sales Paul Wright Pty Ltd 11 660

Co-operative Ltd 3 635 Wye Investments Pty Ltd 8 724

Waite & Co Pty Ltd 11 964 Wyntech Consolidated Pty Ltd 40 000

William Wallbank & Sons Pty Ltd 11 460 Yewers Tractor Industries Pty Ltd 24 012 E S Walker Manufacturing Co Pty Ltd 22 547 Yolanda Pty Ltd 2 650

N A Walker Pty Ltd 1 659 York Foods Pty Ltd 1 025

Wallace Engineering Pty Ltd 3 215 Young's Animal Health Pty Ltd 12 805

L J Wallace Group 10 156 Zener Electric Pty Ltd 20 202

R J Wallace Pty Ltd 3 447 Zephyr Electronics Pty Ltd 6 082

Waters Associates Pty Ltd Watkin Elliott Systems Engineers 33 439 Zeus Industries Pty Ltd 2 500

Pty Ltd Wear Resistant Materials Pty Ltd 546 34 672

Total 16 261 722

40

APPENDIX B

GRANT PAYMENTS FROM 1984-85 FUNDS

PROJECT GRANTS

Company \$ Company \$

ACI Australia Ltd 62 600

A I S Holdings Pty Ltd 5 000

The ANI Corporation Ltd 743 684

A P V Bell Bryant Pty Ltd 400 000

ASEA Pty Ltd 430 000

Access Control Systems (Australia) Pty Ltd 50 350

ACE-T Pty Ltd 351 250

Actrol Industries Pty Ltd 324 200

Aegis Pty Ltd 105 700

Air International Pty Ltd 65 500

Albright & Wilson (Australia) Ltd 157 000 Aldetec Pty Ltd 62 000

A1 farm Industries Pty Ltd 58 000

Allco Steel Corporation Pty Ltd 50 000 J N Almgren Pty Ltd 97 000

Alphafarm Pty Ltd 150 000

Amalgamated Wireless (Australasia) Ltd 68 050

Analytical Instruments Pty Ltd 5 000 Andrew Corporation 714 500

Anpress Pty Ltd 23 000

Ansett Transport Industries (Operations) Pty Ltd 127 000

APCEL Pty Ltd ' 25 600

Applied Measurement Australia Pty Ltd 10 000

Apollo Nominees Pty Ltd 3 925

Aquagenics Pty Ltd 32 000

Armstrong Nylex Pty Ltd 30 000

Ashland Chemicals (Asia) Pty Ltd 129 383 Atco Industries (Aust) Pty Ltd 24 750
Auditel Systems Pty Ltd 57 300
Ausdata Pty Ltd 178 000
Ausonics Pty Ltd 285 000
Austgen-Biojet International Pty Ltd 128 000 Colin Austin R&D Pty Ltd 125 700
Austral Pacific Fertilizers Ltd 19 442
The Australian Acoustic Co Pty Ltd 11 000 Australian Biomedical Corporation Ltd 390 400
Australian Farm Machinery Pty Ltd 65 000 Australian Fertilizers Ltd 22 150
Australian industrial Electronics Pty Ltd 21 500
The Australian Mineral Development Laboratories 151 050
Australian Mineral Industries Research Assoc Ltd 282 150
Australian Monoclonal Development Pty Ltd 287 000
Australian N C Automation Pty Ltd 91 000 Australian Wire Industries Pty Ltd 24 146 Automation
Technology Pty Ltd 45 000 BWD Instruments Pty Ltd 20 247
Babcock Australia Ltd 34 000
Backwell-IXL Pty Ltd 55 200
Baker Perkins Pty Ltd 23 500
Banson Nominees Pty Ltd 12 000
B Barber & Sons Pty Ltd 10 000
bbj Computer Services Pty Ltd 27 900
Beasley Industries Pty Ltd 52 791
Bell-IRH Pty Ltd 35 300
Bendale Holdings Pty Ltd 75 000
Bepla Pty Ltd 109 550
Berger Software Pty Ltd 81 900
Bioclone Australia Pty Ltd 270 300
Biocontrol Ltd 32 000
Biological Research & Technology Pty Ltd 73 000
Biomecca Management Pty Ltd 12 300
Biotechnology Australia Pty Ltd 192 850 Bonar Stanger Ltd 19 000
Bonds Coats Patons Pty Ltd 2 379
The Boots Company (Australia) Pty Ltd 12 550
Borg-Wamer (Aust) Ltd 190 000
Botanochem Pty Ltd 13 000
Branch & Associates Pty Ltd 130 000
Bridges Corporation Pty Ltd 162 500
British Paints (Australia) Pty Ltd 58 300 The Broken Hill Pty Co Ltd 625 300
David Brown Gear Industries Pty Ltd 108 050 Brown Boveri (Australia) Pty Ltd 14 000 Bunge (Australia)
Pty Ltd 286 250
Bum Brite Lights (Vic) Pty Ltd 8 600
Bums Philp and Co Ltd 169 000
Business Micros Pty Ltd 19 650
Byrne & Davidson Doors (NSW) Pty Ltd 107 350
C V Oils Pty Ltd 30 000
Cable Makers Australia Pty Ltd 110 400 Camerronics Australia Pty Ltd 30 000
Captec Pty Ltd 246 000
Carr Boyd Minerals Ltd 100 000
Case Communication Systems Ltd 40 000 Chamber Ridge Pty Ltd 22 000
Chan Computing Services Pty Ltd 41 180

APPENDIX B

Company \$ Company \$

Checker Flag Miniature Raceways D-Tech Pty Ltd 64 000

Pty Ltd 28 000 Dunlop Olympic Ltd 73 000

Chemcor Pty Ltd 13 000 E R D Pty Ltd 63 000

Chemorganic Industries Pty Ltd 9 100 Eastcrane International Pty Ltd 271 850 Circular Head Energy Supplies Ecotech Pty Ltd 27 000

Pty Ltd 30 500 The Efco Manufacturing Company

Î- I Clements Pty Ltd 6 000 Pty Ltd 2 292

Cleveland Tin Ltd 200 000 Ego Pharmaceuticals Pty Ltd 29 600

Clifden Engineering Co Pty Ltd 5 000 Eight Mile Creek Cheese Pty Ltd 24 000 Coalscan Pty Ltd 69 000 Electrolytic Zinc Company of

Cochlear Pty Ltd 190 000 Australasia Ltd 93 500

Cockajemmy Pty Ltd 60 000 Dale B Elphinstone Pty Ltd 37 600

Codan Pty Ltd 107 000 Elroy Engineering Pty Ltd 17 000

Colours and Chemicals Pty Ltd 32 300 Email Ltd 33 000

Comalco Aluminium Ltd 166 000 Enaco (Australia) Pty Ltd 60 600

Comlabs Pty Ltd 117 600 Fairlight Instruments Pty Ltd 176 000

Commercial Polymers Pty Ltd 47 000 Fielder Gillespie Davis Ltd 160 250

Communitron (Aust) Pty Ltd 30 000 Finite Development Pty Ltd 18 000

Computer Power Pty Ltd 387 500 Flexible Automation Pty Ltd 73 000

Connellan Nominees Pty Ltd 21 360 Flexdrive Industries Ltd 26 000

Consolidated Electronic Industries Foseco Pty Ltd 5 000

Pty Ltd 92 000 Furley Pty Ltd 34 500

Consolidated Fertiliser Sales Pty Ltd 118 861 Future Business Systems Pty Ltd 77 000 Consolidated Technology (Aust) Futuretech Pty Ltd 93 000

Pty Ltd 4 000 G B C Scientific Equipment Pty Ltd 196 400

Contrec Systems Pty Ltd 30 625 G E C Australia Ltd 97 875

Conveyor Co of Australia Pty Ltd 36 350 G E Plastics (Aust) Pty Ltd 66 800

Cordis Bio-Synthetics Inc 125 000 Gardner Bros & Perrott (WA) Pty Ltd 6 000 Costec Pty Ltd 80 000 Garwood Packaging Pty Ltd 164 450

Craven Elliston & Hayes Pty Ltd 69 200 General Furnace Construction Pty Ltd 54 600 Currumbin Minerals Pty Ltd 100 000 Geo Logics Pty Ltd 75 000

Cyanamid Australia Pty Ltd 255 000 Gibson Chemicals Ltd 40 000

Cybernetics Control Pty Ltd 73 000 Glaxo Australia Pty Ltd 52 000

D W Sales Pty Ltd 10 702 Godfrey Hirst Australia Pty Ltd 81 000

Dallas Holdings Pty Ltd 10 650 R M Gow & Co Ltd 6 000

Daneva Australia Pty Ltd 25 000 Graham Group 49 050

Datacraft (Aust) Pty Ltd 365 350 Greencorp Magnetics Pty Ltd 90 967

Davey Pumps Pty Ltd 8 241 Griffiths & Beerens Pty Ltd 26 000

Defiance Milling Co Pty Ltd 13 000 Gunn & Hiskens Pty Ltd 11 450

Delairco Bartrol Pty Ltd 37 000 HP Products Pty Ltd 2 828

Denison Resources N L 190 750 Halley & Mellowes Pty Ltd 23 000

Design Two Thousand Pty Ltd 64 000 Hamersley Iron Pty Ltd 6 380

Destination Projects Pty Ltd 65 000 Harbour & Marine Engineering Dewar Electronics Pty Ltd 61 500 Pty Ltd 51 000

The Dewhirst Corporation Pty Ltd 43 000 Hardboards Australia Ltd 24 560

Diamond Air Conditioning James Hardie Brakes Pty Ltd 293 800

Manufacturers Pty Ltd 130 100 James Hardie Irrigation Pty Ltd 96 050

The Dindima Group Pty Ltd Dobbie Instruments (Australia) 55 700 David Hartley Development Pty Ltd Hawker De Havilland Australia

94 588

Pty Ltd 61 050 Pty Ltd 7 356

Domedica Pty Ltd Dominant (Australia) Pty Ltd 36 000 17 450

W H Heck & Sons Pty Ltd 26 000

42

APPENDIX B

Company \$ Company \$

Henderson's Federal Spring Works Pty Ltd 74 000

Heyden-Spike Co Pty Ltd 52 000

Hills Industries Ltd 38 000

James Howden Australia Pty Ltd 295 850 Hughes Technology Pty Ltd 100 000 Humes Ltd 9000

Hu-Metal Engineering Pty Ltd 168 500 Hunter Douglas Ltd 40 000

Hunting-Begley Engineering Services Pty Ltd 30 713

Hydrological Services Pty Ltd 126 000 I C I Australia Operations Pty Ltd 82 600 Industria Pty Ltd 20 550

Industrial Galvanizers Pty Ltd 169 650 Information Engineering (Australia) Pty Ltd 261 100

Ingersoll Rand (Australia) Ltd 8 117

Insulco Pty Ltd 70 050

Integrated Silicon Design Pty Ltd 84 000 Interactive Engineering Pty Ltd 132 000 International Adhesives & Resins Pty Ltd 22 000

International Catamarans Pty Ltd 150 000 Intra Optics Laboratories Pty Ltd 35 000 Ionode Pty Ltd 35 286

Jay bee Engineering Pty Ltd 16 000

John Valves Pty Ltd 34 000

Joy Manufacturing Company Pty Ltd 175 000 Jumbo Toys Pty Ltd 23 600

Kambrook Distributing Pty Ltd 59 000 Kel Aerospace Pty Ltd 68 197

Kemcon Pty Ltd 77 300

Kilpatrick Green Pty Ltd 145 000

Kimberley Seeds Pty Ltd 78 100

James N Kirby Products Pty Ltd 9 084 Koranya Enterprises Pty Ltd 90 000

Krupp (Australia) Pty Ltd 90 000

Julius Kruttschnitt Mineral Research Centre 60 000

Laser Lab Holdings Pty Ltd 7 600

Laser Lab Ltd 235 900

L and L Australia Pty Ltd 90 500

Leeds & Northrup Australia Pty Ltd 200 000 Leeton Steel Works Pty Ltd 19 500

Leetronics Communications Pty Ltd 42 000 Lend Lease Technology Pty Ltd 26 700 Leonard Chemical Products Pty Ltd 17 000 Lift Manufacturers Association of

Australia Ltd 4 509

Lindgren Holdings Pty Ltd 2 190

John Lysaght (Australia) Ltd 91 050

Mcllwraith-Davey Pty Ltd 148 500

Ralph McKay Ltd 53 750

W M McQueen & Co Pty Ltd 208 050

Maclagan Wright & Associates Pty Ltd 37 000

Maquarie Worsteds Ltd 15 600

Madad Pty Ltd 22 000

Hugh Manning Pty Ltd 71 300

Manpath Pty Ltd 60 000

Marlin Manufacturing (NSW) Pty Ltd 82 000 Massey-Ferguson (Aust) Ltd 142 900 Maxwell Chemicals Pty Ltd 17 118

May & Baker Australia Pty Ltd 118 000 Medefield Pty Ltd 16 500

Melbourne House (Aust) Pty Ltd 25 000 Memtec Ltd 86 850

Mentat Manufacturing Solutions Pty Ltd 91 200
Mercury Weighing and Control Systems Pty Ltd 25 000
Merino Wool Harvesting Pty Ltd 181 475 Metals Exploration Ltd 20 000
Mica Pty Ltd 17 990
Micropro Design Pty Ltd 51 950
Miles Laboratories Australia Pty Ltd 63 000 Millkraft Thompson Boatyards Pty Ltd 19 091
Milne Feeds Pty Ltd 30 000
Mincom Pty Ltd 177 700
Mineral Deposits Ltd 34 300
Mineral Research & Development Pty Ltd 88 000
Minicom (International) Pty Ltd 305 700 Minitronics Pty Ltd 48 000
Minpro Pty Ltd 26 400
Mirotone Pty Ltd 30 000
Molasses Products Corporation Pty Ltd 282 000
Monier Ltd 141 500
Monocure Pty Ltd 10 000
Monsanto Australia Ltd 7 451
Morlynn Ceramics Pty Ltd 9 044
Motorola Australia Pty Ltd 167 800
Mount Isa Mines Ltd 189 750
The Mount Lyell Mining & Railway Company Ltd 2 702
Mount Morgan Ltd 4 800
Munusu Pty Ltd 12 840
NR Pty Ltd 33 100
Narra Pty Ltd 15 000
Natron Corporation Pty Ltd 12 200
Neumann Equipment Pty Ltd 20 000
43

APPENDIX B

Company \$ Company \$

Nicholls Engineers Pty Ltd 20 000 Repco Ltd 284 290
Nilcra Ceramics Pty Ltd 968 500 Ricegrowers Co-op Mills Ltd 135 361
Nilsen Electrical Industries Pty Ltd 25 000 Richter Machinery (Aust) Pty Ltd 104 098 Nonporite Pty Ltd 3 456 Robotnik Pty Ltd 70 000
Norco Co-Operative Ltd 23 000 Romar Engineering Pty Ltd 26 391
Notera Lisa Nominees Pty Ltd 121 950 Rotair Pty Ltd 21 918
P J O'Connell & Coy Pty Ltd 40 000 Rover-Scott Bonar Ltd 1 900
Onga Pty Ltd 102 950 Royel International Pty Ltd 83 250
Orbital Engine Co Pty Ltd 820 000 Rural Chemical Industries Pty Ltd 10 500 Ortex Australia Pty Ltd 103 000 S G E Manufacturing Pty Ltd 119 041
Osiris Technology Pty Ltd 92 100 SIE Inc 47 000
Pacific Communications Pty Ltd 50 850 SLE Medical Pty Ltd 20 000
Palmer Tube Mills (Aust) Pty Ltd 118 500 S V Engine Co Pty Ltd 237 400
Pan-Tech Engineering Services SWR (Aust) Pty Ltd 136 150
Pty Ltd 7 500 R P Scherer Pty Ltd 32 500
Paykel Oils & Chemicals (Aust) Edmund Schneider Pty Ltd 28 000
Pty Ltd 6 000 Scientech Pty Ltd 69 500
Peko Wallsend Operations Ltd 5 100 Scientific Industrial Automation Penfolds Wines Pty Ltd 2 500 Pty Ltd 126 350
Petreve Pty Ltd 182 177 Sebel Furniture Ltd 138 550

Philips Communication Systems Ltd 32 000 Sectors Pty Ltd 407 500

Photron Pty Ltd 16 000 Sedco Pty Ltd 21 250

Phosphate Mining Company of Sepac Industries (Australia) Pty Ltd 101 000 Christmas Island Ltd 160 000 John Shearer Ltd 18 000

Pilon Plastics Pty Ltd 13 000 Signalling Technology Pty Ltd 8 700

Polycane Furniture Pty Ltd 105 200 Silenus Instruments Pty Ltd 127 000

Poly Pacific Pty Ltd 150 000 Simpson Ltd 40 000

Port-o-Kiln (Aust) Pty Ltd 2 318 Sirius Scientific Pty Ltd 8 655

Poul Kirk Electronics Pty Ltd 33 000 Ski-Ace Pty Ltd 54 950

Power Semiconductors (Australia) S Smith & Son Pty Ltd 15 000

Pty Ltd 225 547 Sola Air Pty Ltd 50 000

Precision Paper Coatings Pty Ltd 75 800 Sola Optical Australia Pty Ltd 282 939 Precision Valve Australia Pty Ltd 13 150 Southern Cross Laboratories Pty Ltd 24 100 Professional Australian Systems Southern Wool Processors Pty Ltd 191 789 Pty Ltd 116 000 Space Nominees Pty Ltd 50 000

Prototypes Design Pty Ltd 27 650 State Engineering Works of Western Pyrecon Pty Ltd 25 000 Australia 88 200

Pyropanel Developments Pty Ltd 45 000 Stolkraft Production Pty Ltd 217 000 Pyrox Ltd 2 500 Storage Research Pty Ltd 111 000

Q Engineering Services Pty Ltd 12 819 A Strazdins Pty Ltd 8 600

The Queensland Farmers Co- Sugar Research Ltd 176 333

operative Association Ltd 41 697 Sulphide Corporation Pty Ltd 3 560

Queensland Rubber Company Pty Ltd 35 000 Sutton Tools Pty Ltd 110 000

Quentron Electronics Pty Ltd 123 725 Swan Portland Cement Ltd 10 388

Quentron Optics Pty Ltd 95 675 Synchrotac Middleton Instruments RMD Electronics Pty Ltd 21 300 Pty Ltd 137

Radiation Research Pty Ltd 65 700 Systems Technology Pty Ltd 63 000

Raffles Paints Australia Pty Ltd 45 000 TBC Pty Ltd 6 858

Ran Data Pty Ltd 191 542 TCS Container Pty Ltd 22 000

Rast Patent Manufacturers Pty Ltd 7 500 TNT Management Pty Ltd 160 350 Reefdale Pty Ltd 3 050 Table Talk Poultry Farms Ltd 58 300

Rein Pty Ltd 118 550 Tamper Australia Pty Ltd 28 000

44

APPENDIX B

Company \$ Company \$

Tantara Pty Ltd 165 000 Vinidex Tubemakers Pty Ltd 41 100

Tecalemit (Australasia) Pty Ltd 26 000 Vipac Holdings Pty Ltd 93 200

Telectronics Pty Ltd 1 273 950 Vision Systems Pty Ltd 180 400

I J & L A Tetley Manufacturing Vitapharm Pharmaceutical Pty Ltd 80 000

Pty Ltd 9 133 W A Chip & Pulp Co Pty Ltd 68 750

Texas Instruments Australia Ltd 85 200 W B M Data Systems Pty Ltd 7 000

A G Thompson Pty Ltd 7 350 Walkers Ltd 26 000

A G Thompson & Co (SA) Pty Ltd 38 000 Waminga Pty Ltd 30 000

Thom EMI Electronics Australia Waproo Pty Ltd 8 200

Pty Ltd 280 000 Webster Computer Corporation

Thycon Systems Pty Ltd Time Office Computer

54 750 Pty Ltd

Welding Industries of Australia 74 300

(Manufacturing) Pty Ltd 650 000 Pty Ltd 162 500

Tioxide Australia Pty Ltd 14 946 Wellcome Australia Ltd 53 300

Toms Tyres Corporation Ltd 30 000 Westeq (No 1) Pty Ltd 102 350

Toowoomba Foundry Pty Ltd 63 000 George Weston Foods Ltd 39 337

Torrens Industries Pty Ltd 31 500 Williames Hi-Tech International Townsend Chemicals Pty Ltd 17 000
Pty Ltd 46 500

Troll Pty Ltd 24 025 Wilson Manufacturing Pty Ltd 139 000

F R Tulk & Co Pty Ltd 60 000 Windrush Nominees Pty Ltd 14 500

A R Turner & Co (Aust) Pty Ltd 51 950 R L Windsor & Son Pty Ltd 55 000

Uitrapore Pty Ltd 140 800 Woddens Nominees Pty Ltd 106 300

Unilever Australia Pty Ltd 111 000 Woolbatts Australia Pty Ltd 40 000

United Doormakers (Vic) Pty Ltd 20 000 Woodlawn Mines 20 000

Universal Engineering Development Wormald International (Aust) Pty Ltd 76 000 Co Pty Ltd 115 000
Wrightcel Ltd 15 000

Vaccines Pty Ltd 147 475 Yeo-Kal Electronics Pty Ltd 25 000

Van Leer Australia Pty Ltd 37 875 Yorkshire Chemicals Pty Ltd 60 000

Varian Techtron Pty Ltd 227 725 Henry Young & Sons Pty Ltd 20 000

Versatile Toft Ltd 1 400 Zenford Ziegler Pty Ltd 11 095

Vessey Chemicals Pty Ltd 38 000 Zip Heaters (Aust) Pty Ltd 24 664

Vickers Australia Ltd Victorian Chemical Company Pty Ltd Victorian Hide & Skin Producers

174 759 15 000 Zylab Australia Pty Ltd 22 400

Pty Ltd Vida-Weld Pty Ltd

38 000 40 000 Total 38 125 967

45

APPENDIX C

PROJECT GRANT PAYMENTS FROM 1984-85 FUNDS BY CLASS OF INDUSTRIAL ACTIVITY (CLASSIFIED BY THE INTERNATIONAL PATENT CLASSIFICATION SYSTEM)

Payments \$

Agriculture A01 Agriculture; forestry; animal husbandry; hunting; trapping; fishing

Foodstuffs and tobacco A21 Baking; edible doughs A23 Foods or foodstuffs; their treatment not included in other classes Personal and domestic articles A43 Footwear A47 Furniture; domestic articles or appliances;

coffee mills; spice mills; suction cleaners in general Health and amusement A61 Medical and veterinary science; hygiene

A62 Life-saving; fire-fighting A63 Sports; games; amusements Separating and mixing BO I Physical or chemical processes or apparatus

in general

B02 Crushing, pulverising or disintegrating; preparatory treatment of grain for milling B03 Separation of solid materials using liquids or using pneumatic tables or jigs; magnetic

or electrostatic separation B04 Centrifugal apparatus or machines for carrying out physical or chemical processes B05 Spraying or atomising in general; applying

liquids or other fluent materials to surfaces in general Shaping B21 Mechanical metal-working without essentially

removing material; punching metal B22 Casting; powder metallurgy B23 Machine tools; metal-working not otherwise provided for

B25 Hand tools; portable power-driven tools; manipulators B26 Hand cutting tools; cutting machines or devices not specially adapted for particular

materials or purposes B27 Working or preserving wood or similar material; nailing or stapling machines in general

B29 Working of plastics; working of substances in a plastic state in general; working of substances not otherwise provided for

B31 Making paper articles; working paper B32 Layered products

46

1 602 739

49 750 452 348

8 200 160 550

3 664 458 7 790 91 350

971 250

97 367

172 137

488 500

104 342

533 050

158 200 434 045

80 000

206 289

212 100

652 100

12 000 7 356

APPENDIX C

Payments \$

Printing B41 Printing; lining machines; typewriters; stamps Transporting

B60 Vehicles in general B61 Railways B62 Land vehicles for travelling otherwise than on rails

B63 Ships or other waterborne vessels; related equipment B64 Aircraft; aviation; cosmonautics B65
Conveying; packing; storing; handling thinor filamentary material B66 Hoisting; lifting; hauling Chemistry CO1 Inorganic chemistry C02 Treating
water, waste water and sewage C03 Glass; mineral and slag woolC04 Cements; ceramics, etc.; sound or thermal insulating materials COS Manufacture of fertilisers CO?
Organic chemistry COS Organic macromolecular compounds; theirpreparation or chemical working-up; compositions based thereon C09 Dyes; paints; polishes; natural
resins; adhesives; miscellaneous compositions;miscellaneous applications of materials C10 Petroleum, gas and coke industries; technical gases
containing carbon monoxide;fuels; lubricants; peat CI 1 Animal and vegetable oils, fats, fatty substances and waxes; fatty acids
therefrom;detergents; candles C12 Fermentation industry; beer; spirits; wine; vinegar; yeast C 13 Sugar or starch
industry C14 Skins; hides; pelts; leatherMetallurgy C21 Metallurgy of iron C22 Metallurgy; ferrous or non-ferrous alloys; treatment of alloys or
non-ferrous metalsC23 Working or treatment of metals, other than by mechanical means; covering materials with metals;
inhibiting corrosion or incrustation in general C25 Electrolytic or electrophoretic processes;

apparatus therefor

18 650

385 250 587 308 1 400

556 691

28 000 1 213 225

20 009

533 313 89 000 70 050 1 075 932

261 552 89 000 327 590

474 739

121 500

168 450

1 090 273

91 828 98 000

199 734 568 102

264 196

295 750

47

APPENDIX C

Payments \$

Textiles and flexible materials not otherwise provided for D01 Natural or artificial threads or fibres; spinning 103 850

D05 Sewing; embroidering; tufting 2 379

D06 Treatment of textiles, etc.; laundering; 121000

flexible materials not otherwise provided for Building E01 Construction of roads, railways and bridges 203 700

E02 Hydraulic engineering; foundations; 186 450

soil-shifting

E04 Building 714 762

E06 Doors, windows, shutters or roller blinds in 172 350

general; ladders

Mining E21 Mining 243 313

Engines and pumps F01 Machines of engines in general; engine 43 100

plants in general; steam engines F02 Combustion engines; hot-gas or combustion- 1 066 484

product engine plants F04 Positive-displacement machines for liquids; 210 109

pumps for liquids or elastic fluids Engineering in general F16 Engineering elements and units; general 734 300

measures for producing and maintaining effective functioning of machines or installations Lighting and heating F21 Lighting 8 600

F22 Steam generation 25 000

F23 Combustion apparatus; combustion processes 69 900

F24 Heating; ranges; ventilating 135 155

F25 Refrigeration or cooling; manufacture or 130 100

storage of ice; liquefaction or solidification of gases F27 Furnaces; kilns; ovens; retorts 69 758

Instruments G01 Measuring; testing 2 826 432

G02 Optics 53 000

G03 Photography; cinematography; electrography; 30 000

holography

G05 Controlling; regulating 1715 941

G06 Computing; calculating; counting 4 238 108

G07 Checking devices 143 350

G08 Signalling 683 750

G10 Musical instruments, acoustics 110 000

G11 Information storage 92 967

48

APPENDIX C

Payments \$

Electricity HOI Basic electric elements 1 131 053

H02 Generation, conservation or distribution of electric power

655 375

H03 Basic electronic circuitry 879 897

H04 Electric communication techniques 1 911 291

H05 Electric techniques not otherwise provided for

246 960

Total 38 125 967

49

APPENDIX D

PROJECT GRANT AGREEMENTS SIGNED IN 1984-85

ACE-T Pty Ltd ACI Homes Pty Ltd A I S Holdings Pty Ltd The ANI Corporation Ltd

APV Bell Bryant Pty Ltd Access Control Systems (Australia) Pty Ltd Actrol Industries Pty Ltd

Aegis Pty Ltd Air International Pty Ltd Albright & Wilson (Australia) Ltd Analytical Instruments Pty Ltd
 Andrew Corporation Ansett Transport Industries (Operations) Pty Ltd Applied Measurement Australia Pty
 Ltd Aquagenics Pty Ltd

Amott's Biscuits Pty Ltd Auditel Systems Pty Ltd Ausdata Pty Ltd Austral Pacific Fertilizers Ltd
 Australian Acoustic Company Pty Ltd Australian Biomedical Corporation Ltd

Australian Farm Machinery Pty Ltd Australian Fertilizers Ltd Australian Industrial Electronics Pty Ltd
 Australian Mineral Development Laboratories

Australian Mineral Industries Research Assoc Ltd

Australian N C Automation Pty Ltd

Australian Wire Industries Pty Ltd BWD Instruments Pty Ltd Backwell-IXL Pty Ltd Banson Nominees Pty
 Ltd Beasley Industries Pty Ltd Bell-IRH Pty Ltd Bendale Holdings Pty Ltd Bepla Pty Ltd

Berger Software Pty Ltd Beta-Carotene Industries Pty Ltd Bioclone Australia Pty Ltd The Boots Company
 (Australia) Pty Ltd Botanochem Pty Ltd

um grant provided \$

Intended date of completion

627 900 31.12.86

71 050 30.6.85

22 200 30.6.85

216 050 30.6.86

438 450 31.12.86

326 300 30.6.86

116 500 31.7.85

64 950 31.12.85

121 600 31.10.85

299 100 30.11.86

130 700 31.12.85

122 800 30.9.86

450 200 30.6.87

12 550 30.6.85

893 500 30.9.86

250 000 31.1.88

34 000 30.6.85

42 200 31.1.85

168 000 30.6.86

133 200 31.12.86

179 650 31.7.85

22 000 30.6.85

154 200 31.7.88

101 600 30.9.85

250 (XX) 30.9.86

37 150 30.6.85

117 250 31.8.85

77 550 30.9.85

33 450 30.6.86

15 850 31.3.85

359 700 31.12.87

105 350 31.12.85

222 250 30.9.86

202 000 30.6.86

52 700 30.9.85

53 500 30.6.86

40 750 31.12.86

36 500 30.9.85

175 000 31.3.87

42 000 31.3.85

72 800 30.6.86

95 750 30.6.86

258 500 31.12.87

287 700 30.6.89

187 450 31.10.86

635 600 30.6.88

499 650 30.6.86

15 050 31 8.85

25 950 30.9.85

50

APPENDIX D

Maximum grant provided \$

Intended date of completion

Branch & Associates Pty Ltd 145 500 30.11.85

British Paints (Australia) Pty Ltd 156 050 31.12.86

The Broken Hill Proprietary Co Ltd 225 700 28.2.86

356 200 31.3.87

495 400 31.12.87

David Brown Gear Industries Pty Ltd 223 650 30.6.86

Bunge (Australia) Pty Ltd 30 750 31.12.86

414 000 31.12.85

Business Micros Pty Ltd 33 400 30.6.85

Byrne & Davidson Doors (NSW) Pty Ltd 137 350 31.12.85

CV Oils Pty Ltd 35 000 30.6.85

Cable Makers Australia Pty Ltd 194 000 31.12.86

Captec Pty Ltd 300 000 30.6.85

Case Communication Systems Ltd 55 550 30.6.85

Chamber Ridge Pty Ltd 27 500 30.4.85

Chemcor Pty Ltd 31 000 30.4.87

I Clements Pty Ltd 10 250 31.7.85

Cochlear Pty Ltd 367 200 30.6.86

Codan Pty Ltd 500 450 31.12.86

Com labs Pty Ltd 394 450 30.6.87

Computer Power Pty Ltd 350 000 30.9.85

Connellan Nominees Pty Ltd 148 460 30.6.88

Consolidated Electronic Industries Pty Ltd 172 000 31.8.85

Consolidated Fertilizer Sales Pty Ltd 118 550 31.10.87

Contrec Systems Pty Ltd 38 425 31.12.85

Conveyor Co of Australia Pty Ltd 68 700 31.12.85

Costec Pty Ltd 335 000 30.6.87

Craven Elliston & Hayes Pty Ltd 117 000 30.6.86

Cyanamid Australia Pty Ltd 402 650 31.8.86

Dallas Holdings Pty Ltd 35 050 31.12.85

Datacraft (Aust) Pty Ltd 859 500 31.10.87

Defiance Milling Co Pty Ltd 74 250 31.12.85

Denison Resources N L 345 250 30.6.86
 220 500 30.6.86
 Design Two Thousand Pty Ltd 138 800 31.12.86
 Dessa Pty Ltd 61 800 31.5.86
 Dewar Electronics Pty Ltd 175 000 31.12.86
 Diamond Air Conditioning Manufacturers Pty Ltd 308 450 30.6.86
 Dobbie Instruments (Australia) Pty Ltd 71 900 31.12.85
 Dominant (Australia) Pty Ltd 19 800 31.3.86
 Eastcrane International Pty Ltd 463 000 31.12.86
 Electrolytic Zinc Company of Australasia Ltd 175 500 30.6.87
 Dale B Elphinstone Pty Ltd 101 850 30.6.86
 Email Ltd 288 600 31.12.87
 Fielder Gillespie Davis Ltd 121 050 30.6.86
 Flexible Automation Pty Ltd 78 150 30.6.85
 Furley Pty Ltd 107 800 31.7.86
 Future Business Systems Pty Ltd 100 000 31.12.85
 Futuretech Pty Ltd 235 150 30.10.86
 GBC Scientific Equipment Pty Ltd 250 000 30.6.87
 GEC Australia Ltd 211 050 31.3.87

51

GE Plastics (Australia) Pty Ltd Garwood Packaging Pty Ltd Godfrey Hirst Australia Pty Ltd Graham Group
 Gunn & Hiskens Pty Ltd James Hardie Brakes Pty Ltd Jaines Hardie Irrigation Pty Ltd W H Heck & Sons
 Pty Ltd Heyden Spike Co Pty Ltd James Howden Australia Pty Ltd Hu-metal Engineering Pty Ltd
 Hydrological Services Pty Ltd ICI Australia Operations Pty Ltd Industria Pty Ltd Industrial Galvanizers Pty
 Ltd

APPENDIX D

Information Engineering (Australia) Pty Ltd Insulco Pty Ltd Integrated Silicon Design Pty Ltd
 International Adhesives & Resins Pty Ltd International Catamaran Pty Ltd Intra Optics Laboratories Pty
 Ltd
 Ionode Pty Ltd Jumbo Toys Pty Ltd Kilpatric Green Pty Ltd Kimberley Seeds Pty Ltd James N Kirby
 Products Pty Ltd Krupp (Australia) Pty Ltd Julius Kruttschnitt Mineral Research Centre Laser Lab Holdings
 Pty Ltd
 Leonard Chemical Products Pty Ltd Lift Manufacturers Association of Australia Ltd John (Australia) Ltd
 McIlwraith-Davey Pty Ltd W M McQueen & Co Pty Ltd MacLagan Wright & Associates Pty Ltd Macquarie
 Worsteds Ltd Manpath Pty Ltd Marlin Manufacturing (NSW) Pty Ltd Massey-Ferguson (Aust) Ltd
 May & Baker Australia Pty Ltd Memtec Ltd Mentat Manufacturing Solutions Pty Ltd Micropro Design Pty
 Ltd Mincom Pty Ltd Mineral Deposits Ltd Minicom International Pty Ltd Mirotone Pty Ltd

52

Maximum grant provided \$
 26 700 267 550 553 850 110400
 118 050 24 300 387 000 146 900
 64 350 281 500 359 900 167 800
 129 850 204 800 30 900 206 700 545 400
 93 650 182 000 88 000 289 000 308 750 207 650
 62 600 45 550 150 000 160 250 348 600
 111 750 121 650 150 000 82 700
 46 000 4 509 209 900 300 000 412 250
 77 000 23 700 215 200 97 900
 100 700 57 600 570 000 1 006 200
 163 500 57 900 177 700 49 900 498 600
 115 450
 Intended date of completion
 30 .9.85 31.12.86 31.3.87 31.10.85

31.1.86 30.6.86 30.9.86 30.4.86 30.6.86 30.11.86
 30.6.86 31.3 .85 31.12.85 30.6.87
 31.3.86 31.12.85 30 .6.87 31.3.86
 30 .6.86 31.12.86 30.6.86 31.12.86
 30.4.88 30.6.86 30 . 11.86 30 .6.85
 30.9.86 30 .6.86 31.3 .85 30.6.85 31.3.86 31.8.85 30.4.86 31.12.83
 30.6.86 30 .6.87 30 .6.87 31.12.85 31.12.85
 14.11.85 31.3.85 31.8.88 30.9.86 31.12.87
 30.6.89 31.3.87 30 .9.85 31.12.84
 30 .6.86 30.6.86 31.5.86

Molasses Products Corporation Pty Ltd Monier Ltd

Motorola Australia Pty Ltd Mount Isa Mines Ltd NR Pty Ltd N arra Pty Ltd

APPENDIX D

Nicholls Engineers & Constructors Pty Ltd Nilcra Ceramics Pty Ltd Â·

Notera Lisa Nominees Pty Ltd Onga Pty Ltd

Osiris Technology Pty Ltd 1 Palmer Tube Mills (Aust) Pty Ltd

Petreve Pty Ltd Poly Pacific Pty Ltd Power Semi-Conductors (Australia) Pty Ltd Phosphate Mining
 Company of Christmas Island Ltd Polycane Furniture Pty Ltd Poul Kirk Electronics Pty Ltd

Precision Paper Coatings Pty Ltd Professional Australian Systems Pty Ltd Prototypes Design Pty Ltd
 Quentron Electronics Pty Ltd

Quentron Optics Pty Ltd RMD Electronics Pty Ltd Radiation Research Pty Ltd Raffles Paints Australia Pty
 Ltd Ran Data Pty Ltd

Reln Pty Ltd Repco Ltd Ricegrowers Co-operative Mills Pty Ltd

Richter Machinery (Aust) Pty Ltd Robotnik Pty Ltd Â·

Royal International Pty Ltd SGE Manufacturing Pty Ltd SIE Inc SWR Pty Ltd Sabsoda Pty Ltd Scientech
 Pty Ltd Scientific Industrial Automation Pty Ltd Sebel Furniture Ltd

Seeton Pty Ltd Sedco Pty Ltd Sepac Industries (Australia) Pty Ltd

Maximum grant provided \$

254 150 77 800 84 600 286 800 380 200
 45 600 28 750 45 500 2 837 700
 292 000 69 450 72 200 256 600
 123 500 84 950 49 450 228 000 210800 620 700
 178 500 173 500 46 700 33 750
 190 400 169 000 51 000 74 450
 85 650 183 350 46 200 239 250
 157050 418 250 152 250 159 500
 79 200 41 350 105 450 171 500 152 550 215 950
 155 700 269 000 104 400 279 550 230 150
 164 150 108 050 541 000 24 250
 183 500

Intended date of completion

31.1.86 30.6.85 30.4.85 31.12.86 31.3.87 30.9.85 31.12.85 30.11 .84 30.6.87 31.12.86 30.6.86
 30.6.86 30.6.86 31.12.87 30.9.86 31.8.85 30.6.86 31.12.85 31.12.87 31.12.85 30 .6.86 31.3.86
 31.3.85 31.3.87
 31.1.86 30.6.86 30.6.86 30.6.86 30.6.87 31.1.86 31.8.87 30.6.88 31.12.86
 31.1.86 30 .6.86 31.1.86 30.9.86 30.6.87 31.12.86
 30.9.86 30.6.87 30.6.85 30 .6.87 31.10.85
 31.1.87 30.6.86 30.6.86 30.12.85 30.6.86 30.6.85 30 . 12 .85

53

APPENDIX D

Maximum grant provided \$

Intended date of completion

Solar Air Pty Ltd 74 400 31.12.85
 Sola Optical Australia Pty Ltd 341 350 31.5.86
 Southern Cross Laboratories Pty Ltd 35 000 31.10.85
 Southern Wool Processors Pty Ltd 339 950 30.9.86
 State Engineering Works of Western Australia 510 450 30.6.88
 Sugar Research Ltd 95 550 30.6.86
 102 850 31.3.86
 47 950 30.6.86
 Sutton Tools Pty Ltd 169 000 30.6.86
 TCS Containers Pty Ltd 26 000 31.12.85
 TNT Management Pty Ltd 178 800 30.6.86
 Table Talk Poultry Farms Ltd 166 250 31.12.87
 Tantara Pty Ltd 200 000 30.6.86
 Taylor and Trefry Pty Ltd 58 850 30.6.86
 Tecalemit (Australasia) Pty Ltd 73 500 31.3.86
 Texas Instruments Australia Ltd 150 600 31.12.85
 Toowoomba Foundry Pty Ltd 97 500 31.12.85
 Troll Pty Ltd 67 800 31.10.85
 F R Tulk & Co Pty Ltd 400 000 30.6.86
 A R Turner & Co (Aust) Pty Ltd 161 600 31.12.86
 Ultrapore Pty Ltd 358 000 30.6.88
 Vaccines Pty Ltd 243 450 30.6.87
 Varian Techtron Pty Ltd 156 575 31.5.85
 86 450 31.1.86
 Vessey Chemicals Pty Ltd 113 550 31.3.88
 140 150 31.3.88
 Victorian Chemical Company Pty Ltd 20 250 30.6.85
 Victorian Hide & Skin Producers Pty Ltd 376 500 31.3.88
 Vinidex Tubemakers Pty Ltd 87 250 2.8.86
 Vipac Pty Ltd 165 950 31.12.85
 Vision Systems Pty Ltd 268 750 31.12.85
 Vitapharm Pharmaceutical Pty Ltd 142 000 31.12.85
 WA Chip & Pulp Co Pty Ltd 54 175 31.12.85
 25 000 31.12.85
 Webster Computer Corporation Pty Ltd 209 250 31.1.87
 Westeq (No 1) Pty Ltd 51 650 30.6.85
 47 700 31.12.85
 16 100 30.6.85
 Williames Hi-Tech International Pty Ltd 151 500 31.12.87
 R L Windsor & Son Pty Ltd 72 100 30.11.85
 Woodlawn Mines 65 300 30.9.86
 Woolbatts Australia Pty Ltd 50 000 30.9.84
 Henry Young & Sons Pty Ltd 22 850 30.6.85
 Zylab Australia Pty Ltd 50 050 31.6.86
 Total 46 942 044
 54

APPENDIX E

PROJECT GRANT AGREEMENTS SIGNED IN 1984-85 BY CLASS OF INDUSTRIAL ACTIVITY (CLASSIFIED BY THE INTERNATIONAL PATENT CLASSIFICATION SYSTEM)

Total grant commitment \$

Agriculture A01 Agriculture; forestry; animal husbandry; hunting; 1 184 200

trapping; fishing

Food stuffs and tobacco A21 Baking; edible doughs 273 000

A23 Foods or foodstuffs; their treatment not included 254 150

in other classes

Health and amusement A47 Furniture; domestic articles or appliances; 272 200

coffee mills, spice mills; suction cleanser in general A61 Medical and veterinary science; hygiene 2 909 000

A63 Sports; games; amusements 45 550

Separating and mixing B01 Physical or chemical processes or apparatus in general 1362 000

B02 Crushing, pulverising or disintegrating; preparation 121050

treatment of grain for milling B03 Separation of solid materials using liquids or using 121650

pneumatic tables or jigs; magnetic or electrostatic separation B04 Centrifugal Apparatus or machines for carrying out 576 250

physical or chemical processes BOS Spraying or atomising in general; applying liquids 146 900

or other fluent materials to surfaces in general Shaping B21 Mechanical metal-working without essentially removing 530 300

material; punching metal B22 Casting, powder metallurgy 626 950

B23 Machine tools, metal-working not otherwise provided for 206 050

B25 Hand tool; portable power-driven tools; manipulators 171500

B26 Hand cutting tools; cutting machines or devices not 339 950

specially adapted for particular materials or purposes B27 Working or preserving wood or similar material; 106 875

nailing or stapling machines in general B29 Working of plastics; working of substances in a 493 600

plastic state, in general; working of substances not otherwise provided for B31 Making paper articles; working paper 42 000

Printing B41 Printing; lining machines; typewriters; stamps 23 700

Transporting B60 Vehicles in general 486 400

B61 Railways 645 200

B63 Ships or other waterborne vessels; related equipment 386 900

B65 Conveying; packing; storing; handling thin or 1 527 200

filamentary material B66 Hoisting; lifting; hauling 4 509

55

APPENDIX E

Chemistry C01 Inorganic chemistry C02 Treating water; waste water and sewerage C03 Glass, mineral and slag wool C04 Cements; ceramics, etc; sound and thermal

insulating materials C05 Manufacture of fertilizers C07 Organic chemistry COS Organic macromolecular compounds; their preparation on

chemical working-up C09 Dyes; paints; polishes; natural resins; adhesives; miscellaneous compositions; miscellaneous

application of material CIO Petroleum, gas and coke industries; fuels; lubricants CI 1 Animal and vegetable oils, fats, fatty substances

and waxes; fatty acids therefrom; detergents; candles C12 Fermentation industry; beer; spirits; wine; vinegar; yeast C 13 Sugar or starch industry C14 Skins; hides; pelts; leather Metallurgy

C21 Metallurgy of iron C22 Metallurgy; ferrous or non-ferrous alloys; treatment of alloys or non-ferrous metals C23 Working or treatment of metals, other than by

mechanical means; covering materials with metals; inhibiting corrosion or incrustation in general C25 Electrolytic or electrophoretic processes; apparatus therefor Textiles and flexible materials not otherwise provided for DO 1 Natural or artificial threads or fibres; spinning D06 Treatment of textiles, etc;

laundering; flexible

materials not otherwise provided for Building EO1 Construction of roads, railways and bridges E02

Hydraulic engineering, foundations; soil-shifting

E04 Building E06 Doors, windows, shutters or roller blinds in general; ladders Mining

E21 Mining Engines and pumps F02 Combustion engines; hot-gas or combustion product engine plants

F04 Positive-displacement machines for liquids; pumps for

liquids or elastic fluids

Total grant commitment \$

624 200 87 700 93 650 2 837 700

200 800 681 700 245 850

1 295 400

35 000 19 800

771 200

64 350 376 500

321 150 392 260

478 950

431 650

1 052 200 110 400

292 000 161 150 823 350 137 350

701 650

348 600

141 650

56

APPENDIX E

Total grant commitment \$

Engineering in general F16 Engineering elements and units; general measures for producing and maintaining effective functioning of machines or installations

582 100

Lighting and heating F23 Combustion apparatus; combustion processes F24 Heating; ranges; ventilating

F25 Refrigeration or cooling; manufacture or storage of ice; liquefaction or solidification of gases

95 550 556 550 308 450

F27 Furnaces; kilns; ovens; retorts 150 000

Instruments G01 Measuring; testing G05 Controlling; regulating G06 Computing; calculating; counting G07 Checking devices G08 Signalling G il Information storage G12 Instrument details

3 096 575 2 013 725 4 872 600 144 150

1 092 150 172 000 665 600

Electricity HO 1 Basic electric elements H02 Generation; conversion or distribution of electric

1 728 500 I 369 550

power

H03 Basic electronic circuitry H04 Electric communication techniques H05 Electrical techniques not otherwise provided for

1 090 200 3 269 950 150 600

Total 46 942 044

57

APPENDIX F

CURRENT MINISTERIAL DIRECTIONS

PUBLIC INTEREST PROJECTS (SECTION 39) PURSUANT to Section 19 of the Industrial Research and Development Incentives Act 1976, I, David Scott Thomson, Minister for Science and Technology administering the said Act, hereby direct that, in relation to negotiations for projects approved under Section 39 of the said Act, the

Board should:

(a) draw to the attention of the prospective contractor(s) that legitimate exercise of the Board's powers under Section 39 requires that the ownership of all industrial property rights resulting from public interest projects be vested, in the first instance, in the Commonwealth; (b) endeavour to conclude an agreement in which all industrial property resulting from the project

remains vested in the Commonwealth. The clauses contained in the attached schedule are, in general to be used in the contract agreement; (c) negotiate, where it becomes necessary to conclude an agreement, the disposal by the Commonwealth, on normal commercial terms, of some or all of the industrial property

resulting from the project.

2 Where the Board enters into an agreement:

(a) where the clauses set out in the attached schedule are not used; (b) where the clauses set out in the attached schedule are varied; (c) disposing of industrial property vested in the Commonwealth as a result of the project; or (d) placing any lien on the use of industrial property vested in the Commonwealth as a result of the

project; the extent of, and reasons for the non-use, variation, disposal or lien, as the case may be, are to be indicated in the Annual Report of the Board for the year in which the agreement was concluded.

3 This direction is to take effect from 1 July 1981.

Dated this twenty-fourth day of June 1981.

DAVID SCOTT THOMSON

Minister of State for Science and Technology

COMMENCEMENT GRANTS PURSUANT to Section 19 of the Industrial Research and Development Incentives Act 1976, 1, David Scott Thomson, Minister for Science and Technology administering the said Act, hereby direct that the Board should ensure that:

(a) applications for commencement grants are generally processed for approval in order of receipt; (b) the objectives of containing the cost of the scheme within annual Budget appropriations and minimising the extent of carryover commitments are met by: (i) requiring that industrial research and development work, where assisted by commencement

grants, is in general, performed or supervised by professionally qualified persons; (ii) facilitating the exercise of stringent financial control by the responsible Minister by providing advice enabling the monitoring of commencement grant applications by the said Minister at least on a quarterly basis and monthly during the period in which applications

are being received.

2 This direction is to take effect from 1 July 1981.

Dated this twenty-fourth day of June 1981.

DAVID SCOTT THOMSON

Minister of State for Science and Technology

58

APPENDIX F

CONDITIONS FOR PAYMENT OF ADVANCES IN RESPECT OF PROJECT GRANTS UNDER SUB-SECTION 35(1A) OF THE INDUSTRIAL RESEARCH AND DEVELOPMENT INCENTIVES ACT 1976 PURSUANT to Section 19 of the Industrial Research and Development Incentives Act 1976 (the Act), I, Barry Owen Jones, Minister for Science and Technology, hereby direct that:

(1) The Australian Industrial Research and Development Incentives Board (the Board) shall not authorise under sub-section 35 (1A) of the Act the payment to a company of an advance in respect of a project grant that may become payable to the company, unless:

(a) the company has provided adequate security; or (b) the Board is reasonably satisfied that:

(i) an advance payment is necessary to ensure the orderly progress of the project; and

(ii) the financial status of the company is such that the Commonwealth would be able to successfully recover any amount of an advance payment made in excess of an amount later deemed payable by the Board under the agreement in respect of the project.

(2) The amount of an advance payment authorised by the Board under sub-section 35 (1A) shall not exceed:

(a) where the company has provided adequate security the amount of security provided; or (b) where the company has not provided adequate security an amount equal to the moneys that may become payable to the company under the agreement in respect of estimated expenditure on the project for the 3 month period next following the date to which the

Board considers that grant entitlement has already been earned.

Dated this seventh day of June 1983.

BARRY OJONES

Minister of State for Science and Technology

PROJECT GRANT ASSESSMENT CRITERIA PURSUANT to Section 19 of the Industrial Research and Development Incentives Act 1976, I, Barry Owen Jones, Minister for Science and Technology, hereby direct that, in assessing applications for project grants under Division 2 of the said Act, the Australian Industrial Research and Development Incentives Board:

note that it is the Government's desire that emphasis be given to the timely support of projects undertaken by companies which show sound entrepreneurial management and regard themselves as servicing a global rather than a limited Australian market; and employ the following assessment criteria:

General Assessment Criteria In assessing all applications for Commonwealth funding support for projects of industrial research and development, the Incentives Board shall take into account economic, technical

and commercial considerations together with the Government's industry policy objectives and evaluate applications accordingly.

(a) In assessing economic considerations, the Board shall have regard to: (a) the pervasiveness of the technology in question including the likely benefits to accrue to other businesses and industries; (b) the magnitude of the potential impact in terms of knowledge gained and employment

generation or cost reduction; (c) the extent to which prospective benefits from the project will accrue to Australians and provide national returns beyond the company undertaking the project.

59

APPENDIX F

(b) In assessing technical considerations, the Board shall have regard to: (a) the novelty of the proposed development; (b) the level and quality of the industrial research and development, including the use of expertise obtained under contract; (c) the reliance on foreign technology and the availability and cost of accessing that

technology.

(c) In assessing commercial considerations, the Board shall have regard to: (a) the commitment of the applicant to the project; (b) the size of the market for a product or the scale of application for a process; (c) the time frame for commercialisation; (d) the capability of the applicant to see the project through to commercial reality; (e) the commercial risk associated with the project; (f) the need for Commonwealth funding support.

Additional Criteria for Computer Software Development Projects Prior to entering into project agreements involving the development of computer software, the Board shall also take into account, the following: (a) the proportion of industrial research and development inherent in the proposal, noting that

industrial research and development is likely to involve one or more of the following: (a) development of novel algorithms; (b) development of novel methodology; (c) development of improved performance; (d) the proposal be capable of being developed through to a product having a recognisable form or

be directed specifically to achieve a substantial process or productivity improvement; and (e) the proposal must demonstrate a feasible plan to exploit the software as a product.

Additional Criteria for support above the statutory limits

Finally, in examining requests for exercise of Ministerial discretion to provide grants in excess of 50 per cent of total expenditure or above \$750 000 in a year to any company, or group of related companies, the Board shall take into account the following additional criteria:

(a) The project or projects should hold prospects of substantial benefit to Australians beyond those which may accrue to the company and its shareholders. (b) There should be a demonstrated need for support beyond the statutory limits. (c) The project or projects should be directed to the development of new products or processes

involving new, or substantially new, technology. (d) Where the technology to be developed emanates from research initiated in Australian tertiary or other non-profit institutions, regard shall be had to the level of planned consultation, joint participation and interaction between the applicant and the institution in question.

These directions replace those made by David Scott Thomson on 24 June 1981 entitled 'Policy Guidelines' and on 25 November 1982 entitled 'Project Grants'. They also replace all directions made by Ian Malcolm MacPhee under Section 19 of the IR&D Incentives Act 1976.

Dated this 27 day of February 1984

BARRY OWEN JONES

Minister of State for Science and Technology

60

RECOVERY OF GRANT PAYMENTS

APPENDIX G

Company

Amount \$

Action in 1984-85

COMMENCEMENT GRANTS Carried forward at 1 July 1984 Hurley Industries Engineering Pty Ltd 4 094 outstanding

Initiated during the year Electronic Developments & Services Pty Ltd 1 434 outstanding

Feredy Pty Ltd 274 outstanding

Amount recovered 0

Balance outstanding at 30 June 1985 3 companies 5 802

PROJECT GRANTS Carried forward at 1 July 1984 Adsum Pty Ltd 5 946 4 911 written off

Allied Communications Pty Ltd 12 305
 1 035 recovered recovered
 Austenna Pty Ltd 6 796 outstanding
 Cainando Nominees Pty Ltd 12 860 written off
 Electro-Ceram Pty Ltd 42 743 recovered
 Electronic Research Australia Pty Ltd 205 902 outstanding
 J C Hutton Ltd 16 801 outstanding
 Presha Engineering (Aust) Pty Ltd 123 032 outstanding
 Shandon Engineering Pty Ltd 1 214 recovered against
 Strescon Pty Ltd 3 607
 another project outstanding
 Telectronics Pty Ltd 5 092 recovered against
 Tomlinson Steel Ltd 22 246
 another project outstanding
 Transfield (NSW) Pty Ltd 6 727 recovered
 Unibond Pty Ltd 4 013 outstanding
 Western Titanium Ltd 3 413 recovered
 Winter Industries Products Pty Ltd 10 000 outstanding
 482 697
 Initiated during the year AKT Consultants Pty Ltd 5 321 outstanding
 Acrow Pty Ltd 4 587 outstanding
 Amallâ€™s Engineering Pty Ltd 4 553 outstanding
 Bradmill Group Pty Ltd 10 000 recovered
 Clark Brick Ltd 3 496 outstanding
 Coal Gas Generating Pty Ltd 1 421 recovered
 Consolidated Systems Services Pty Ltd 24 497 outstanding
 Croda Chemical Group Pty Ltd 5 502 recovered
 Daroji Pty Ltd 9 691 outstanding
 Dulmison Pty Ltd 1 868 recovered
 H J W Engineering Pty Ltd 29 083 recovered
 Hydrocarbon Products Pty Ltd 3 499 recovered
 Johnson & Johnson Pty Ltd 5 891 recovered
 Kinger Boats Pty Ltd 179 outstanding
 Ligg Pty Ltd 21 396 outstanding

61

APPENDIX G

Company

Amount \$

Action in 1984-85

Metal Manufacturers Pty Ltd 32 881 outstanding
 Monsanto Australia Pty Ltd 32 978 recovered
 Mulga Mines Pty Ltd 31 860 recovered
 Philips Telecommunications 113 837 recovered
 Manufacturing Co Ltd Phosphate Co-operative Co of Australia Ltd 7 810 recovered
 Softwood Panelboard Pty Ltd 2 698 recovered
 Staybond Pty Ltd 2 638 outstanding
 Victa Ltd 4 225 outstanding
 Western Titanium Ltd 42 863
 402 774

recovered

Amount recovered 379 610

Balance outstanding at 30 June 1985 19 companies 505 861

62

APPENDIX I-

ADDRESSES

General correspondence should be addressed to:

Executive Member Australian Industrial Research and Development Incentives Board PO Box 12
BELCONNEN ACT 2616

Correspondence on public interest projects should be addressed to:

Secretary Department of Industry, Technology and Commerce BARTON ACT 2600 Telephone: (062) 64
1155

Offices of the Board are located at:

Entrance 5 Benjamin Offices BELCONNEN ACT 2616 Telephone: (062) 64 4378

19th Floor Sydney Plaza Building 59-61 Goulburn Street SYDNEY NSW 2000 Telephone: (02) 218 7947

7th Floor Jensen House 339 Swanston Street

MELBOURNE VIC 3000 Telephone: (03) 663 4833

or the State Directors at the Department's capital city offices:

PO Box K701 HAYMARKET NSW 2000 Telephone: (02) 218 7904 GPO Box 497

BRISBANE QLD 4001 Telephone: (07) 225 0122 PO Box 6134

Hay Street East PERTH WA 6000 Telephone: (09) 325 7344 GPO Box 85A

MELBOURNE VIC 3001 Telephone: (03) 665 6111 GPO Box 2339 ADELAIDE SA 5000 Telephone: (08)
213 2318

GPO Box 135IN HOBART TAS 7001 Telephone: (002) 20 4095

63