

FIFTY YEARS ONWARDS

The Plastics Institute of New Zealand Story : 1944-1994

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<u>Contents:</u>	<u>Page:</u>
PINZ Past Presidents	Inside Front Cover
Foreword by President John Tucker	2
A Short History of Plastics in New Zealand	3
The Decades: 1st Decade 1944-1953	8
2nd Decade 1954-1963	15
3rd Decade 1964-1973	23
4th Decade 1974-1983	32
5th Decade 1984-1993	47
Fifty Years of Machinery Developments	45-46
Former Executive Directors Photographs	56
List of Corporate Manufacturing Members	57
Associate Members	58
The Future as seen by President John Tucker and officers of PINZ	60
The Branches	61
Life Members Honours Board	63
PINZ Staff and Former Executive Directors	64
PINZ Awards and Exhibitions	65
PINZ Pioneers	68
Plastics Environmental & Advisory Council	75
Plastics Industry Training Organisation	76
Short History of Surviving Foundation Firms:	78
HC Urlwin/PDL Industries	78
ICI Chemicals/ICI New Zealand Ltd	81
Plastic Products Ltd/CHH Plastic Products Group	82
Optoplast Ltd	85
Current PINZ Staff	85
PINZ Conferences	86

EDITORIAL POLICY AND ACKNOWLEDGMENTS:

To avoid confusion the currency of the day has been used in the text. The basis of this history of PINZ is the painstaking research by Past President W.R Raine of surviving minutes and reports of the Institute from many hundreds of pages of records. A bound overview of over 300 pages has been compiled and a copy will remain in the Institutes archives.

To make the condensed PINZ history more readable and to convey the "mood of the times", time frames of the past 50 years have been related to actual happenings in New Zealand and internationally, researched from references in the Auckland and North Shore Public Libraries.

Elsewhere in the narrative contributions from longstanding PINZ members are gratefully acknowledged. Because of the frailty of human memory there is a degree of "E and OE". Comments do not necessarily represent the views of PINZ.

Foreword

It is with a considerable amount of pride that we record the achievements of the Plastics Institute of New Zealand over the past fifty years.

History within living memory is a fascinating subject - beyond such lifetime parameters it becomes history-book material. The danger is, that if not recorded, pioneer efforts are largely forgotten by future generations.

Consequently I was delighted when the 1993 Annual Conference of the Institute decided to publish the first fifty years of PINZ history and am pleased to have the honour of writing the introduction preface to this work which will no doubt be the pivotal point of reference for the "plasticist" who writes the history of the first century of PINZ in the year 2044. At least our descendants in that future period will know we have been here at this point in time.

May I congratulate life-member Wal Raine for his efforts in researching the history of PINZ. Many months of laborious voluntary work have gone into researching old minute books, and the basis of this condensed history of PINZ has resulted in the Institute having an archive of over 300 typed pages of resolutions of meetings and annual general meetings over the last fifty years, complete with Wal Raine's personal notations of explanations for future researchers.

Likewise I wish to sincerely thank members who have contributed and supplied photographs from their personal memorabilia for this publication.

From the small beginnings recounted in this book, plastics manufacturing in New Zealand can now record:

- annual industry turnover of \$1.1 billion
- 7,200 people employed
- direct exports of plastic products worth over \$132m per year, together with indirect exports of at least that much again (principally as packaging).

PINZ was in 1944 sponsored by the New Zealand Manufacturers Federation and at fifty years of age is still a National Industry Group affiliated to that Federation.

May the next fifty years of growth of the plastics manufacturing industry be as exciting as the fantastic progress to date.

John Tucker
President

A SHORT HISTORY OF PLASTICS IN NEW ZEALAND

Although to the average person the manufacture of plastic objects is a phenomenon of the 20th Century, for centuries mankind has been able to mould certain materials by softening with heat and pressing into required shapes.

Probably the earliest materials used were amber fossilised resin from trees, shaped by ancient Greeks and Romans into ornaments.

Some three thousand years ago the Chinese were using resin from the sap of Lacquer trees laminated in layers after numerous brushings of the liquid material, as a moulding base.

In medieval times animal products such as horn were heated and shaped by a moulding process, and tortoiseshell was a favoured material used for moulding combs and other ladies' hair accessories in the later industrial development era.

In the early 19th Century latex materials, sometimes referred to as gutta percha, were obtained by tapping Malaysian rubber trees. Later, Charles Goodyear developed the basis for vulcanised rubber tyres by mixing sulphur and latex.

In the mid 19th Century an inventive chemist, Alexander Parkes, using a mixture of cellulose from powdered wood and cotton fibre and added nitric and sulphuric acids and oil, made a "dough" which seems to be the first man-made plastic material. This earned him the title of the founder of modern plastics.

Later in the 19th Century the Hyatt brothers added a mixture of camphor to Parkes "dough" and invented and patented the trade name of Celluloid. Thus the age of thermoplastic materials was born.

There were some dramatic developments in the first half of the 20th Century as per the following development table of thermoplastic and thermosetting ** materials:

<u>Material Name</u>	<u>Approximate Date of Discovery</u>	<u>First Commercial Production</u>
Cellulose Nitrate (Celluloid)	1862	1870
** Casein	1885	1897
** Phenol Formaldehyde	1872	1907
Cellulose Acetate	1865	1916
** Urea Formaldehyde	1884	1926
PVC (Polyvinyl Chloride)	1872	1927
Acrylic	1924	1931
Polystyrene	1840	1939
Polyethylene	1933	1939
Cellulose Acetate Butyrate	1908	1939

So much for a short thesis on the worldwide development of modern plastics up to the formation of PINZ. To backtrack; New Zealand's first development towards a plastics industry is attributed to the inventiveness of a German, Adolph Spitteler, who discovered a dairy product named casein in the 1890's.

At the turn of the century New Zealand was becoming known as a major dairy producing country, manufacturing butter and cheese for world markets. There was an abundance of skim milk and curds which apart from pig feeding was largely wasted.

It is known that Joseph Nathan and Co. had an involvement in pioneering dairy by-products and is credited with the first manufacture of milk powder in their factory at Makino in 1901. Skim milk is used for the manufacture of casein.

It is believed that the first casein in New Zealand was manufactured in a factory at Rapanui near Wanganui in 1912, as a result of visits to England by representatives of Taranaki dairy factories a few years earlier investigating the problem of skim milk disposal. There is reference to a Mr Porritt making the first visit in 1896 and Messrs Pederson and Hobson in 1911.

There was at that time a considerable market in England for lactic casein powder to be used in the manufacture of bases for glues, artificial textile fibres, as a coating for quality paper, paints, and a base for food concentrates. Rennet casein being easily worked and nonflammable, was widely used in the UK plastics industry for furniture fittings, pens, knife handles, buttons and fancy goods.

With such a market the industry grew, and in the 1913-14 season 22 dairy factories were making casein, 15 in Taranaki and 7 in the Waikato. The following schedule graphically illustrates this export trade:

1912	-	32 tons
1913	-	214 tons
1914	-	298 tons
1915	-	96 tons (WW I)
1920	-	1328 tons
1925	-	2195 tons
1930	-	2865 tons
1935	-	3258 tons
1940	-	1217 tons (WW II)
1945	-	805 tons (WW II)

The last casein factory closed down in 1945. There is no record of any New Zealand company manufacturing casein goods at that time. Although an exporter of casein powder as early as 1912, New Zealand was little interested in plastics as a manufacturing industry until 1926 when Bunting and Co. Ltd, brushmakers of Christchurch began importing celluloid and casein plastic sheets for backing their hair and clothes brushes. A radio manufacturer (name unknown) was importing bakelite sheets to be cut and drilled for radio receivers. The National Brush Company of Auckland was importing (from Formosa) rough shaped celluloid toothbrush handles which were drilled and polished and filled with bristles.

The plastics industry in New Zealand, however, dates from early 1932, when the Christchurch engineering firm of Andersons Ltd installed an 80 ton hydraulic press with the intention of developing moulded bakelite production as rapidly as possible. Its early orders included one for 5,000 telephone earpieces for the Post and Telegraph Department.

In 1934 the Colonial Ammunition Company Ltd, Auckland, began production of moulded plastic screw-caps for medicine bottles, supplying them to a few manufacturers of proprietary medicines.

In 1936 H.C Urlwin Ltd, Christchurch, ordered machinery for the manufacture of plastic mouldings, and by September was producing electric iron connectors and flush switch parts. By May 1937 it was making coloured plastic tableware and picnic sets, and by the following October its plastics division was employing a staff of twenty.

Fears Brush Company Ltd, Auckland (a subsidiary of Fears Brush Company, Sydney, New South Wales) in that month took over from Jackson and Company, Auckland, the latter's toothbrush business, which utilised natural bristle and Japanese celluloid handles. Under the new management the company eventually produced its own plastic toothbrush handles.

Following installation of its press Andersons Ltd built up a steady business in bakelite specialties without attempting in any way to manufacture for general market purposes. After H.C Urlwin Ltd began, Andersons adopted a policy of co-ordination and not competition - concentrating on die production and using the press mainly as a testing medium.

Meanwhile, from the founding in Auckland by Mr J.H Faulconbridge in 1934 of a button manufacturing business with a capital of a few pounds, stemmed a plastic button and buckle industry. From a backyard factory in Eden Terrace he progressed to larger premises in Newmarket, incorporating the business as Buttons (NZ) Ltd in 1936, with a capital of £1,000, producing cast resin, casein, and compression moulded plastic buttons in addition to the wood and pearl types that had initially been made.

Although Reid NZ Rubber Mills Ltd, Auckland, made small quantities of plastic ashtrays in 1938, and also four-inch diameter wheel shaped handles for the pasteurisers made by Murray Deodorisers Ltd, it decided that plastics production would not be economic unless large outputs were practicable.

Urlwin's factory was destroyed by fire in August 1939 but production was resumed without delay in new premises.

A Dunedin syndicate in that month promoted Dolfite (NZ) Ltd, Dunedin, to make plastic-ware and hair spring products but, owing to the invalidity of patent rights it had secured overseas, did not proceed to allotment of funds to procure new materials.

War needs combined with restricted imports accelerated expansion to a surprising extent during the next five years.

In 1940 six new units commenced plastics manufacture.

1941 saw the establishment of Optoplast Ltd, Wellington, which concentrated on plastic bullet-tip manufacture under contracts from the Munitions Controller.

In June, Vale and Company Ltd, Christchurch, decided to import the machinery to undertake bakelite moulding, while in November, nylon fibre toothbrushes were produced by National Brush Company (NZ) Ltd, Auckland and Fears Brush Company Ltd, Auckland. Urlwin and Co. Ltd, Christchurch at this time was operating three shifts and producing approximately 6,400,000 plastic articles per annum.

A Departmental review in 1943 showed that plastic mouldings in New Zealand were originally all of the thermosetting type, but thermoplastic moulding was being increasingly adopted and there were then eight large-scale operators using nearly forty compression moulding machines and thermosetting materials, and two operators with three injection machines utilising thermoplastics.

Amalgamated Chemical Industries Ltd, Invercargill, formed in October 1935 and incorporated on 7 February 1936 with a nominal capital of £100,000, had as its objects 'the establishment of modern works for the distillation

of beech wood-waste and the sale of the resultant products - methyl alcohol (wood naphtha), acetone, acetic acid, and lime and soda acetates, 'Supplies to plastic manufacturers', stated the prospectus, 'will also be a major portion of the company's operations'. Production never commenced and an order of the court later appointed the Official Assignee, Christchurch, liquidator of the company.

In 1943 an Auckland syndicate proposed to undertake the manufacture of moulding powders, but wartime restrictions caused it to abandon the formation of its intended company, New Zealand Plastics Ltd.

In these embryo days of New Zealand's plastics manufacturing era, it is interesting to note the following statistics:

<u>Value of Imports of Plastic Manufactured Goods</u>		<u>Value of Imports of Plastic Raw Materials</u>	
1935	£860	1933	£4,479
1936	£821	1934	£6,828
1937	£1,398	1935	£8,038
1938	£1,104	1936	£9,915
1939	£577	1937	£15,191
1940	£278	1938	£7,678
1941	£282	1939	£14,370
1942	£47	1940	£27,713
1943	£-	1941	£29,815
1944	£23	1942	£24,873
1945	£3,227	1943	£24,357
		1944	£25,015
		1945	£21,273

The figures have been extended to include all the WW II years.

In 1944 Andersons Ltd, Christchurch, sold its plastic moulding business to Plastic and Diecasting Ltd (a Vale subsidiary), Christchurch.

Interest in the production of plastics was evinced at this time by Amalgamated Brick and Pipe Co. Ltd, Auckland and Belmont Plastics Ltd, Wellington, but no positive action towards manufacture was taken.

A subsidiary of National Brush Co. Ltd, Auckland - Plastic Moulders (NZ) Ltd, Auckland - was established to undertake the manufacture of toothbrush and hairbrush handles and combs, and Amalite Ltd, Auckland, commenced custom moulding of components for radio assemblers and cooking utensil manufacturers.

The industry was called on during the war years for a variety of items for equipping the armed forces in both the Pacific and Middle East areas. It furnished, among other items, vast quantities of buttons for service garments, and millions of toothbrushes.

June 1944 saw the formation, under the aegis of the New Zealand Manufacturers Federation, of a New Zealand Institute of Plastics, following a conference of Dominion manufacturers in Wellington. By this time there were eighteen known plastic manufacturing companies in New Zealand. They were as follows:

<u>Manufacturer</u>	<u>Established</u>	<u>Ownership</u>	<u>Manufacturing Process</u>
H.C Urlwin Ltd	1921 Christchurch	Public Company	Comp, Injection and Extrusion
National Brush Co.	1925 Auckland	Private Company	Brush Filling
Collier & Beale Ltd	1926 Wellington	Private Company	Comp, Injection
Radio Corp of NZ	1930 Wellington	Public Company	Comp and Extrusion
Reid Rubber Mills	1933 Auckland	Public Company	Extruding
Falcon Plastics Ltd	1935 Auckland	Private Company	Comp and Injection
British Leathercrafts	1936 Christchurch	Public Company	Conversion Plastic Sheet
Handles & Hardware	1937 Wellington	Private Company	Laminating
ACI Plastics	1939 Auckland	Public Company	Comp, Injection and Extrusion
Plastic Products	1940 Hamilton	Private Company	Comp and Injection
Horn Buttons and Accessories	1940 Wellington	Private Company	Button manufacture
Isolex Manufacturing	1940 Wellington	Partnership	Laminating
Optoplast Ltd	1941 Wellington	Private Company	Comp and Injection
C & C Plastex	1942 Wellington	Private Company	Plastic Sheet
Custom Moulding	1943 Auckland	Private Company	Compression
Plastic Moulders Ltd	1944 Auckland	Private Company	Injection
Plastic & Diecasting	1944 Christchurch	Private Company	Compression

During this pre PINZ era there is no record of manufacture of raw materials in New Zealand. However it is interesting to note the comments from Geoff Calvert on page 68 below ("Early Attempts to Produce Raw Materials").

1944 - 1953 : "THE FIRST DECADE"

By mid **1944** New Zealand Industry had been on a wartime footing for four long years, during which time priorities for new materials and industrial manufacture were almost exclusively for the war effort. However there was light at the end of the tunnel, the long awaited invasion of Nazi occupied Europe had begun, and the Japanese were being pushed back towards their homeland. The scent of ultimate victory was in the air, and business interests began to contemplate the relative freedom from restrictions in a post-war environment.

It was possibly this atmosphere that fostered informal discussions between several plastics manufacturers towards the formation of a national body to look after the interests of the growing plastics manufacturing industry throughout New Zealand.

On 7 June 1944 a meeting of interested parties was called in Wellington and attended by representatives of the plastics industry in New Zealand. Among those attending were:

Mr Harry Urlwin of H.C Urlwin Ltd, Christchurch
Mr Les Lewis of National Brush Company, Auckland
Mr Roy Faulconbridge of Buttons (NZ) Ltd, Auckland
Mr L Lambourne of Lambourne Co. (Petone) Ltd
Mr J Brodie of National Electric and Engineering Co. Ltd, Wellington
Mr F Feist of Modern Plastics (NZ) Ltd, Wellington
Mr D. Savage of Optoplast Ltd, Wellington
Mr F Davison of H.C Urlwin Ltd, Wellington
Mr R Rastrick of Plastic & Diecasting Ltd, Christchurch
Mr J Somerville of British Chemicals Ltd, Dunedin
Mr Norman Lawn of Scott and Halladay NZ Ltd, Wellington (By Invitation)

Mr Harry Urlwin was elected as chairman of the meeting. It was resolved:

- To establish a national organisation of plastic manufacturers in New Zealand.
- That the membership of the organisation be open to manufacturers of plastic parts from natural and synthetic resins.
- That the name of the organisation be the "New Zealand Institute of Plastics". *
- That the draft Constitution and Rules be accepted.
- The following officers were elected: President - Mr Harry Urlwin; Vice President - Mr Les Lewis; Secretary - Mr D MacDonald (also Secretary of the NZ Manufacturers Federation); Auditors - Paul Gillingham and Co.

It is interesting to note that Paul Gillingham and Co., now Gillingham Horne & Co, have remained auditors for the entire 50 years of our existence.

Matters discussed at this inaugural meeting included:

- Plastic Publications recommendations
- The cost of raw materials and custom's tariff

(It is interesting to note that "raw materials" in one form or the other continued to be a regular agenda item for subsequent meetings.)

- An indication of plans for Dominion Industries and Monsanto Chemicals of America to manufacture phenolic and urea powders in New Zealand.

* *It is interesting to note that the name initially proposed was the "Plastics Institute of New Zealand", however subsequent to the 7th June meeting those persons able to be contacted agreed to the name "New Zealand Institute of Plastics" as more euphonious. In 1962 the name was altered to "Plastics Institute of New Zealand" (PINZ).*

- The public relations aspect between Government and other industries regarding co-operation of the Institute in relation to plastics information, new products, versatility and standards of production.
- Plant extension information to members, on the acquisition and application procedures for importing new plant from overseas.

The first Annual General Meeting was held on 6 December 1944.

New members attending included:

Mr W. Halls of Amalite & Co. Ltd, Auckland
 Mr G. Calvert of Modern Plastics (NZ) Ltd, Wellington
 Mr J.D.M Foreman of Plastic Products Ltd, Hamilton
 Mr F. Meyer of Isolex Manufacturing Co. Ltd, Wellington
 Dr R. Gardner of British Chemicals Ltd, Dunedin

From the Chairman's report Mr Harry Urlwin's words of wisdom should be recorded for posterity.

"Although the problems facing the industry at present (and requiring the attention of the Institute) were few this might not be the case in the coming years. Members of the industry had however, in the meantime, established a national organisation by means of which was being created not only friendly relations between all plasticists but also a spirit of co-operation and solidarity throughout the industry. If the time came when problems of vital importance had to be faced and solved by manufacturers of plastics in New Zealand I feel sure that the challenge would be accepted and the facing and solving accomplished accordingly".

In the past 50 years these words have become the ideal of the Institute.

Worthy of mention at this historic first AGM was that:

- The officers of the Institute be increased to four members (including the President and Vice President), elected annually and representing Auckland, Wellington, Canterbury and Otago/Southland provinces.
- An Associate membership classification was added to the Institute's ordinary membership.
- A Custom Moulding sub-committee was formed, and made recommendations regarding moulding dies and ownership of same.
- The shortage of raw material powders from the United Kingdom and priorities thereto was discussed at length.
- It was decided to hold AGM's in the four centres in rotation.
- For the first time there was mention of the Institute running plastic design award competitions, and the President, Mr Harry Urlwin, offered to donate £50 for the provision of suitable awards.
- Affiliation with overseas plastic organisations was to be investigated.
- Subscriptions for 1945 membership fees were set at £5.00 per voting member.

So ended 1944, the last full year of the worldwide conflict - World War II. On the home front, lusty baby "PINZ" had been born, and was thriving under the protection of its parental body the New Zealand Manufacturers Association.

1945 can justifiably be described as the year that changed the course of the 20th Century, and all our lives. On May 13th (VE Day), Nazi Germany finally surrendered. On 6th August an atomic bomb was dropped on Hiroshima, and nine days later Japan unconditionally surrendered to the Allied Forces, thus ending six years of world wide conflict that claimed the lives of 55 million people. On the home front, the Labour Government nationalised the Bank of New Zealand.

The Institute held a meeting on the 31st May almost on the anniversary of its inception, and held its second Annual General Meeting in the council room of the Auckland Manufacturers Association, on 28th November. There were fifteen member delegates plus the Secretary of the Auckland Manufacturers Association, Mr Jim Don.

The President's Report, amongst other things, made specific reference to the transformation of the plastics industry from a wartime to peacetime basis, shortage of raw materials, relaxation of price controls and the necessity for New Zealand manufacturers to keep ahead of the latest technical knowledge and equipment to meet competition from overseas manufacturers, particularly in design of products after the constraint of wartime shortages.

Messrs Bryce and Bowden, representing the Department of Industries and Commerce addressed the meeting in regard to the raw materials supply position, highlighting the position of shortage of suppliers and inferior raw materials from the United Kingdom compared with the USA, and the Government's absolute necessity to preserve Dollar funds compared to the more available UK Sterling funding.

It is interesting to note that thermoset powders of first class quality were available from USA at a landed cost of 3 shillings and 3 pence per lb.

Concern was shown over the disposal of wartime plastic products through the War Assets Realisation Board affecting manufacturers pricing index.

Apropos of the times, it was resolved that the plastics industry give preference to returned servicemen when engaging new staff.

It was recommended to members that the use of the word "Bakelite" be discouraged in favour of the more appropriate word "Plastic" for manufactured products.

It was agreed that the Institute arrange Plastics Display Exhibitions in the main centres.

Mr Les Lewis of Auckland was elected President and Mr Geoff Calvert of Wellington, Vice President.

The Institute's funds, £115.00, were at that time held in the NZ Manufacturers Federation account, and the Secretary, Mr MacDonald, was authorised to open a bank account at the National Bank of New Zealand in Wellington in the Institute's name.

A survey in March 1945 showed 70 compression moulding, 3 injection, and 2 extrusion presses installed in New Zealand, with 23 compression and 3 injection units on order. Estimated usage of moulding powders was; ureas 250 tons; phenolics 200 tons; and thermoplastics (mainly cellulose acetate and cellulose acetate butyrate) 80 to 100 tons.

1946 saw the world gradually settling in towards a peacetime economy, but there were terrible shortages of consumer goods, particularly petrol, clothing and food. New Zealand's primary products were being exported at record levels to a starving and war ravaged Europe. Exports into New Zealand of vehicles and other machinery were very scarce, and most public utilities, especially telephones and electric power supply were severely rationed.

November 1946 was notable for the invention of Biro pens, a plastic marvel at that time, the re-election of the Labour Government for a fourth term, under Prime Minister Peter Fraser, the formation of 51 countries into the United Nations Organisation in London, and a horse named Russia won the Melbourne Cup by five lengths.

On the Institute's home front there seems to have been a meeting held on 2nd October in Wellington and the AGM in Dunedin on 4th December 1946, but unfortunately the minutes of both meetings are missing.

However it is known that on 4th December Mr Geoff Calvert of Wellington became President and Mr J.G Somerville of Dunedin Vice President, and Mr D.A Clarke had become the Group Secretary.

1947 indicated further recovery from the ravages of World War II. India left the British Commonwealth of Nations on 15th August amidst horrific racial tensions, and a US Army plane broke the sound barrier for the first time and survived the phenomenon. In New Zealand the Wellington Province experienced the worst floods in 50 years, and elsewhere petrol shortages and road transport restrictions were creating difficulties. Walter Nash, Minister of Finance, revalued the New Zealand pound upwards by 25% and killed the export market for most New Zealand manufacturers.

A meeting of the Institute on 5th May reported a severe rationing of raw materials caused by a shortage of titanium and light fillers, and the destruction of Monsanto's Texas plant. As a result of this it is interesting to note that a joint Australasian venture produced phenol moulding powder using pulverised shale to replace unavailable woodflour from Sweden.

The minutes report a New Zealand Plastic Workers dispute hearing and that a separate award for plastic workers was necessary.

The 1947 AGM was held in Christchurch and Mr J.G Somerville was elected President and Mr J.K Scobie of Wellington, Vice President.

1948 - There were no meetings of the Institute during this year. However the world continued to recover from the 1939-45 war years. The first post-war Olympics were held in London, the first Holden motor cars were made in Australia and transistors were invented to replace radio valves. Rimfire won the Melbourne Cup at 80 to 1 odds. Rehabilitation was the operative word in New Zealand and it seems that immigration to the Antipodes was the most popular desire of Britons and the Dutch. Meanwhile, Aunt Daisy ruled the radio waves with her 9.00am "Good Morning Everybody".

1949 was a year of great changes in New Zealand. In February the first Morris Minor cars arrived on the scene, proving that England was still a force to be reckoned with in the automobile production stakes. On April Fool's Day, the inimitable Phil Shone put fear into Aucklanders by broadcasting news on 1ZB's breakfast session of an enormous wasp invasion, a hoax that caused him to be caned by the powerful radio authorities. A New Zealand horse Foxgami won the Melbourne Cup and in the same month the first National Government for 14 years won the elections under the leadership of Sidney Holland. Critics of the day claimed that the "Tory" government, having paid penance for the dark days of the "Great Depression" of 1927-1933, climbed back to the Treasury benches on Labour's continuing policy of nationalisation of industry and industrial unrest.

More important for the plastics industry in New Zealand was a resumption of Institute meetings on 28th April 1949 after a lapse of 18 months. The Vice President Mr J. Scobie was in the chair and activated the ten members present to take firm steps towards the re-vitalisation of the Institute. The measures decided upon were to:

- Have regular meetings, and two general meetings per year.
- All existing members be involved in a membership drive amongst new firms involved in plastics manufacture.
- Better inter-firm contacts and greater unanimity of action.

- Greater involvement with overseas plastic firms and plastic institutes, and an exchange of knowledge.
- More attention to public relations with the general public and other industrial businesses.
- Closer co-operation with the NZ Manufacturers Federation.

It is clear that these actions inspired members present, and implementation was a turning point in their development of the New Zealand Institute of Plastics to date.

The financial state of the Institute at this time was a credit balance of £16-15-2 with membership fees due of twice that amount. Membership was still £5.00 per firm and this was not changed, but the meeting did vote for a £25.00 fee to be paid to the NZ Manufacturers Federation secretarial services for the year to 30th September 1949.

Other matters discussed at this "milestone" meeting were the deterioration of the raw material supply situation, the hard currency situation making it almost impossible to obtain supplies from USA, an unfair primage duty on raw materials of 3% when imports of finished products were landed free of customs duty, and the unfairness of price control in an extremely competitive plastics industry.

Mr Jim Scobie was elected President, and Mr F.G Davison Vice President for the balance of the year.

The annual meeting of the Institute was held in Hamilton on 20th October 1949 coinciding with a New Zealand Industries Fair in that city.

An excess of income over expenditure in the balance sheet to 30th September 1949 was £37.00.

Mr F.G Davison was elected President and Mr J.D.M (Mort) Foreman Vice President.

Although only seven members were present at the AGM and there were three resignations, the meeting firmly resolved to implement their previous plan of action to strengthen membership in the 1950's.

1950 - The 20th Century half century began boldly with a proliferation of atomic testing and stock piling, the signing of the NATO defence pact by 8 European nations, and the beginning of the Korean/United Nations war, and later in the year New Zealand shipped its K-Force of 6000 volunteers to the conflict.

On the credit side as far as New Zealand is concerned, the 4th Empire Games were held in Auckland, the All Blacks thrashed the Lions 3-0 in a test series, the new National Government approved the establishment of TAB betting shops, and re-introduced the death penalty for murder. New Zealand petrol rationing ended on 1st June 1950.

In the UK, Ford introduced their new range of Consul and Zephyr cars, and ICI established a new fabric, Terelene, in London.

Back in New Zealand the first meeting of 1950 was held in Christchurch on 4th April and was attended by 10 members and by invitation Mr Laurence Harrison of the NSW Plastics Institute.

A button-making sub section of the Institute was formed and it was reported that individual member firms were to begin plastic piping and tubing extrusion. It is noted that the Auditors received the princely sum of two guineas per annum.

The Annual Meeting was held at Chateau Tongariro on 30th November with only seven members in attendance.

Disappointment was expressed by the President, Mr Davison, and Past President, Les Lewis, at the small number of delegates and that interest had possibly waned over the last few years, and it was the obligation of current members to stimulate interest.

The bank balance had grown to £132-6-10. The secretarial fee was increased to £40.00 per annum.

The inclusion of non-voting associate members was discussed at length and approved.

Mr J.D.M (Mort) Foreman was elected President and Mr E.J Mandel of Wellington, Vice President.

The Secretary, Mr D. MacDonald, had resigned to take a post with the Board of Trade and a vote of thanks was passed for his 5 years service. Mr Alan Dellow was appointed General Secretary.

1951 began with the adding of hydrogen bombs to atomic arsenals. Winston Churchill entered 10 Downing Street as Prime Minister following a Tory victory at the polls. In New Zealand the good news was the birth of Richard Hadlee, and TEAL started a service between Christchurch and Melbourne. The bad news was a five month crippling watersiders strike that caused a state of emergency, troops as stevedores, the final deregistration of the nations waterside workers unions and a snap election at which National was returned to power.

Back at the six year old Institute the first meeting of the year was held in Wellington on 11th April 1951, with an attendance of 17 in spite of South Island representatives being unable to attend because of transport strikes.

The button sub-committee reported satisfactory results to their meetings with customs regarding button import dumping.

A sub-committee of Mr H.G Calvert and Mr H. Herzog was set up to revise the Institute's Moulding Design rules.

The AGM was held in Wellington on 1st November 1951 attended by 12 members. Mr E.J Mandel was elected President and Mr Roy Faulconbridge Vice President.

It is noted that an Australian Plastics Newsletter was sent to all members.

1952 saw the death of King George VI and Queen Elizabeth's ascension to the throne. The population of New Zealand passed the 2 million mark, and the first ANZUS meeting was held in Honolulu. Yet another New Zealand horse, Dalray, won the Melbourne Cup.

The Institute's 1952 bi-annual meeting was held in April at Wellington, attended by 10 members including Cliff Dowling of ICI in the capacity of an associate member. The Institute's credit balance was now a healthy £340-5-8. The auditors fee was increased to £2-12-6. The financial year ending was amended to 30th June from 30th September in tandem with the financial year of the Manufacturers Federation.

Import controls were hardened to sterling countries only. Compulsory branding legislation was passed through Parliament and manufacturers products had now to be trade marked and embossed with country of origin.

After years of discussion the Institutes first design moulding competition had been held and the results were announced. An electrical iron handle won the Industrial Award, a hand mirror the Fancy Goods, an egg tray the Household, and Lawn bowls the Sports Section.

Roy Faulconbridge was elected President and Geoff Calvert Vice President.

1953 on the international scene, Stalin died in March, Queen Elizabeth's Coronation was on June 2nd, and on June 27th the Korean War ended after 3 bloody years of fighting and 2 million deaths. The first De Havilland Comet Jet passenger plane commenced service, and Ford Anglias and Prefects arrived on the market.

Back home New Zealanders were delighted with Edmund Hillary's conquest of Mt Everest on June 2nd, and the Queen's visit to New Zealand in December, but saddened by the Tangiwhai train crash on Christmas Eve, killing 166 persons.

The Institute's bi-annual meeting was held in Wellington on 16th April, attended by 14 members.

The Plastics Institute of Australia was made an Honorary Member of The New Zealand Institute of Plastics in thanks for making their monthly newsletter available to members.

A publicity sub-committee was set up to employ a journalist to write up the plastics industry for publication in the "NZ Manufacturers" journal.

A raw material pool establishment was discussed, and a sub-committee was formed for future moulding design discussions.

Mr R.V Jackson of the Department of Industries and Commerce addressed the meeting on the serious effect of overseas dumping on the New Zealand plastics industry.

The AGM was held on 8th October 1953. There was nothing contentious on the agenda.

An address on recent advances in polythene (the ICI name for polyethylene) was given by Mr Owen of that company.

A publicity fund of £300.00 was created from accumulated funds, and it was agreed that articles from the second design competition be exhibited in Wellington, and newspaper plastics supplement be investigated.

Mr Roy Faulconbridge was re-elected for a second term as President and Mr Eric Bower of NZ Glass, Vice President.

Synopsis of First Decade of The Institute

So ends the first ten years of the New Zealand Institute of Plastics. The lusty baby "PINZ" born under parentage of the NZ Manufacturers Association on 7th June 1944 had developed more slowly than was envisaged by founder enthusiasts, Harry Urlwin, Les Lewis and Roy Faulconbridge.

Maybe this can be attributed to the hardships and shortages of the immediate past World War II period. It is doubtful if any particular Government can be blamed as there was a transition from Labour to National rule (5 years each). More probably it was the economic situation of that time. New Zealand was virtually supplying the total agricultural food needs of the United Kingdom in its recovery from near bankruptcy and the rigours of six years of war. New Zealand primary produce was instrumental in assisting that recovery and it is notable that the last ration books in England were not made redundant until as late as 1953.

The USA, on the other hand, was economically fabulously rich from the industrial spoils of war. Therefore New Zealand, through payment for primary products, had plenty of sterling currency but very little dollar funds. Unfortunately the raw material supply was better, both in supply and quality, from the US dollar area than the UK.

The Institute seemed to have faltered in 1948/49, attendances thereafter were much lower than desired, and some of the foundation year's membership resigned.

By the end of this first decade of the Institute's existence, in addition to the 15 member companies already mentioned in 1944, the following new members had been added:

Universal Manufacturing Co-op	
Optoplast Ltd, Wellington	(Mr Harry Herzog)
Cystalite (NZ) Ltd	(Mr Roy Park)
General Plastics (NZ) Ltd	(Mr Jack Quinn)
R.H Dellow & Co. Ltd	(Mr Roy Dellow)
Robert Bryce Ltd, Wellington	
Avon Metal Industries, Christchurch	
Radio (1936) Ltd	(Mr J.A Holmes)
H.H Buckley Ltd, Auckland	(Mr H. Buckley)
NZ Glass Manufacturing Pty. Ltd, Auckland	(Mr Eric Bower)
* W.J Retter Ltd	

- * Reliable Products Ltd
- * Electric Products Ltd
- * Reid NZ Rubber Mills Ltd

By the end of the first decade the four companies marked with an asterisk plus NEECO Ltd had resigned. However judging by financial reports there could have been more members by the end of 1953. (The research of that period of PINZ is somewhat hampered by missing minutes).

Fortunately, as the plastics manufacturing industry grew, the intentions of the fledgling "PINZ" became more important as a national institution, as witnessed by the following decades of this history of the Institute.

1954 - 1963 : "THE SECOND DECADE"

In **1954** the Rock scene hit the world with Bill Haley's "Rock Around the Clock", and Roger Bannister was the first person to break the 4 minute mile barrier. The US Navy launched the world's first atomic submarine, Nautilus, and IBM marketed their first accounting machines.

In New Zealand the Royal Couple spent January touring the country and in November the National Party was re-elected with a much reduced majority.

The Institute, incensed by the Board of Trade decision to allow plastic toy kits into the country, appointed a sub-committee of Messrs Foreman, Hetherington and Paul to fight the Government's stand on imports that threatened New Zealand industry.

The AGM was held in Wellington attended by 15 corporate members, 5 supply house delegates and 2 overseas visitors from Australia, Mr Stan Rust and Allan Wallis.

Eric Bower was elected President and Cliff Dowling of ICI, Vice President.

Applications for membership by two growing manufacturers, Clearlite Plastics and Plix Plastics, were received with pleasure.

1955 seemed to be a halcyon time for New Zealand. World War II had been over for ten years, there was stable government and virtually full employment, most wartime restrictions had ceased and our primary produce was selling well. New cars were starting to come on to the market and the post-war baby boom children were filling the schools.

There was an abundance of US artists visiting New Zealand, including Bob Hope, Frank Sinatra, Winifred Atwell, Frankie Lane and Johnny Ray, and the record pressing group of the plastic industry were doing very well. It was also a fine year for New Zealand Cricket with Bert Sutcliffe making 230 runs in a test match against India.

On a less happy note "Teddy Boys", an English importation, caught on and their thuggery and misbehaviour showed up in the larger cities.

At the Institute's bi-annual conference in Christchurch a very rare statement was in the minutes, ie; "The raw material supplies are satisfactory". Maybe the Institute was winning the battle after 12 years of struggle, or was it a temporary respite?

Beetle Elliot NZ Ltd, offered to donate a trophy for a golf tournament, should it be included at future AGM's.

For the first time an awful phrase, "Sales Tax", featured in the minutes, and it was resolved, "That the Institute supports the removal of sales tax on plastic sheet material".

It is pleasing to note that at the subsequent AGM, Mr John Hobin expressed appreciation that sales tax had been removed from sheet plastic, due largely to the support given by the Institute.

The formation of a "Good Housekeeping Institute" in New Zealand was mooted and was to be taken up with the Manufacturers Federation.

The supply of raw materials again reared its head, but this time from a different angle. Low purchase prices were being offered from East Asian countries, and the Institute favoured members staying with supplies from the traditional UK and USA suppliers.

A joint venture in a publicity film with the Plastics Institute of Australia was mooted.

Eric Bower was re-elected President and Cliff Dowling was re-elected Vice President. The minutes noted that Mr Harry Martin replaced Mr Bill Sommerville as Executive Officer.

1956 dawned with New Zealand still enjoying halcyon days of full employment and imports of new American cars boasting high wing rear mudguards.

Highlight of the year was an All Blacks/Springbok tour win of 3-1 tests in the "Boks" area. "Mooloo" bred Don Clark was New Zealand's hero kicking a record number of goals. Low note of the year was the discovery of the havoc asbestos worked with worker's lungs and the death of Opononi's prize attraction the dolphin "Opo".

In the Northern Hemisphere, however, traumatic events were taking place. Nasser, Egypt's strong man who deposed King Farouk in a coup four years earlier, nationalised the Suez Canal as a reprimand to the US, UK and France's refusal to finance the Aswan Dam on the River Nile. Israel, UK and France attacked Egypt, and Nasser blocked the canal by sinking 12 ships. If Russia had not been involved, with its military might, in subduing a bloody riot in Hungary, this action could have well led to a third world war. President Eisenhower and Senator McCarthy were involved in a witch hunt for communists in the US at that time and did not support their former allies. Consequently the United Nations called for a truce and everybody including Nasser and Britain's PM, Anthony Eden lost a lot of support in their own countries.

Back in Aotearoa the Institute was steadily increasing its influence in the plastics world, and two meetings, in April at Auckland and in November at Wellington, attracted good attendances and it was clear that the Institute was becoming an excellent advocate for the plastics industry.

Matters discussed included the importing of buttons which was still causing considerable concern due to inconsistent decisions by the Department of Industries and Commerce. Protection for the emerging manufacture of polyethylene water pipe in New Zealand was requested.

A proposal for a publicity levy on members for extra funding for PR purposes was turned down, and it was decided that accumulated funds be used to provide training sessions in plastic products for retailers' staff in the main centres. This was to be carried out before Christmas shopping began. It was reported that Modern Plastics were making a complete fibreglass Sander's Cup boat for presentation by the NZ Manufacturers Federation to the Duke of Edinburgh.

A booklet produced by ICI was sent to each of the fifty manufacturing members of the NZ Institute of Plastics.

A good deal of time at both meetings was taken up with Board of Trade tariff matters, both in regard to imports and to finished plastic products and raw materials. This was becoming a regular major item at Institute meetings and each year there were numerous consultations between members and Government officials. A danger apparent was a conflict of interest between local manufacturers and importers of rigid sheet products in the industry.

The Statistics Department asked the Institute to provide information for their annual returns, a fact which demonstrated the growth in stature and recognition of the Institute.

Cliff Dowling was elected President and Ken Fletcher, Vice President. The secretarial fee was increased to £75.00 per annum.

Mr Geoff Calvert was appointed as representative on the Plumbing Supplies Committee of the NZ Standards Institute.

1957 began with an attempt to clear the Suez Canal of sunken ships during an unsteady truce in the Middle East.

In Rome six nations, France, Italy, West Germany, Holland, Belgium and Luxembourg signed a trade treaty to form a European Common Market.

Six months after Britain's Astronomer Royal announced that "the idea of space travel is "Bilge", Russia put into orbit Sputnik I, and two months later a second Sputnik with a dog as test passenger.

Marilyn Monroe and Elvis Presley were the biggest news in the USA.

For New Zealand, Scott Base was opened, the All Blacks beat the Wallabies 3-0 on Aussie home ground, and a record number of immigrants from the UK arrived in NZ.

After a spell of 8 years, a Labour Government was returned to power under veteran PM Walter Nash (75) with a two seat margin.

Back to the Institute, continued growth of the now teenage foundling was reflected in the average attendance at meetings of 33 persons, a third of whom were associate members from supply houses.

Board of Trade matters continued to be of great interest and the conflict of interest between manufacturers, fabricators and importers of rigid sheet was resolved amicably by all parties.

Input to the Board of Industries and Commerce was continuing and import licensing schedules were reflecting the information being supplied.

The Standards Institute was working on specifications for polyethylene waterpipe and testing of plastic products in general.

The Institute's Plastics Court at the Auckland Easter Show was a success and the minutes recorded thanks to Mr Ken Fletcher of ACI Plastics accordingly.

A "famous first" for the Institute was a resolution to compile a monthly plastics newsletter to be sent to all members.

The resignation of foundation member Isolex Manufacturing Co. Ltd was received with regret.

At the AGM it was resolved to form a PVC garden hose liaison group.

There was a suggestion for the plastics industry to become more interested in technical training, and Mr Ken Fletcher said that the Institute should become involved in Technical College courses on plastics.

Ken Fletcher was elected President and John Hobin elected Vice President. In an attempt to increase nationwide interest in the New Zealand Institute of Plastics an Executive Board was formed, with the President and Vice President representing Auckland, Jack Quinn representing Wellington and Tom Brown representing Christchurch and Dunedin.

1958 is mostly remembered for its infamous "Black Budget". When Labour came back into power it inherited a major balance of payments crisis. There was such a deficit that there was only enough money left to pay for six weeks of imports. Rigorous import controls were introduced, but falling export prices for primary products worsened the situation. On 26th June, Minister of Finance Arnold Nordmeyer introduced the "Black Budget". Income tax was raised very substantially, duty on beer, spirits, tobacco and cars were doubled and the price of petrol increased by 1/- per gallon but carriers, taxis and buses were not allowed to raise their rates. Result; terms of trade began to improve almost at once!!

Elsewhere in the world, Julie Andrews and Rex Harrison were a smash hit in "My Fair Lady" in London. The US Navy atomic submarine Nautilus sailed under the North Pole ice, and the first Hovercraft was invented.

For the Institute 1958 was a good year of progress. Great emphasis was placed on the general tariff review, import licensing, the re-introduction of import controls and licensing policy for plastic goods and provision for raw materials for the current licensing year.

An accord was entered in to between the supply houses, who had given good service to the industry from in-house stocks, and the manufacturers who wanted the supply licenses granted to them directly. This seemed to satisfy both parties and the Government agreed to the Institute's recommendations.

Another matter of supply was rectified concerning the supply of raw materials from low cost countries. The previous entreaty to purchase from either UK or USA was dropped and members were free to purchase their raw materials to the best advantage on world markets. This change of policy fitted into the current overseas exchange circumstances of the Government, and the preferential sourcing of raw materials was not discussed at subsequent meetings.

The imbalance of overseas funds causing severe import restrictions of finished products helped the manufacturers establish firm markets of their own in New Zealand.

Such attitudes of the Institute helped the relationship with Government officials who showed a willingness to get to know the plastic product manufacturers, and assess the needs of the industry. It also helped to shape the structure of the Institute for future expansion.

Industrial Award matters indicated the desirability of the plastics industry having its own award, instead of being part of the Metal Trades Award.

It was resolved that Executive Members have their travel and accommodation expenses reimbursed, and this was accepted as general policy for elected executives.

This year there was a far reaching decision made at the AGM for branches to be formed in the four main centres under the Institute's sponsorship, and that these branches supersede any trade groups that may have functioned in these centres.

The branches were authorised to include technical personnel of member companies.

It was agreed that membership of supply houses be accorded the status of full membership of the Institute.

John Hobin was elected President and Jack Quinn Vice President. It was resolved that the Executive comprise the President, Vice President, Immediate Past President and Tom Brown the South Island representative.

1959 signified some far reaching changes in New Zealand lifestyle. Television broadcasting began on an experimental basis in Auckland, and on May 31st of that year the long awaited Auckland Harbour Bridge crossing became a reality. Billy Graham, evangelist, held his first meeting in Auckland attracting a crowd of 60,000 people. Nationally, telephone box calls rose from one penny four fold to an astounding four pence! and compulsory military training was abolished. In Dunedin with the last minute kicking of Don Clark, the All Blacks beat the Lions 18-17. In Te Puke, a group of orchardists changed the name of Chinese Gooseberries to Kiwi Fruit and thus established a worldwide market for that delicious green fruit. The "Matchbox" had arrived in the form of the economical BMC Austin and Morris Mini.

Overseas the Russians were winning the space battle, with their MKII unmanned spacecraft Lunik series flying past the moon into orbit around the sun, a second Lunik crashed on the moon and another orbited the lunar planet taking the first photographs of the dark side of the moon. Meanwhile the US had a disappointing two launches into lower space (500 miles) out of seven attempts. Hawaii became the 50th state of the USA, and Buddy Holly, father of rock music died in a plane crash at the age of 22.

As far as the New Zealand Institute of Plastics was concerned the Labour Government's policy aim to make the country less dependent on imports (a return to the New Zealand insulation policy of 1935) was a bonus for local plastic products manufacturing. Dr Sutch, head of the Department of Industries and Commerce and a leading economist of the day referred to it as "manufacturing in depth". This import policy was reflected in the growth of membership of the Institute which had reached 100 by the end of 1959, and upon attendances of members to the bi-annual meetings.

Branches of the Institute had now been formed in Auckland with Phil Hall as President, Wellington with Jack Fisher as President and a South Island Branch with Bob Stewart as President. It was resolved that the rules and constitution of branches should reflect those of the Institute and be vetted by the Executive Committee of the Institute before being adopted by the branches.

The Wellington Branch moved that the name of the Institute be changed to Plastics Institute of New Zealand (PINZ). This resolution was put to the meeting and lost!

At the 1959 AGM it was resolved "that a plastics industry union of employers be formed forthwith and it be a recommendation to members that they become members of that association".

Mr Rod Keir of the Auckland Technical Institute addressed the meeting on technical training and plastics technicians certification.

For the first time branch committee reports featured in the minutes of the National Institute. Other matters discussed were the National Consumer Council, industry standards, reviving of the design competition, the issue of a Plastics Trade Guide and the hardy annuals of import licensing and tariff classifications.

Jack Quinn was elected President and Past President Mort Foreman, Vice President.

1960 international news featured the beginning of the "Cold War", East v West, with an exodus of East Germans seeking asylum in West Germany and the border eventually being closed on August 31st.

Gary Powers, US pilot, was shot down over Russia in a "U2 Spy Plane" and his subsequent trial as a spy caused a sensation.

In the UK original suffragette Estelle Sylvia Pankhurst died at the age of 78.

In the USA Cassius Clay held the World Heavyweight boxing title and John Kennedy defeated Richard Nixon for the Presidency.

Back home there was furore about fluoridisation of water supplies, the Springboks beat the All Blacks 13-0 in Johannesburg and a tidal wave from an earthquake in Chile hit the East Coast.

TV arrived in New Zealand with AK TV2 operating from Auckland, featuring the Howard Morrison quartet featuring on the opening session on June 1st. TV license fee was £4.00 pa.

At the November general elections National came back into power under the leadership of Keith Holyoake. Three years of Labour Government had left New Zealand a legacy of great industrial expansion including a steel mill, an aluminium smelter and a gin distillery. Equal pay for women in the Public Service and 3% first housing loans were popular but the effect of the 1958 draconian budget on the worker's pocket caused Labour's downfall.

1960 heralded great expansion of the New Zealand Institute of Plastics. The first meeting held in Christchurch started with the formation of a New Zealand Plastics Industry Industrial Union of Employers, the first office bearers to be the same as the Institute. It was decided that although the meetings of the Industrial Union of Employers be concurrent with the bi-annual meetings of the Institute, separate minutes would be kept and this policy continued until the Union was dissolved on 16th September 1992.*

The minutes of the first meeting of the Institute in 1960 included reference to Petone Central Technical College including teaching of plastics in their Certificate of Engineering Course, and that there was to be a recommendation to Government that the licensing year be changed from calendar to a fiscal year. The previous reference to a plastics trade guide was abandoned.

The AGM that year had an attendance of 45 delegates. A milestone resolution was passed giving a vote to all membership. Alan Northover was delegated to represent the Institute in Japanese/New Zealand Trade Agreement negotiations. For the first time Plastic Wrapping Regulations were mentioned.

The Industrial Union of Employers had been registered and award matters were satisfactory.

Mort Foreman was elected President and Phil Hall Vice President.

1961 was notable for Russian activities. The Soviet astronaut Yuri Gagarin was the first man in space on April 12th with one orbit of earth lasting 108 minutes, while in Berlin the Russians began building the Berlin Wall on 31st August.

The United States put their first man into space on May 5th in a Mercury rocket on a 15 minute sub-orbit, 115 miles above earth. US troops were humiliated in the notorious Bay of Pigs invasion attempt of Cuba.

In New Zealand the "permissive society" probably arrived with the sale of oral contraceptive, "The Pill", the first bikinis appeared on the beaches, and "The Twist" arrived in dance halls. In this same year on 12th October the death penalty was abolished. Meanwhile on AK TV2 Alma Johnson and Tim Evans-Freake were a hit act as the country's first news readers.

The 1961 bi-annual meeting of the Institute was held at Wairakei Hotel on 1st May, with 30 delegates and partners in attendance.

Under the heading Plastics Industrial Union of Employers, a separate award for New Zealand plastic workers was discussed, and technical training courses and apprenticeships. Equal pay legislation became a new agenda item and the Institute affirmed its belief in compulsory unionism. A labour survey disclosed the need for skilled immigrants in the plastics industry and the Union had been registered.

ICI offered to donate seven trophies and personal awards to competition winners for the various planned classes of design.

* *As the minutes of the Union were reported to the Institute, for the purpose of this chronological record, activity of the Union will be included in the main script instead of separately.*

The social atmosphere at Wairakei Hotel was a forerunner of what was to become an essential part of the Institute's annual programme.

At the 1961 AGM in Wellington it was decided to increase the size of the National Executive and include one supply house representative.

Discussions included an overseas funds crisis that was seriously affecting raw material import licensing. The Executive Officer reported that notice of motion had been given to amend the Rules to provide for the name of the Institute to be the Plastics Institute of New Zealand.

The Plastic Pipe sub-committee advised that a standard for rigid high density polyethylene pipe and water hose had been agreed upon.

Phil Hall was elected President and Bob Stewart Vice President with Allan Bloomfield the first supply house representative.

1962 began well for New Zealand. On 27 January Peter Snell broke the world mile record at Wanganui in 3 minutes 54.4 seconds. The All Blacks beat the Wallabies 4-0 in a New Zealand test series. Prison escaper George Wilder became an elusive "Robin Hood" character to the chagrin of our constabulary.

Overseas the UK wanted to join the EEC but at the same time protect New Zealand and Australian export markets.

On the 17th August the "Blonde Bombshell", Marilyn Monroe, died in Los Angeles and later in the year the USA came to the brink of an atomic war with the threatened Cuban deployment of Russian made atomic bombs.

On 7th and 8th May 1962 the Institutes bi-annual meeting was held at Hanmer Springs in the South Island, the attendance register indicating the popularity of out-of-town weekend conferences. By this time the Institute's name had been altered to "Plastics Institute of New Zealand" and "PINZ" became the official motif name on the Institute logo.

The PINZ Employers Union announced a new award, and it is interesting to note the hourly rate in pounds sterling. Toolmakers 7/5d; Fitters and Turners 7/1½d (Certified 7/3½d); Process Workers 5/11d; First Class Electroplaters 6/11½d and First Class Welders 7/1d. Minimum wage for female workers was \$8-12-6 per week. Holidays 2 weeks for day workers, 3 weeks for shift workers.

Overseas marketing promotions were discussed along with the Government's attitude to Reserve Bank grants for genuine business overseas, and Inland Revenue Department change of policy allowing the costs of creating export markets to be non taxable. Customs were being contacted regarding duty free entry of plastic machinery to boost the export trade.

Mr Barry Burton replaced Mr Harry Martin as Executive Officer.

The 1962 AGM was held in Wellington. A tremendous agenda covered a full range of items now regarded as hardy annuals but constantly needed actioning and upgrading of effort. An interesting matter of new business was a proposal to fund PINZ publicity and education by a 2/- per ton levy on raw material imports.

Alan Northover was elected President and Vince Hertherington Vice President and Merv Cox supply house representative on the Executive.

1963 was a good year for New Zealand sport. The England cricket test series played in New Zealand was won 2-1 by the Kiwis, the All Blacks beat the Lions in the Rugby test match series in New Zealand, and Kiwi golfer, Bob Charles won the British Open. Barry Davenport was the first person to swim Cook Strait (11 hours 13 minutes).

There was a National Airways Corporation DC3 crash in the Kaimai Ranges, with all 23 passengers and crew killed.

New Zealand surgeons performed the world's first unborn baby blood transfusion.

National was re-elected Government.

Overseas the World President of Phillip Morris said "Cigarettes will ultimately be exonerated as a cause of cancer!". The British Tory Government reeled under a spy scandal involving John Profumo, Secretary of State for War and Christine Keeler.

The first kidney transplant was performed in UK, and in the same country the one million pounds sterling Great Train Robbery on August 8th was a sensation.

All this drama was overshadowed by President John Kennedy's assassination in Dallas, Texas on November 22nd.

PINZ returned to Wairakei Hotel for its weekend long bi-annual meeting 26th-29th April with up to this time a record attendance of 56 delegates.

The meeting approved a National Plastics Show to be held in Wellington in October.

Representatives of the New Zealand Plastics Industry Industrial Union reported that the industry had been approved for training apprentices but only in approved premises and the introduction of a "Code of Practice" for the guarding of machinery used in plastic products processing.

The AGM held in Wellington on 31st October attracted 68 delegates and was held in conjunction with the first New Zealand National Plastics Show at the Majestic Cabaret. This milestone event was ample evidence of the flourishing plastic industry at that time.

Apart from a large list of hardy annual subjects a strong appeal was authorised to be made to Government on the basis that the future well-being of the plastics industry depended on restriction of imports of finished goods.

The meeting resolved to support a Breckell and Nicholl's Plastics Trade Directory.

Brian Williamson was elected President and Merv Cox Vice President and Jack Fisher supply house representative. The Institute's rules were amended with the Executive to include a national president, vice president, immediate past president, supply houses nominee and presidents and vice presidents of the three Institute branches.

Synopsis of Second Decade of PINZ

So ended the second ten years of the Plastics Institute of New Zealand. PINZ having safely survived adolescence was both high in popularity and essential to the fast growing plastics industry, and had become an acknowledged bargaining power between the Industry and Government. Furthermore PINZ was becoming accepted and known internationally.

New Zealand itself was experiencing a transformation in economics from essentially a primary producing country to a fledging industrialised nation. There were still growing pains, but there was full employment and a general feeling of good times about.

An example of the growth of the Plastics Industry is this plant survey conducted late 1962 for statistical evidence for 1963/64 import licensing of raw material and plastic machinery:

Injection Moulding - Total Machines 86
(Up to 2.5 ozs 42; 3 to 8 ozs 35; 9 to 16 ozs 5; over 16 ozs 4)

Compression Moulding - Total Machines 101
(Up to 25 tons 13; 25 to 30 tons 17; 50 to 100 tons 45; 100 to 200 tons 21 and 200 tons over 5)

Extruders - Total Machines 52
(Up to 2 inch - 15, 2-3 inch 18, 3-4 inch 13, 4 inch over 6)

Vacuum Forming - Total 21 (24" x 24" to 72" x 48")

High Frequency Welders - 88

In addition there were an unknown number of machines for forming and sheet processing, foam plant, fibreglass processing equipment and fabric coating plants.

Towards the end of 1962 New Zealand joined the International Monetary Fund. There was some speculation as to how this would affect our standard of living, which was pretty good at the time.

1964 - 1973 : "THE THIRD DECADE"

1964 heralded many changes in New Zealand and worldwide there was an ultra modern fashion revolution. Mary Quant and Vidal Sasson (both Britons) became "Icons" of the 1960's with their bold designs of fashion clothing and haircuts respectively.

A survey of the workforce showed 42% of the women's workforce to be married women, graphically illustrating the number of jobs that were available in the country at this time.

"Beatlemania" hit New Zealand as thousands of caterwauling teenagers flocked to see them in the flesh.

Auckland's population passed the ½ million mark, and the last tramcar in New Zealand, a "Fiducia", ceased operating on the Lambton Quay - Oriental Bay run in Wellington.

The New Zealand pacer Cardigan Bay was a sensation in the USA, but back home there was despondency over the Wallabies thrashing the All Blacks in Wellington 20-5, the first All Blacks loss.

Elsewhere in the world, Elizabeth Taylor and Richard Burton began their tumultuous marriage, the US Supersonic B70 bomber had its first flight, the first US troops began hostilities in Vietnam while in Australia Donald Campbell set new speed records on land of 403.1 mph and on the water of 276.33 mph.

For the first time in ten years, New Zealand horses were successful in the Melbourne Cup, Polo Prince first and Elkayel second.

PINZ held it's bi-annual meeting at Hanmer Springs on the weekend of 8-11 May. The business minutes included a rare item, "members considered that they had been reasonably well treated in the Customs Department "A" allocations for moulding powder, plastic sheet and machinery imports"

The Industrial Employers Meeting reported technical training and apprenticeship to be going well, although penal rates for shift workers were seen to be a problem.

Mr Emil Poli of Dow Chemicals USA addressed the meeting and a British Plastic Federation film production was shown after which members agreed to purchase four prints at £27-16-0 each after the insertion of appropriate New Zealand credit lines. The publicity film, the "Shape of Plastics" was subsequently well sort after throughout the country.

The 1964 AGM held at the Mutual Motor Lodge, Kilbirnie, Wellington attracted 70 delegates and associates. For the first time voting proxies were used. The President in his report referred to many decisions being made by the Institute that were having a major effect on the future of the plastics industry.

An interesting comment was that the Government Stores Board had called tenders for seized contraband goods, including plastic flowers from Hong Kong.

A remit from the Executive that the Rules be amended to include the appointment of Life Membership was passed with acclamation, and Mr H.C Urlwin and Mr H.L Lewis, foundation President and Vice President of the Institute were elected the first Life Members of PINZ.

There was discussion on a PINZ "Code of Ethics", and a milestone decision was made to employ a full time Executive and Publicity Officer. This was a vital decision as in the past the Institute had time-shared this position with other manufacturing groups. The new secretarial fee was £425pa and the auditors six guineas per annum.

Merv Cox of ICI was elected President, John Bull Vice President and Peter Key of Henry York Ltd, supply house representative on the Executive Committee.

1965 The quote of this 1965 year is recorded as "Political power grows out of the barrel of a gun". (Mao Tse Tung). The escalation of the war in Vietnam was a typical example of this. Australian and New Zealand forces joined in the conflict and at home the USA was plagued by racial tensions.

Russia was still ahead of the US in the space race with the world's first space walk and the launching of a communication's satellite.

Concord supersonic passenger planes were expected to cut the flight time London to New York down to 3 hours and London to Japan to 12 hours.

Britain's "war-horse" Winston Churchill died on 24 January and was given an enormous funeral cavalcade.

In New Zealand, the name TEAL (Tasman Empire Airways Ltd) had changed to Air New Zealand.

TV watchers were having the new experience of viewing two very different programmes, the "Yuppie" type "Avengers", starring Diana Rigg and Patrick McNee, and "Coronation Street", the weekly domestic drama. The Springboks lost a test series in New Zealand to the All Blacks. The Melbourne based Seekers were the new musical sensation and Whangarei vigilantes ousted the "Hells Angels" from that city.

PINZ's 1965 started with the bi-annual conference held at Wairakei over the weekend 30th April - 3rd May. Barry Burton was recommended as the first full time executive officer. Two high Government officials, Mr Ben James of Industries and Commerce and Mr Norm Laking of the Customs Department, addressed the meeting and this close liaison with senior government officers was to become a factor in the success of PINZ's development.

These were difficult times for sheet plastic fabricators with a shortage of PVC materials.

Breckell and Nicholls had published 7000 copies of "NZ Plastics" and there had been an extra 13,000 copies of the information section of that book printed.

There was concern that 11% of raw material products had been lost by shipping in multi-wall paper bags of poor quality.

The AGM celebrating the 21st year of PINZ was held at Takapuna on 3rd November 1965 with 70 delegates in attendance including ten Past Presidents of the Institute.

Reference was made to the New Zealand - Australia Free Trade Agreement that had just been concluded by both Tasman area Governments, and the challenge it presented to the Industry.

The work of the Technical Training sub-committee was applauded by delegates.

The Institute now enjoyed liaison with several overseas plastic organisations and Consolidated Plastic Industries (NZ) Ltd, were congratulated on receiving an award in a recent Australian Plastics Industry competition.

Certificates of membership of PINZ were instituted by agreement of the meeting.

John Bull was elected President, Terence Nolan Vice President and Peter Key was re-elected as supply house representative.

1966 is known as the year that British "Rock" ruled the music world. The United Kingdom also had three famous firsts - the introduction of the world's first plastic credit card was claimed by Barclays Bank, oil was found in the North Sea, and the first VTOL aircraft, the Hawker Harrier, flew at the Farnborough Air Show. However the terrible Aberfan, Wales school slip disaster killing 116 children somewhat spoilt the glitter of achievements.

In New Zealand, 1966 is noted for the year that PM Holyoake bragged that unemployment was so minute that the knew all the names of the people concerned. Surveys showed a 37% increase in employment swing to workers engaged in secondary industries compared to the traditional primary industries. The National Party was re-elected.

At Auckland the International Airport at Mangere was opened with a huge air display, and MOTAT (the Museum of Transport and Technology) was founded. Air New Zealand started a service to Hong Kong and Manila via Sydney. Favourite motion picture was "The Sound of Music", and a popular TV programme was "Till Death Us Do Part" starring super bigot Alf Garnet. The All Blacks defeated the Lions 24-11 to win the test series in New Zealand 4-0.

The 1966 bi-annual conference was back to Hanmer Springs. Dr B.C Lee of the Education Department advised members that the NZCE now had a plastics option for certification.

A likely change in customs tariff was mooted with the forthcoming change to the Brussels Tariff Nomenclature in 1967 and the possibility of the UK joining the European Common Market was likely to be a real threat to New Zealand's balance of imports. The Institute had made representation to the Government to be kept advised on this subject. In general this was being honoured, particularly in regard to senior Customs officers and the Industries and Commerce departments.

The 1966 AGM was held at the White Heron Lodge at Kilbirnie, Wellington (formerly the Mutual Motor Lodge). The annual President's report was followed by a discussion on the Annual Accounts. Now that the Institute had a full-time Executive Officer it was decided that future meetings should have an income and expenditure budget to approve. It is interesting to note that the income for the past financial year was £2,347 and after expenditure there was a surplus of £170 in general funds and a surplus of £180 in the Education and Publicity fund.

Mr Allan Dellow of the Manufacturers Federation up-dated members concerning the Free Trade agreement with Australia.

A new look PINZ lapel badge was to be designed.

Terence Nolan was elected President and David Reese Vice President. Maurice McKinley was the new supply house representative.

1967 was notorious for being the worst balance of payments year since World War II. This crisis forced the Government to devalue New Zealand currency into line with the Australian dollar (metric conversion had taken place there by this time). In fact this "hiccup" in the economy virtually signalled the end of the really good times in New Zealand, and the World Bank sent a team of experts to advise the Government, recommending that because of the reliance on primary produce, and the likelihood of the UK joining the EEC, indicative planning was needed. It was a trendy terminology, no one knew quite what it meant, but it sounded good.

Part of the indicative planning was Finance Minister Muldoon's first Mini Budget which amongst other things raised car customs duty 40% and petrol rose four pence per gallon.

June 10th was D Day for New Zealand's conversion to decimal currency. After months of planning and education everything went well excepting that prices went up marginally to allow the conversion from pence to cents.

This was a great year of activity for the Government. Two referendums were taken, one for a 4 year term of Government was defeated and one authorising a change from 6pm to 10pm closing of bars won by a colossal majority.

Elsewhere in New Zealand Fred Ladd flew a Widgeon Amphibian under the Auckland Harbour Bridge, Traffic Officers began breath and blood testing for drunken driving, Denny Hulme became World Champion driver, and the MV Hawea started the first "roll on" service from Auckland to Dunedin.

Internationally, the Vietnam war dragged on with horrific casualties, and Israel attacked and defeated the Arab nations of Egypt, Syria and Jordan in the Six Day War, 1st to 5th June 1976. Dr Christian Barnard performed the worlds first heart transplant in South Africa.

Hotel Wairakei was the venue for the PINZ bi-annual conference, 29th April to 1st May, attended by eighty delegates.

Two major resolutions were passed. One on a system of quantitative import control and adequate tariffs to support the New Zealand plastics industry and one to set up a Tariff Committee. The usual hardy annuals on technical training, export incentive, and licenses for raw materials received an airing and new subjects were the use of the word Kiwi in product branding and matters concerning NAFTA (the New Zealand - Australia Free Trade Agreement).

The AGM was again held at the White Heron Lodge in Wellington. A milestone decision, a change in per annum membership fees based on number of employees, ie: up to 100 persons \$200, 101-250 persons \$250, 251-500 persons \$300 and over 500 employees \$400. The education and publicity fund was to be on the same per person per annum basis.

The value of products for the plastics industry was \$45 million. \$650 was granted the Education Publicity Committee for a transportable plastics display.

David Reese was elected President and Harry Hobin Vice President and Maurice McKinley re-elected as the supply house representative.

1968 was a sad indictment on military might. The Vietnam War dragged on with US and Vietcong atrocities shocking many. The "Cold War" was at its height. A proliferation of nuclear weapons and the fear of nuclear missiles wiping out life on earth continued to make deterrence work. France was virtually in a state of civil war and Russian troops brutally put down an uprising in Czechoslovakia. Two violent assassinations in the USA killed Martin Luther King, civil rights leader, and Robert Kennedy, aspirant to the White House. Richard Nixon was elected President on a platform of intervention and stopping the un-winnable Vietnam conflict.

New Zealand was having its own problems with Cyclone Giselle sinking the Inter-island Ferry Wahine at Wellington in 125 mph winds, causing the loss of 51 out of 734 passengers and crew.

There was yet another Rob Muldoon "mini budget", and TV and Radio licenses were combined and cost an unheard of \$16 per annum.

On the credit side the All Blacks whipped the Wallabies 2-0 in the test series played in Australia, Cardigan Bay's winnings in the USA passed the US\$ one million mark, and unemployment in New Zealand was the lowest worldwide at a staggering 1% of working population.

Back at PINZ the main thrust was coping with the balance of trade deficit, and the Government's policy of "Indicative Financial Planning" which gave Treasury a far greater control over overseas spending than was good for the growth of plastic goods manufacture.

The bi-annual conference was again held at Hanmer Springs and discussion on tariffs and related matters took up most of the proceedings. There was agreement on a submission to the Tariff Development Board that powder, granules, flakes, blocks, lumps and similar bulk forms of polyethylene or polystyrene should be added to Schedule A of the NAFTA agreement. A tariff sub committee had been formed.

It was considered that a basis allocation of 115% of the previous years moulding powder license was insufficient to sustain the growth of the plastic industry.

The new transportable plastic products display was unveiled and approved for display at the Waikato Winter Show and Christchurch Industries Fair.

The 1968 AGM was held in Wellington at which an annual membership fee for smaller plastic goods manufacturers was promulgated as follows:

Manufacturers with number of employees: 1 to 5 - \$6, 6 to 15 - \$25, 16 to 30 - \$40, 31 to 50 - \$60, 51 to 75 - \$100 and 76 to 100 - \$150.

Associate Members: sole operators - \$5, 2 to 3 employees - \$20, and 4 plus employees - \$50.

The AGM proceedings by now had developed into a prototype format of reports from various sub-committees, ie: Supply and Tariff, NZ Manufacturers Federation matters, Technical Training and Publicity, and reports from conciliation proceedings and other matters relating to the Industrial Union of Employers. Branch activities were also reported.

Harry Hobin was elected President and Tom Short Vice President, with Wal Raine as supply house representative. It is interesting to note that the President Harry Hobin followed his father John Hobin who was President in 1958.

1969 saw the US in front again in the "Space Race" after Apollo II landed a moon module, with Neil Armstrong and Buzz Aldrin being the first astronauts to land on the moon.

Two famous firsts were the maiden flight of a Boeing 747 wide bodied jet liner and the maiden voyage of Queen Elizabeth II, probably the world's last super liner.

In New Zealand, from the musical Hair, the age of Aquarius had emerged with a new breed of teenagers, "happy go lucky" Hippies, supporting way out clothes, long hair for both sexes, long sideburns for men. As a paradox long maxi skirts took over from mini skirts for more mature women.

Ford Capris were the envy of many motorists, the first roll-on ship the MV Maheo went onto the Trans Tasman run, obviously an endorsement of NAFTA, and the All Blacks beat Wales at Eden Park 33-13 in their 17th consecutive rugby test victory.

The voting age went downwards from 21 to 20 and this may have provoked the narrow win of the Holyoake National Government (45 seats to 39 seats) in the November election.

The 1969 PINZ bi-annual meeting was held at Wairakei where Mr J.D.M (Mort) Foreman was elevated to be the Institute's third elected Life Member. This was a fitting tribute to his lifetime service to the plastics industry.

Mr Bemrose of the Custom's Department spoke on the Governments policy to move away from import licensing towards protective tariffs.

Mr Morrison from the Department of Industries and Commerce addressed the meeting on import licensing. The Institute was satisfied with this aspect of importing and expressed anticipation of a policy of de-licensing plastic raw materials in the near future.

The Executive Officer reported that one of the first plastic extruders designed and produced in New Zealand had been presented to the Institute. Producing initially narrow watch bands from PVC it had been built in 1941 by Geoff Calvert and Ken Upton. It is believed that this machine was eventually presented to MOTAT, where it was a working exhibit on "Live Weekends".

The 25th Annual General Meeting was held in Christchurch co-incidental with a "Plastics Week" in that city. There were 88 persons present.

Discussion on import licensing showed a shortfall in supplies of Cellulose Acetate film and sheet for clear visual packaging (a relatively new plastic development) and this was conveyed to Mr Norm Laking of the Customs Department.

Mr Harry Hobin commented on dispute claims between the workers union and the employers and on conciliation towards a new award with an increase in wages.

Mr Sam Preston, Federal Vice President of the Plastics Institute of Australia addressed the meeting on the similarity of PINZ and PIA's problems.

Tom Short was elected President and Hap Hawkins Vice President, with Wal Raine re-elected representative on the Executive for supply houses.

1970 The Vietnam war still raged and many African States were experiencing civil war after their independence. Arab Terrorists hijacked 3 jet liners and 225 passengers to a Jordanian desert.

New Zealand celebrated the bi-centennial of Captain Cook's landing in New Zealand with a visit of the Queen and Prince Phillip and the Royal Family.

The Government announced complete conversion to metric measurements to be completed by 1976.

The RNZAF purchased 14 Skyhawk Jet Fighters.

Jean Batten, pioneer aviator, came out of hiding and revisited New Zealand. Range Rovers replaced wartime Jeeps on New Zealand roads, costing \$4,000. A New Zealand grey "Baghdad" won the Melbourne Cup. "Mash" was a hit on NZTV starring Alan Alda as "Hawkeye" and Loretta Swit as "Hot Lips" Houlihan.

The Government announced a two month price freeze to halt rising inflation.

The All Blacks winning streak ended with a loss to the Springboks in South Africa. Top racing driver Bruce McLaren died when his racer exploded in the UK.

PINZ's 1970's began at the bi-annual meeting, this time held at Rotorua, 27th-29th April.

As usual tariff and import licensing matters took up most of the business time and debate. In a nutshell, those present had some grave misgivings of the ability of the Government bodies concerned to do the spade work and research needed to ensure continuation of import licensing so that it was not removed until tariffs had been reviewed. There were strenuous objections to the exemption for cast acrylic sheet, and a worry that a proposed examination and isolation of polyethylene granules and plastic moulding powders might be held up by objections and the delay to the supply of same be detrimental to the industry's requirement. Resolutions to this effect were aimed at the Customs and Industry and Commerce Departments as well as a newly formed Emergency Protection Authority.

The forthcoming Import Schedule based on 105% of the previous year was thought to be insufficient and additional licenses were seen to be needed for various items.

The three National Plastic Shows held in New Zealand had been successful and surplus funds for the next show were being held in a reserve fund. The alternating of shows and conventions between Australia and New Zealand was discussed.

Mr Jim Donlon of Breckell and Nicholls reported that the preparation of a 1970 Plastic Trade Directory was proceeding, but the present level of advertising in the "NZ Plastics Journal" was not an economic proposition.

The appointments of Alan Taylor and Barry Blackshaw were made to replace Ken Fletcher and Alan Northover on the Plastics Standards Committee, and the latter thanked for their many years of fine service to the cause.

The 1970 AGM was held in Wellington in the comfortable facilities of the Overseas Passenger Terminal of the Harbour Board.

Since its inception there had always been some degree of conflict of interest of members in regard to licenses and tariff matters and in general the Institute had taken a gentlemanly attitude to needs of supply houses business on one hand and manufacturing on the other hand. At this AGM guidelines were clearly defined to the great credit of all concerned and reflected future accord and harmony in the Institute. Basically it resolved that good communication needed to be maintained between supply houses and manufacturers and the Executive Director, so that he could operate within the guidelines but still be aware of all tariff and license applications.

Mr Laking advised that the bi-annual meeting requests to the Emergency Protection Authority had received consideration and were upheld in regard to the retention of licenses for acrylic cast sheet pending a full investigation by the Trade and Development Board in due course.

Concern was expressed over the limited number of students studying the NZCE Plastics course and the Executive discussed ways to promote the Industry.

Mr Hap Hawkins was elected President and Wal Raine Vice President. The new supply house representative was Doug Haxton.

The report of the Industrial Union of Employers was longer than usual. There had been much negotiation regarding a new award settlement. Conciliation had been difficult and there were substantial increases in wages and benefits, but also some clauses regarding power to the employers to withdraw or amend premium bonus schemes and to alter conditions of employment of part-time workers.

This time of high employment gave the worker's union an advantage and they made hard bargains. The PINZ assessors of the Employers Union impressed upon members that direct action by firms with the Workers Union was dangerous to overall settlements and a definite "No-No".

In a survey to ascertain the Plastics Industry labour requirements in five years time, 40 member companies indicated a 50% increase. Obviously this signalled a need for more plastic worker migrants, and this fact was imparted to the Department of Immigration.

1971 was the year one day cricket had arrived and was a major spectator sport success. The first Columbus Line container ship arrived in Wellington. Warkworth satellite station brought the first live overseas telecast on to the nations air waves. The Silver Star super sleeping express commenced service between Auckland and Wellington and the last steam train ran from Christchurch to Dunedin. Once again a New Zealand horse "Silver Knight" won the Melbourne Cup. Another Muldoon "mini budget" raised TV licenses to \$20 per year.

Overseas, Rolls Royce went bankrupt over a hardline deal with Lockheed to build aero engines, US Astronauts drove on the moon in a "moon buggy" and Dr Christian Barnard performed the worlds first lung/heart transplant operation in South Africa.

In the midst of this drama PINZ held its bi-annual meeting in Queenstown at the end of April. The sixty odd delegates brought with them their partners to enjoy the South Island's traditional hospitality.

Tariff and import licensing matters took up most of the time at the meeting. In general it was felt that the plastics industry had been treated fairly well this year. This would almost qualify as a milestone "famous first".

An "Award by the Plastics Institute of New Zealand" for the most outstanding student, in the final year's examination in NZCE Plastics was announced. The value was \$100 and the first recipient was Neil Forrester of Hamilton.

Other items of interest were an Arburg "all rounder" injection moulding machine which was being presented to the Central Institute of Technology, a thirty week part-time plastics course was also planned for that Institute. Metrication had now become a regular item on the agenda.

Undoubtedly the social functions, a "Gold Miners" night in Arrowtown and a cruise on the SS Earnslaw, set the scene for further conferences since, and were memorable highlights of the Queenstown meeting.

The Overseas Terminal at Wellington was again the venue for the 1971 AGM. Roy Faulconbridge was honoured with Life Membership.

The President warned members not to be lulled into a false sense of security regarding import controls, and that the plastics industry would still be subjected to extremely keen overseas competition.

Licenses 150% of the previous year were being sought for raw materials to satisfy expansion in the New Zealand industry.

Wal Raine was elected President, Brian Wallace Vice President, and Ian Fairgray supply house representative.

1972 was a year signifying a winding down of hostilities in Vietnam. In Hong Kong the Queen Elizabeth super liner, the biggest passenger ship in the world burned and capsized. Arson was suspected.

In New Zealand long standing Prime Minister Keith Holyoake stood down in favour of "Gentleman" Jack Marshall.

Celsius took over from Fahrenheit on the weather forecasting scene. Christchurch Town Hall opened and Labour won the elections 55 to 32 seats. Norman Kirk became Prime Minister, and selective National Service training (the "birthday ballot") ceased.

The 1972 bi-annual conference was held at Waitangi and attended by 78 delegates. Past President John Hobin was accorded the honour of Life Membership.

License values were 110% above previous year. Protective provisions of duty drawback on floor coverings was subject to criticism.

A "Plastic in Schools" educational kit was being compiled. Otherwise this meeting was confined to "annual hardies" of previous meetings excepting that the Presidents report from the Employers Union reminded members that under the stabilisation of Price Regulations rates of remuneration could not be increased without the approval of the Remuneration Authority.

The AGM held at the Overseas Terminal in Wellington was well attended. Geoff Calvert became the Institute's sixth Life Member.

A total expenditure of \$8,318.29 exceeded income by \$586.02, while the Education and Publicity Fund showed a healthy balance of \$5,803.69. Reflecting the growth in industry, corporate manufacturing levels were amended as follows: 501 to 650 employers - \$787.50pa, 651 to 800 employees - \$900.00, 801 to 950 employees - \$956 and over 950 employees - \$1,350.00pa. There was also an increase in corporate associate membership fees, ie: sole operator - \$50.00pa, 2 to 3 employees - \$62.50pa and 4 plus employees - \$125.00pa.

Brian Wallace was elected President and Barry Blackshaw Vice President. The supply house representative remained Ian Fairgray.

1973 was the year that probably caused political commentators to dub the nineteen seventies "The Uncertain Seventies". After several years procrastination the United Kingdom finally joined the European Economic Community (EEC). In October the British House of Commons voted 356 to 244 to join in a non-party free vote. Although the treaty provided for a transitional period to safeguard British farmers and the New Zealand dairying industry it was nemesis for Australia and New Zealand, particularly as the so called "safeguard" decision and timing was entirely in the hands of European primary industry representatives. This put the New Zealand Government into a state of uncertainty as the long dreaded event had actually happened and the traditional marketing ties with Britain over the last century were now certain to be broken once the protective quotas for produce were ended. The latest census revealed New Zealand population has passed the 3 million mark, while the Government statistics showed a 56.6m sheep count. The All Blacks beat Wales, Scotland and England in test matches in the UK. Air New Zealand took delivery of three DC10 wide body jets.

After ten bitter years of battle a Vietnam peace treaty was signed in Paris. Newly re-elected President Richard Nixon called for "peace with dignity".

In the UK Princess Anne said "no romance with Mark Phillips", but 2 months later they were engaged and six months later married on 14th November.

The first US Space Skylab Station was in orbit, and the Queen opened the Sydney Opera House on October 20th.

The 1973 bi-annual conference of PINZ was held in the newly renovated Wairakei Hotel with 94 delegates in attendance. For the first time seminars and working sessions on specific matters were part of the agenda.

Raw material supplies, particularly polystyrene ABS and PVC, were short on world markets and some prices had risen 70%. This was a result of rising oil prices in the Middle East.

The 1973 AGM was again held in the Overseas Terminal at Wellington with 92 delegates and 8 invited guests.

Budget expenditure for the forthcoming year was estimated at \$25,000 and subscription income was increased by 40% to meet the expenditure budget.

Barry Blackshaw was elected President and Ron Coleman Vice President with Pat Dolan supply house representative.

Last report of the Third Decade was from Executive Officer Barry Burton who had had a most successful visit to England and had brought back with him an enormous amount of information on plastics.

Synopsis of the Third Decade

"PINZ" was now approaching 30 years of age, and maturity combined with success had helped growth and stature of the Institute.

The Third Decade was to be the last halcyon years of the post war boom years. Racial tensions and the war in Vietnam had demoralised the USA. Britain, put into a corner by the European Common Market, had no option but to join them, thus severing trade relationships with her former colonies in the British Commonwealth.

Space had been conquered, but racial tensions, the Cold War and fear of nuclear conflict afflicted the world's population.

Union strife in New Zealand was synonymous with over employment. The continuing good work of the Plastics Industry Employers Union re-inforced PINZ's position, but rising inflation was causing speculation for the future.

Seven Tariff and Development Board Inquiries had been held and it was reported that the Institute was held in a high regard by the Tariff and Development Board. The significant role played by the sector groups and the supply houses in obtaining and making available supporting information was also the subject of favourable comment.

A major step forward was the recommendation that, in recognition of the need for a Technical Training Officer specifically for the Plastics Industry, one should be appointed.

In the annual design competition, apart from the Awards and Certificates of Special Merit, a Premier Award was made available. The first such Award was presented in 1972 to Plastic Products, Hamilton.

1974 - 1983 : "THE FOURTH DECADE"

By 1974 the seventies was becoming a turbulent decade for New Zealanders. For the first time since World War II unemployment statistics began to rise. Because of the stranglehold on oil supplies by the Middle Eastern Arab countries, petrol prices had doubled as had oil by-product raw materials for the plastic industry. The UK entry into the EEC was beginning to be felt as quotas of primary products lessened, and a large surplus in the balance of payments began to turn into a deficit. It did seem that the post war boom years were nearing an end, yet in New Zealand (probably owing to the international idealism of PM Norman Kirk, who was his own Minister of Foreign Affairs) there was a feeling of strong good will as the Pacific Basin countries became a prospective market for both primary and secondary industries of this country.

The Commonwealth Games were held in Christchurch, New Zealand winning 9 gold medals. The All Blacks again trounced the Wallabies in a test series, and for the first time ever, New Zealand cricketers after losing a test series in Australia, drew a follow-up series in New Zealand in March.

On the political scene, Robert Muldoon ousted "Gentleman" Jack Marshall for leadership of the opposition, and Norman Kirk died in office. He was replaced as Prime Minister by Bill Rowling. Widespread strikes followed union leader Bill Anderson's imprisonment and credit cards were introduced into New Zealand.

In the UK, BP and Burmah Oil announced the discovery of large oil fields in the North Sea, and in the USA Richard Nixon was impeached over the "Watergate" scandal and resigned as President in favour of Vice President Gerald Ford.

The 1974 bi-annual conference scheduled to be held in sunny Nelson was severely disrupted. On the weekend 27 to 29 April, Wellington was buffeted by strong gales and flights and inter-island ferries were unable to cross Cook Strait. Therefore, while the delegates who had by-passed Wellington were playing golf in sunshine in

Nelson, the marooned contingent were sitting without electricity in Wellington hotels. However by Monday 29th the meeting was held at the Rutherford Hotel at Nelson.

A good deal of the meeting was taken up by important issues of that time in regard to increased productivity, price restriction measures and raw material license allocations.

The Institute agreed to Thompson Publications (NZ) Ltd taking over the production of a 1974/75 Plastics Directory and the Executive Officer was authorised to establish an Editorial Liaison Committee to work with the publishers.

It is interesting to note that there was a move to investigate holding the next bi-annual conference at a venue outside of New Zealand.

Another "famous first" for the Institute was the selection of a panel of specialist members to meet with a similar panel of the Australian Plastics Institute to discuss common interests in the NAFTA agreement. The New Zealand panel was:

Extruded Products	-	Brian Wallace
Moulded Products	-	Len Belz
Film and Bags	-	Hap Hawkins
Fabricated Products	-	Harry Hobin
Coated Fabrics	-	Tony Farrow and Fred Brown
Raw Materials	-	Maurice McKinley

This really was a milestone development in the PINZ and PIA relationship.

A concern of the meeting was a license retention for Phenol Formaldehyde and Polycarbonate powders.

The 1974 AGM was held in Wellington at the Overseas Terminal. The President presented a report on the Australia/New Zealand meeting of plastic industries panel representatives in Canberra on 18-20 September and was pleased to report that the meeting had achieved its objective. This was to ensure that the original aim of NAFTA to produce a 20% annual growth of Trans Tasman trade could also be reached in the plastics industry.

The annual budget required a rise in subscription levels to accommodate the extra activity of the Institute with NAFTA business, travel, training and the necessity for the provision of a full time Assistant Executive Officer to cope with the increasing work load.

There was general approval of the plastics supply situation although shipping delays and price fluctuations did cause some concern.

A market demand for plastic motor spirit containers prompted the meeting to make a strong submission to the New Zealand Standards Association to speed up matters to allow production to commence.

Low labour productivity and absenteeism was a problem of this time.

A Plastics Training Adviser, Mr Arthur Lane, had been appointed and was advising on tertiary educational courses, and a Plastics Technical Services Centre based at the Central Institute of Technology had been mooted to provide research facilities for the industry.

Barry Blackshaw was re-elected President and Tony Farrow elected as Vice President, with Pat Dolan taking up a second term as supply house representative. It is interesting to note that since the last meeting Ron Coleman, George Peters and Tony Farrow had each held the position of Vice President for a short time.

1975 is remembered for the re-opening of the Suez Canal after being closed for eight years; and for the continuing stranglehold on world oil prices by OPEC (The Organisation of Petroleum Exporting Countries) who had raised oil prices by yet another 10%.

In New Zealand there was great joy over John Walker gaining the world's mile record in 3 minutes 49 seconds.

The New Zealand scene was notable for rapidly rising inflation. Among other things rising oil prices and a decrease in exports resulted in a \$1.3 billion balance of payments deficit and in an attempt to cure this, borrowing overseas increased public debt to \$863 million.

Assisted immigration into New Zealand ceased after 20 years.

The general elections this year gave National a huge majority and started a nine year spell of "Muldoonism".

The PINZ bi-annual meeting was held at Wairakei, 26-29 April, with 95 delegates and seven invited guests. Barry Burton had resigned the position of Executive Officer and there were new appointments of Trevor Bates as Executive Officer and Phillip Walker as Assistant Executive Officer.

Mr Jack Quinn was elected Life Member in recognition of his 43 years in the plastics industry.

On the technical training front the Government was being urged to provide accommodation for students, and the Institute, in a bid for new plastic technicians, spent \$300 for a two page spread in that year's Careers Manual. Arthur Lane, training officer for the Institute, recommended modular training in industry courses.

Mr Don Walker, Assistant Secretary of the Department of Trade and Industry, addressed the gathering on "Government and the New Zealand Plastic Industry by the year 2000". (Unfortunately there seems to have been no record kept of this keynote address. It would be interesting to compare conditions as the turn of the century nears).

The 1975 AGM was held at the Overseas Terminal in Wellington and a keynote address on the "Current Economic Situation in New Zealand" by Mr Wayne Coffey, an economist with the NZ Manufacturers Federation, suitably impressed members.

At these meetings it was noticeable that environmental matters were occupying an increasing amount of time. At this particular meeting locally made PVC resins were being planned and an issue discussed was residual levels of Vinyl Chloride Monomer, especially if used for water pipes.

A survey was to be taken relating to plastic waste recycling under the following headings:

- Total raw material used per year
- Processed waste generated each year

- Waste purchased for recycling during the year
- Specific questions relating to waste plastic for recycling

This was a substantive milestone for the Industry. Support for the survey was requested by the Department of Trade and Industry.

Tony Farrow was elected President, Len Belz Vice President and Jim Wheeler, supply house representative.

1976 is the year that the whole world commended the Israeli commandos who flew 2500 miles and rescued 100 hostages from a hi-jacked Air France Airbus at Entebbe Airport in Uganda.

Jimmy Carter became President of USA.

In 1976 New Zealand inflation had risen to 18%. There had been several devaluations of the New Zealand dollar from 1973 in an attempt to increase export earnings.

Prime Minister Muldoon introduced a new taxation funded National Superannuation Scheme with a retirement age of 60 for all New Zealanders. This superseded a previous Labour Government scheme of a contributory nature.

The Springboks beat the All Blacks 3-1 in a test series in South Africa.

New on the New Zealand scene were skateboards and nuclear ship protesters at Wellington.

A New Zealand horse "Van der Hum" won the Melbourne Cup at 9:1 odds in atrociously wet weather.

The 1976 bi-annual meeting was held in New Plymouth on 10-12 April. This meeting was notable for a streamlining of procedure. The new Executive Officer Trevor Bates presented to the meeting a comprehensive report which summarised activities of the Institute since the last meeting under the headings of:

- Member's Newsletter
- Product Survey
- Plastics Directory
- Plastics Journal
- Recycling Questionnaire
- Statistics and Standards
- Customs Tariff Review
- Inter-firm comparison 1976

Both that and the President's bi-annual report were extremely comprehensive and included in the conference folder.

The Industrial Union of Employers had adopted a Wellington Branch resolution that:

- a. All members of PINZ to be informed of issues to be raised during Award negotiations.
- b. Each Branch to hold pre-reconciliation meetings so that individual member companies can express their views.
- c. Each Branch to convey to the PINZ National Executive a summarisation of members views.
- d. The National Executive, after liaison with the Industrial Committee, to brief the assessors appointed by the Institute for their assistance in award negotiations.
- e. The assessors to report back to PINZ who would in turn report back to members on the outcome of negotiations.

A debate on the establishment of a PVC resin plant at Marsden Point, Whangarei was open to the press and TV. The result of the discussions were that the Institute supported the establishment of a local manufacturing industry, and an initial 10% duty protection. The guarantee of continuous supplies of Vinyl Chloride Monomer was an important aspect.

Concern was expressed on internal transport costs and the high cost of rail compared to road transport costs. It was suggested that the 40 mile road restriction be raised to 100 miles, and that road transport trucks be allowed to contract for return loads.

The 1976 AGM was held at the Overseas Terminal in Wellington with 100 delegates present.

The "Recycling Questionnaire" to members revealed that 80% of the scrap generated was being recycled.

An address by Graham Fox, Director of Industrial Development centred on four important points; the improvement of technology and productivity, putting maximum New Zealand content into manufactured products, being internationally competitive in price and quality, and developing export markets.

John Tivey, the new plastics training officer, was introduced to the meeting.

The Executive Officer Trevor Bates presented a report on his recent trip overseas where he attended the World Conference of Plastic Association Directors in Switzerland as well as a Society of the Plastics Industry Midwest Conference in Chicago, the SPI in New York and Canada, the British Plastics Federation in the UK, and the Milan Plastics Fair in Italy. Members were impressed at the coverage of his trip and the large amount of valuable knowledge gained from it.

Finally the meeting discussed the fact that although the Chief Inspector of Explosives had denied the New Zealand Industry the right to manufacture heavy duty plastic motor spirit cans, the same items were being sold as jerry cans for boats in Auckland, stamped "made in Germany". A strong message was to be given to the Inspector.

Len Belz was elected President and Bob Poffley Vice President, Supply House representative was Murray Valentine.

1977 was the year when the inevitable became a reality. New Zealand cheese exports to the UK ceased, and other dairy products were given a three year reprieve on a much reduced basis. Alternative markets had been found in Japan and Pacific Asian countries but they were, to say the least, inadequate and uncertain. Consumer prices in New Zealand had risen 64% in the last three years, and temporary employment schemes (TEP) had been devised to cater for growing unemployment.

In the midst of this it was announced that former long term Prime Minister Keith (now Sir Keith) Holyoake had been appointed the next Governor General.

However it was not all doom and gloom. The All Blacks beat the Lions 3-1 in New Zealand, and the film "Star Wars" added a new dimension to the country's entertainment.

On March 27th at Tenerife, in the Canary Islands, an on-ground taxiing collision of two jumbo jets killed 574 people out of the 640 passengers on the KLM and Pan Am flights. This was and is still the world's worst aircraft accident. It is interesting to note that at the time of this terrible fiery collision pioneer aviator Jean Batten was waiting at the airport for a flight to New Zealand to open a new Aviation Pavilion at MOTAT, and witnessed the catastrophe.

In Holland, PLO Arab terrorists hi-jacked a train and held 55 tourists hostage for 20 days.

Freddie Laker started a Trans-Atlantic shuttle service by air from London to New York and return with cheap airfares.

The Swedish pop group Abba made a world wide hit. Elvis Presley undisputed "King of Rock" died aged 42 of a drug overdose, Bing Crosby "King of Crooners" died on the golf course of a heart attack aged 76 and Charlie Chaplin, famous silent screen comedian, died on Christmas Day aged 88. Hit tune of 1977 was "Don't Cry for me Argentina".

The PINZ bi-annual meeting was held at Queenstown at which there was a change of Executive Officer from Trevor Bates to Alec Montgomery.

The Executive Officer's report covered such items as: Standards, inter-firm comparison studies, developing country preferences, NAFTA, tariff reviews, shortage of toolmaker's, and advice that PVC pipe makers had formed an association affiliated to PINZ.

Because there was a feeling that the Industry was tending to drift and that there was a definite need to define policies, a Forward Planning Committee consisting of David Hunter, John Mason, Rick Tapley and Alan Mayne was formed to explore and decide the Institute objectives and put them in to practice.

There was some discussion on a proposal to have the 1979 bi-annual conference in Rarotonga.

The 1977 AGM was held at the Overseas Terminal in Wellington.

The Executive Officer's report covered the subjects of Acrylic sheet, rods and tubes, as well as import licenses and the disappointing response to an inter-firm comparison questionnaire.

Mr Norm Laking addressed the meeting after which he was thanked for the work that he and his officers had done for the Institute and the plastics industry on the whole, and told that his presence would be sadly missed at future meetings.

On the publicity front the publishing and distribution of the "Communicator", a plastics industry booklet was applauded. Another publication, "Plastics - Partner in Today's Living", had been rewritten for distribution to schools.

Bob Poffley was elected President, Murray Calvert Vice President and Murray Valentine Supply House representative.

It was revealed that in future the Executive Committee would be expanded by a further three elected members and an extra Vice President, and the constitution changed accordingly.

1978 was a year of discontent in New Zealand. Allegedly through continued overseas borrowing and several devaluations of the NZ dollar, public debt had reached \$2.4 billion. Inflation was soaring in spite of desperate efforts by the Government to contain it, and New Zealand was said to be experiencing greater economic difficulties than at any other time since the depression. Figures of 25,000 unemployed with a further 31,000 on TEP job creation schemes, were a feature of the times.

For the first time this century a previous steady population rise became a decline as a new word was coined, "Braindrain", ie: highly skilled persons leaving New Zealand to seek better prospects elsewhere.

In an attempt to stimulate the economy personal income tax was lowered 5.1%.

During a winter of discontent amazing scenes of civil disobedience occurred hitherto foreign to the New Zealand lifestyle. On May 25th a paramilitary force of 600 police with bulldozers and army trucks ejected Maori land protesters from Bastion Point in Auckland where they had been squatting for two years, and on 8th June in Invercargill's main street 1000 sheep were slaughtered by farmers as a protest against rising costs on farms.

However 1978 held some joy for New Zealanders. In the United Kingdom summer Richard Hadlee, with a super hat trick of 6 wickets for 26 runs, gave New Zealand cricket the first win over England in 48 test matches, and Graham Mourie's All Black's beat England, Wales, Ireland and Scotland in a famous first.

Elsewhere in the world there were two interesting happenings, the first "test-tube baby" was born in England and in Guyana in South America, 913 members of a US based religious cult committed mass suicide after their leader Reverend Jones, had persuaded them to drink cyanide-laced soft drink.

In 1978 PINZ continued its successful progress fed by the continued swing from primary to secondary industrial export emphasis. The bi-annual conference was held in Rotorua with 78 delegates in attendance. The usual hardy annual subjects were aired and several addresses given by specially invited Government representatives and economists.

There were however two notable events to report:

The first winner of an award sponsored by Chemby Industries Ltd for environmental advances in the plastics industry was Consolidated Plastics Ltd with their product the "Netlon Tree Protector". The judges comment, widely copied in the press was *"by allowing planned close planting of poplar trees on pasture, the "Netlon" protectors are preventing millions of dollars of erosion damage. At the same time, from a purely economic viewpoint, there is maximum productivity from grasslands. With more than one million trees being currently protected in this way, New Zealand has a product with a great environmental contribution"*.

The meeting decided to implement a fairer method of membership subscriptions based on production, viz:

0	-	\$250,000	\$150
\$1m	-	\$1½m	\$490
\$2m	-	\$2½m	\$815
\$3m	-	\$3½m	\$1,140
\$4m	-	\$4½m	\$1,465
\$5m	-	\$5½m	\$1,790
Increasing to \$9m and over			\$3,000

The Corporate Associate Fees:

Miscellaneous	\$150
1 staff member	\$200
2-3 staff members	\$300
4 plus staff members	\$475

The 1978 AGM (the 34th) was held in Auckland on 1st November with a record 105 delegates attending. Wal Raine was honoured with Life Membership, being the eighth "pioneer" member to be awarded for services to the plastics industry.

Keynote speaker was the Hon George Gair. Amongst the several addresses on important matters concerning the industry at this time was the topic of "Industrial Relations - where are we at" by Mr Trott of the Federation of Labour.

Murray Calvert was elected President, John Mason Vice President and Steve Falvey supply house representative.

1979 was the year that shocked everyone by the announcement of a world wide energy crisis. It was calculated that by the turn of the century the world oil stocks would have run out. This shocked the world's population into frantic activity with increased oil prospecting, development of North Sea oil reserves and a search for alternative sources of energy for industry and automobiles. In the USA the vast national oil reserves had been severely depleted by unprecedented use during a long term Middle East oil embargo to the US.

Dictator despot of Uganda, Idi Amin was deposed after a several years reign of terror and cruelty. "Iron Lady" Margaret Thatcher became Prime Minister of Britain, and Lord Mountbatten, hero of the Burma campaign in World War II and the last British Viceroy of India, was killed by an IRA bomb.

In the USA "The Duke" John Wayne, doyen of cowboy and war films, died.

In New Zealand there was a noticeable lowering of living standards after many years of the country enjoying top ranking in the world.

A survey of GNP showed western world countries ratings to be Sweden 1st, USA 4th, Australia 8th and New Zealand 17th. There was a highly unstable industrial situation, with work stoppages at the highest rate for years and militant union activity. To add to this general air of despondency the Mt Erebus crash of an Air New Zealand DC10 Antarctic flight killing all 257 passengers and crew sent the country into mourning.

On the credit side Arthur Allan Thomas was pardoned after serving 8 years of a life sentence (much to the credit of Prime Minister Rob Muldoon) and New Zealanders were being entertained by John Cleese's paranoia in "Fawlty Towers" on TV.

In racing circles plucky woman jockey Linda Jones made history with her 44th win of the year on Holy Toledo in the Wellington Derby, as did Australia, with the Wallabies defeating the All Blacks for the first time in 45 years of rugby history.

For PINZ 1979 heralded some major changes in the plastics industry. The bi-annual conference was held at Waitangi with a record attendance of delegates and guest speakers and a hitherto unprecedented 18 proxies registered of members unable to be present. The interest of members demonstrated the confidence and reliance in the Institute, in the changing world wide and New Zealand situation.

Emphasis on the importance of the plastics industry to the economy of New Zealand was a major thrust in the Institutes publicity and PR programme and Murray Calvert and Bob Poffley were applauded for their assistance in this respect in talking to influential groups such as Rotary and Chambers of Commerce.

Economist Dr Don Brash gave an interesting address including tax structure, export incentives and import controls, as did Mr Bob Martin on the internal transport situation.

Mr Nishijima of Mitsui (NZ) Ltd gave an interesting address on the raw material supply situation.

An interesting resolution, topical of the times, was that the Institute supported the New Zealand energy policy of disassociating the cost of indigenous energy from imported energy so that the New Zealand manufacturer could take advantage of cheaper energy thus giving them an advantage in the export field.

The 35th AGM was held at the World Trade Centre in Wellington on 21st November.

Alex Montgomery had resigned from the position of Executive Officer and the newly appointed Bruce Dunlop was now named Executive Director.

Because of the lack of advertising support the "New Zealand Plastics Journal" had ceased production but a further edition of "The Communicator" was being produced and this served as a useful tool in informing decision makers at Government level of the plastics industry's point of view.

"Finance for the Industry" was the topical subject of an address by Mr D.J Steele, and the Hon Lance Adams-Schneider, Minister of Trade and Industry, addressed the industry on "Trans-Tasman Trade".

John Mason was elected President, Ian Ristrom Vice President and Brian Pickering supply house representative.

At the 1979 Annual Dinner the guest speaker was Prime Minister Rob Muldoon.

1980 found the world involved in an unprecedented oil shortage crisis. Such was the shortage in New Zealand that petrol station supplies were severely rationed and to eke out what little there was, no petrol was on sale at night time or during the weekends as a curb on pleasure motoring.

Sports-wise, both New Zealand cricketers and the All Blacks were sadly beaten in Australia. On the political scene there was a "Colonels" attempt to overthrow Prime Minister Muldoon by senior cabinet minister's Quigley, Gair and McLay, which failed after the wily Prime Minister appealed to the nation on TV for support from "Rob's Mob" which was now the "in word" for hardline National supporters.

Cigarette smoking causing lung cancer was the most publicised health scare of the year, and for TV "couch potatoes" super soap Dallas starring "JR the man you love to hate" was top of the polls.

Overseas it was amazing to see the formerly oil rich USA citizens queuing for miles to buy what little gasoline there was for private motoring.

The Middle East conflict between Iraq and Iran hotted up into full scale warfare and by destroying each other's oil wells and installations the worldwide oil shortage worsened. Into this shambles Ronald Reagan wrested the US Presidency from incumbent Jimmy Carter.

In 1980 the winds of change for PINZ began with the implementation of one national meeting per year, this year's held in Nelson, 25-28 April, under the new name of Annual Conference with the AGM held on the last day.

The format, which became the rule for future conferences was, opening and keynote speeches on the Saturday afternoon. On Sunday a keynote address followed by plastics industry sector groups discussions or seminars. On Monday morning workshop sessions and on Monday afternoon the AGM. Thus all delegates had time to chew over industry problems with each other before the AGM, which was devoted to reports from sub-committees, the branches and making decisions on remits, budget and election of officers.

At this particular conference the possible establishment of a New Zealand petro-chemicals industry manufacturing raw materials was a popular and exciting issue, and the Industrial Union of Employers forecast of large increases in Award Rates was a sobering subject.

John Mason was re-elected President, Ian Ristrom Vice President and Brian Pickering supply house representative.

The social activity of the Conference was very enjoyable and increasingly delegates were bringing wives and partners to enjoy a friendly atmosphere that was fast becoming a feature of PINZ.

1981 was notable for an unprecedented event in New Zealand sport. On February 2nd Australian cricket captain Greg Chappell's decision to have his younger brother Trevor bowl the last vital ball underarm in a one day cricket match with New Zealand at Melbourne caused a deafening roar of disapproval from a record 53,000 spectators at the MCG. That ungentlemanly act was to be remembered for years in trans tasman sporting relationships.

During the winter the Springboks Rugby team visited New Zealand. Worldwide opinion was against the South African system of apartheid racial discrimination and unfortunately the decision to host the Springboks in the face of the previous endorsement by the Government of the multi-nation Gleneagles Agreement, provoked levels of violence and disorder not seen in New Zealand for fifty years. From 19th July to 13th September when the Springboks completed their tour, masses of policemen in full riot gear followed the tour venues confronting demonstrators. There were thousands of arrests and a lot of use of the new long batons, and it was such a pity that sport had become involved in politics. Eventually the tour ended after only one game in Hamilton having been abandoned. It is not unexpected that under the circumstances the All Blacks won the series 2:1.

In the November elections National retained the Treasury Benches but by a much reduced majority.

Overseas there was plethora of assassination attempts. On March 30th Ronald Reagan was shot in Washington, and the Pope was shot in St Peter's Square in Rome on May 13th. The above two recovered, but President Anwar Sadat of Egypt was killed in Cairo on October 6th. In the UK attempts were made on the Royal Family, Prince Phillip having a time bomb parcel addressed to him, and the Queen had five blank shots fired at her whilst riding her horse at the Trooping of the Colours on June 29th.

Back at PINZ the highly successful new format of the Annual Conference was used at the 37th Conference and AGM at Rotorua excepting that the Sunday afternoon was spent in leisurely pursuits for delegates and partners as a prelude to the Annual Dinner held that evening. This was addressed by Dr Ian Shearer, Minister of Science and Technology.

Notable speakers' subjects were on Closer Economic Relations (CER) with Australia, which seems to have been a new image of NAFTA, Control of Working Capital and the Impact of the Silicon Chip in Micro Processor Control.

There was a choice of three workshop sessions on the Monday morning. The AGM in the afternoon provoked spirited discussion on CER, the withdrawal of the Bonus Licensing Scheme, the Standards Institute, a technical adviser for the plastics area and training courses on hydraulics, pneumatics and electronics in plastics processing and tool design.

The Industrial Union of Employers report covered a great deal of activity in 1981. An award agreement had been reached that gave a 13.9% increase in rates to tradesmen, 13.75% to other workers and 13.% to allowances. This was achieved after a lot of strife over pre-determined guidelines and new union leadership.

A new and more presentable logo was mooted for PINZ, and consultation with the Auckland Regional Council on plastics waste management was advised.

Increased budgeting for the forthcoming year totalled \$91,750 which illustrates the growth of the Institute.

Ian Ristrom was elected President, John Gibb Vice President and Colin Angus supply house representative.

In closing the meeting the President commented on the fine work done by Murray Calvert who was retiring after eight years on the Executive.

1982 The biggest international news this year was the Falklands War which began with an Argentine invasion of the British Dependency in April, and ended in June. The "Iron Lady" Margaret Thatcher PM, with absolute determination, organised a task force of Royal Navy ships and aircraft carriers and ten thousand Royal Marine commandos, transported in the converted QEII and Canberra passenger liners, to effect the recapture of the Falkland Islands. After this battle, the world had a great respect for the French built Exocet missiles that proved Royal Navy ships to be insufficiently armoured for modern warfare.

Trans Atlantic fare cutter, Laker Airways, collapsed leaving 6000 passengers stranded. This signalled the end of cheap shuttle airfares across the Atlantic.

In June New Zealand Prime Minister Robert Muldoon declared a 12 month wage and price freeze to combat 17.6% inflation, a budget deficit of two billion dollars, and a figure of 70,000 unemployed.

Kiri Te Kanawa was awarded the DBE as a leading soprano singer worldwide.

The PINZ 1982 Conference at Waitangi, 24-27 April was organised by the Wellington Branch of the Institute and the huge success of this event reflected the growth in stature and importance of the Branches of PINZ. This conference had another "famous first" for the ladies who, of their own volition, conducted a separate workshop session on Saturday afternoon. The records show that Mrs P. Gray conducted the proceedings on the subject of "Assertiveness Training"! It is not reported what far-reaching effect this may have had upon the husbands?

This conference followed the successful format of the previous one. It is interesting to note the list of quality VIP's who attend PINZ Conferences, which shows the high regard the Institute is held in Government circles. On this occasion there were 15 VIP's including: the Hon H.C Templeton, Minister of Trade and Industry, his Secretary Mr N. Broderick, Dr R. Gill of ICI Australia, Messrs B. Smith and G. Costelloe of New Zealand Product Number Association, Messrs K. Campbell and R. Manuel of the Customs Department, Mr M. Morrison of the Department of Trade and Industry, Brian Doring of Alex Harvey Industries, Mr P. Hooton of Wilkinson and Wilberforce, Mr P. Carruthers of Asea Electric (NZ) Ltd, Mr Wayne Coffey of the NZ Manufacturers Federation, Mr Jurgen Koswig of "Ausplas", and Mrs P. Gray. This graphically illustrates the "fount of knowledge" available at PINZ Conferences.

Reports presented from PINZ sub-committees at the AGM were on the subjects of Environmental Control, Plastics Training, and Publicity. The Wellington, Christchurch and Auckland Branches presented their reports as did the Industrial Union of Employers.

An interesting item was an update of the equipment and facilities used at the Central Institute of Technical Training at Wellington, which was equipped with a Krauss 1oz injection machine, a 2 barrel Arburg injection machine, two vacuum forming machines, a compression moulding machine, an extruder with adaptation for producing small blow moulded articles, and a small blown film plant.

PINZ budget this year was \$106,485 and there was a 10% increase in membership fees.

John Gibb was elected President, John Lindsay Vice President and Colin Angus supply house representative.

1983 signalled the end of the worldwide oil crisis. It did not happen dramatically, and was mainly the result of massive oil exploration on a global basis. Huge deposits of oil in Alaska, the North Sea and in the Middle East were discovered and oil supply was given a new lease of life for at least another half century. Consequently OPEC lowered the price of oil having held non oil-bearing countries to ransom since 1979, and transporting of oil became a major engineering feat with super-tankers by sea and long distance oil lines overland. In Australia and New Zealand new oil and petrol gas fields were found and linked by very long pipelines to population centres.

In the US President Reagan announced the Strategic Defence Initiative, (soon to be dubbed "Star Wars") defence missile shield to protect North America.

In New Zealand the price and wage freeze continued for a scheduled 8 months extra from the proposed date of June 1983, under Government decree. "Think Big" was still the Muldoon/Birch plan to revitalise the country's industry and create employment. This year the Clyde Dam Power project began construction. The first case of AIDS was reported in New Zealand in 1983, and sportwise a Kiwi horse named "Kiwi" won the Melbourne Cup and the All Blacks thrashed the Lions in a test series in New Zealand 4:0.

In 1983 in spite of the price freeze the plastics industry was making great strides. Computerisation of machinery was greatly assisting plastic pipe and film production and the 39th Annual Conference held in Queenstown reflected the optimism and growth of the industry.

"New Generation Engineering Plastics" was the subject that created the most interest and discussion, along with developments in plastics technology. Technical company training and CTI training courses and publication material had severely drained funds accumulated for that purpose. The budget was adjusted to rectify overspending on this good work, so that it could continue unhampered.

A famous first this year suitably commemorated PINZ's maturity. On the eve of its fortieth anniversary, the Institute's Annual Awards Function was held in Parliament's Beehive Foyer, where a cocktail party attended by a large number of PINZ members, politicians and senior departmental heads, witnessed the plastic exhibits and the presentation of awards. The Beehive continued as the venue for many subsequent awards.

Because of the wage freeze there was little activity in the Employers Union in 1983 and 1984.

John Lindsay was elected President, Graeme Rothwell Vice President and Geoff Henderson, supply house representative.

Synopsis of the Fourth Decade of PINZ

So ended the fourth ten years of the Plastics Institute of New Zealand. Having survived an extremely turbulent decade, PINZ had grown in stature and dignity, and had proved a very useful negotiator between the plastics industry and Government. Great credit for this must go to the Executive and numerous sub-committee members of the Institute, as well as to the paid officers of PINZ.

During the fourth decade of PINZ some remarkable changes in the New Zealand lifestyle had taken place, many of which affected the industry as well as the personnel involved. Although for the last nine years of this decade there had been a stable National Government in power, political historians recorded some concern over election

promises that safeguarded a return of the government of the day, but were more often not good for the majority of citizens, some of which were:

- The dumping of the previous governments actuary system of personal superannuation in favour of a taxpayer funded superannuation for all people that began at age 60 (instead of the previous 65) which was paid regardless of whether the beneficiary was still employed or earning an income privately. This soon became unsustainable.
- A "Think Big" policy of large industrial projects aimed at providing employment, as well as facilities allowing future generations to become more independent of oil imports, but which became a burden upon taxpayers with inflation tremendously exceeding costings and requiring huge overseas borrowing.
- The price and wage freeze that in twenty months of its duration certainly lowered inflation but caused other hardships, the worst of which was to be a massive rise in cost of living after its cessation.

Added to these internal problems were; the worldwide scare on oil shortages and an enormous escalation of prices for petroleum and by-product prices (the latter of which seriously affected the landed cost of plastics raw materials), and the effect of the UK joining the EEC which decimated New Zealand's traditional primary export markets, depressing the income of farmers and the value of land.

However New Zealand's ingenuity and resilience saw a rapid change to marketing innovations like kiwifruit and venison and deer by-product developments, and the finding of new markets for milk powder and timber products, etc. To this must be added the rise in export of plastic products to Asian/Pacific countries.

Tourism became a major source of foreign currency income, which saw the establishment of new hotel and motel developments (at this time considered a sound investment).

After the terrible scenes of civil disturbance accompanying the Springbok rugby tour, New Zealanders became disgruntled and despondent and strikes were prevalent. This culminated in an amazing citizen's protest sparked by a young woman, Tania Harris, who organised through radio talk-back a "Kiwi Cares" rally down Queen Street, Auckland. Although low key, approximately 100,000 well behaved protesters marched with laughter, smiles and urges of more Kiwi pride.

At PINZ there was a notable reform in conference procedure. The Institutes' national annual conferences continued to be not only enjoyable social events, but with workshops, seminars and member participation, combined with well qualified keynote speakers, excellent vehicles for intra-industry communication.

The Wonderful World of Plastics

1974-83

Centre Page

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1984 - 1993 : "THE FIFTH DECADE"

1984 was a relatively quiet year in relation to global conflicts, however the Cold War between East and West continued unabated with Soviet Russian athletes banned from attending the 23rd World Olympics in Los Angeles.

Elsewhere there was unrest in the United Kingdom with strikes and riots, racial tension and massacres occurred in India, and Gaddafi was continuing to be difficult in Libya. Marcos was under pressure as dictator of the Philippines, and there was continuing strife in Africa, with apartheid in the south, a coup in Nigeria, and famine in Ethiopia.

This year the world lost several well loved actors including Richard Burton at 58 years of age, James Mason 75, and Count Basie, King of Jazz, 79.

In Australia Bob Hawke and the ALP were re-elected.

In New Zealand the political scene was the predominant topic of conversation. In January the unemployed count reached an unprecedented 84,000, and when Prime Minister Rob Muldoon called a snap election on July 14th the fourth Labour Government swept into power with a 19 seat majority under the leadership of David Lange (to date the youngest MP of the 20th Century). This ended a stint of 17 years in the political limelight for Robert Muldoon as Minister of Finance and Prime Minister.

Robert Jones, financier and developer, caused some consternation when he formed a third political party, the NZ Party, to contest this election. However, although the new party gained a significant percentage of the vote, it failed to gain a seat in Parliament.

Within two weeks of this election the outgoing Prime Minister was forced by the incoming Government to devalue the New Zealand dollar by 20%, in an attempt to rectify a very awkward situation on world money markets.

History can be cyclical. In 1947 the Fraser/Nash Government had revalued the NZ currency 25% upwards, and many persons with overseas investments lost heavily. This time a devaluation had a similar disastrous effect on the business world, but this time among those who had borrowed heavily from overseas and had to repay on a 20% devalued NZ dollar market.

Politics aside, 1984 saw the All Blacks beat the Wallabies 2:1 in the rugby test series played in Australia, and in New Zealand large crowds were delighted with the ice skating prowess of Torville and Dean.

PINZ, now in its 40th year, was about to cope with changing situations. Voluntary unionism introduced that year promised to ease the workload of the Employer's Industrial Union, the age of computerisation had begun to revolutionise accountancy, engineering and manufacturing processing, and devaluation and a floating New Zealand dollar helped exporting.

By now each Annual Conference carried its own unique theme, and the very apt (for the day) theme of the 1984 conference held in Rotorua 28-30th April was "HOW TO THRIVE, NOT JUST SURVIVE IN A CHANGING ECONOMY".

Special guests included David Walker, Director General of the NZ Manufacturers Federation. The opening address was given by the Hon. K.R Allen, Minister of Customs, and Dr Don Turkington addressed the delegates on the theme of the Conference.

An IBM workshop conducted by Mr Noel Cheer of IBM, with the title of "Personal Computers - A Self Defence Course", was very popular with delegates, as was a session later in the conference on the subject of computers and their effect on lifestyles.

Sector group meetings were held on CER, the Industrial Law Reform Act, and the Plastics Industry Development Plan.

The Publicity Committee produced samples of careers leaflets, and a new brochure "An Insight into the New Zealand Plastics Industry".

A good deal of time was spent on the subject of technical education and apprenticeships in the industry.

Graeme Rothwell was elected President, David Oakley Vice President and Geoff Henderson supply house representative.

1985 showed the first indications of a slackening in the Cold War in Europe with the elevation of Mikhail Gorbachev to Soviet leadership. Beirut became the centre of Middle East tension with a "holy war" between religious factions.

In New Zealand the "Ban Nuclear Ships" policy firmed up, and the United States excluded NZ defence forces from exercises. New Zealand exports to Britain had dropped 10% over the last 25 years. On the political battlefield, the Lange Government replaced compulsory unionism, Jim McLay took over as Leader of the Opposition and there was a bitter row with France over the sinking of the Greenpeace protest vessel "Rainbow Warrior" in Auckland Harbour. Sportswise, John Walker was the first person to run 100 sub four minute miles and the New Zealand cricketers won their first test series ever over the Australians.

A new invention in the world of quality music was the metal compact disc and CD players, and microwave ovens began revolutionise cooking.

The 1985 Annual Conference theme was "STRESS MANAGEMENT" and in keeping with the subject the Master of Ceremonies for the ladies conference programme introduced Aerobics and Health and Fitness sessions.

Sector Groups included discussion this year on ABS compound, CER, rules of origin and other Institute matters.

Stress Management workshops covered such subjects as exercise and health and fitness and workload manipulation.

Executive Director Bruce Dunlop presented a comprehensive report on the six rounds of Import Licensing tendering proposed under the Plastics Industry Development Plan first mooted in 1982.

At the AGM the financial year of the Institute was amended to end on the 31st December. It was mentioned that John Sadler of Transpak Industries had been selected as a guest speaker to an international conference in Holland on Film Technology and he was congratulated accordingly.

David Oakley, having being transferred to a non-plastics section of his company, was not available for election as President, and he and Mrs Oakley were thanked for their 25 years support of the Institute.

Graeme Rothwell was re-elected President, Ron Watson Vice President and Geoff Henderson supply house representative.

1986 Although this was the year that Halley's Comet made its 75 year visit, most New Zealanders remembered 1986 by the introduction of the Goods and Services Tax (GST) which was aimed at levelling out taxation. Initially it was 10% but later increased to 12½%.

In February 700 passengers and crew were rescued from the Russian Cruise Ship Mikhail Lermontov after the ship struck rocks near the entrance of the Marlborough Sounds.

On February 23rd two Maori activists were arrested in Auckland for throwing eggs at the Queen.

In sports, New Zealand beat Australia 2:1 in cricket tests played in New Zealand, but during the winter the Wallabies beat the All Blacks 2:1 in the New Zealand test rugby series.

AIDS became more prevalent in New Zealand.

On 28 January the space shuttle "Challenger" exploded 62 seconds after blast-off from Cape Kennedy, killing 7 astronauts including the first "Citizen in Space Programme" person Mrs Christa McAuliffe.

US made an air strike on Tripoli (Libya) in reprisal for acts of terrorism.

In the Ukraine a fire at the Chernobyl nuclear power station spread a radio-active cloud over parts of the then Soviet Union, Sweden, Norway and Scotland.

The Iran/Iraq war heated up and mustard gas was allegedly used by Iraqi soldiers.

Crocodile Dundee was a worldwide box office hit and great tourism boost for Australia. Cary Grant died in the US.

PINZ's 42nd Annual Conference was held in Queenstown 31st May to 2nd June, the theme being "WINNING THROUGH PLANNING".

Keynote addresses were given on the theme subject by President of the South Island Branch, Cam Moore, "Corporate Planning" by Phillip Rossell, David Caygill (Minister of Trade) spoke on "The Tariff Review" and as could be expected in this year an address on GST by the Dunedin Inland Revenue Department.

Conference discussions ensued on the tariff review, the Plastics Industry Training Foundation, exports and exchange rates, staffing and the labour market, and "PINZ and its contribution to your company".

The Sector Groups and Leaders were; Corporate Associates (Geoff Henderson), Pipes & Fittings (John Richardson), Flexible Packaging (Cam Moore), Injection Moulding (Steve Wilson), Rigid Packaging (Morris Watson), General (Colin McGowan).

Newly appointed Executive Director David Ludbrook replaced Bruce Dunlop who, after 7 years service to PINZ, had transferred to a senior appointment in the plastics industry.

The Training Committee reported that a Plastics Training Course had been established at Manukau Polytechnic in Auckland supported by three Auckland Branch PINZ members as plastics advisers.

Tony Hartevelt of Dunedin was elected President, Colin McGowan Vice President and Jim Mullen, supply house representative.

1987 can be remembered by most New Zealanders for the excitement of the America's Cup in Perth, when the semi-finals were won by "Stars and Stripes" sailed by Dennis Connor beating New Zealand skipper Chris Dickson, sailing the Kiwi yacht, 4:1 in the series.

On March 2nd New Zealand experienced a 6.5 Richter scale earthquake that created havoc in Edgecumbe, Kawarau and Whakatane.

The All Blacks won the first Rugby World Cup Series, beating France in the Grand Final.

In an August 15th snap election Lange's Labour Government was returned with its 1983 majority intact.

On the international scene there was a shift of power and uncertainty in Pacific Basin countries after a May 14th coup in Fiji led by the then Lt Colonel Sitiveni Rabuka. On October 26th Fiji was declared a republic.

On September 17th 70 nations signed an agreement aimed at doing something about the depletion of the ozone layer, and on December 8th Presidents Reagan and Gorbachev signed a nuclear disarmament treaty.

On "Black Monday" (19th October) after 5 years of "Bull Market" trading and very high inflation of shares there was a worldwide share market crash which far exceeded that of 1929. It was a "financial melt-down", blamed by economists of the day on very high unsustainable interest rates, climbing inflation and budget deficits. Overnight the new generation of "Yuppies" went from riches to rags.

1987 PINZ's Annual Conference was held in Rotorua 11th to 13th June. In August 1986, President Tony Hartevelt had relinquished his post as President, and Colin McGowan of Auckland had stepped into the breach. Rob Mouncey had become Vice President and John Richardson had taken over Colin McGowan's place as Auckland Branch President. The theme of the 43rd Annual Conference was aptly named "CHALLENGES OF CHANGE".

Among the VIP invited guests were David Cargill, Minister of Trade and Industry and the new Leader of the Opposition, Jim Bolger.

Sector Group meetings included the following subjects and leaders:

Industrial Tariff Phase Down and Review of Impact
Training - the move to Manukau and Apprenticeships
Labour Relations Bill
Material Supply and Allocation
CER with Australia
The Role of the Institute

The Sector Groups and Leaders were; Corporate Associates (Laurie Cranfield), Pipes & Fittings (Ross McKinnon), Flexible Packaging (Cam Moore), Injection Moulding (Steve Wilson), Rigid Packaging (Morris Watson), General (Alan Bowmar).

The AGM discussed items in the Executive Directors Report, and the President's report revealed that the major emphasis of the year had been maximising publicity for design and export awards.

A new committee called PITPARC (Plastics Industry Training Promotion and Resources Committee) was formed.

This years budget was set at \$240,000 which included a travel award to John Fullard of the Manukau Polytechnic to visit "Ausplas 87" and plastics training facilities in Melbourne.

Colin McGowan was elected President, Rob Mouncey Vice President and Jim Mullen supply house representative.

1988 was not a good year for New Zealand business. "Rogernomics" in its second stage of economic reform broke down subsidies of primary producers. Farm income was almost halved and rural land values plummeted. Many farmers, unable to repay the borrowing done in better times, were forced off the land.

To add to this confusion, government departments were either sold off, or turned into State Owned Enterprises that had to make a profit. Consequently staffs were drastically cut, and SOE's began to sell their services in the open market.

There was however one good thing in 1988, another New Zealand horse "Empire Rose" pulled off the Melbourne Cup.

Internationally Iran and Iraq negotiated a truce, George Bush was elected President and the 23rd Olympics were held at Seoul in Korea.

1988 was a year of considerable change for PINZ's Executive personnel. The resignation of President Colin McGowan late in the previous year had seen Rob Mouncey step into that post. Cam Moore was elevated to Vice President. Steve Wilson had become South Island Branch President and his place on the Institute's Executive was taken by former Executive Director Bruce Dunlop.

The Director General of the Manufacturers Federation, David Walker, was replaced by Wally Gardner, and PINZ's new Executive Director was Mrs Nicky Steel, replacing David Ludbrook.

So therefore it was a new team by the time of the 44th Annual Conference held on Anzac Weekend at Waitangi. The theme for this conference was "INVEST IN A FUTURE", and in keynote addresses Richard Rudman referred to the investment of human resources, and Denford McDonald further developed the theme with a presentation on plant, equipment and technology.

MP Ross Meurant was guest speaker at the Annual Dinner, and on Sunday morning addresses on "Tax Considerations and Investments" by John Shewan and "Education and Technology" by Dr Mervyn Probine successfully completed the theme subjects.

Sector Group Meetings proceeded the AGM and covered the following subjects; trade related matters, import competition, industry statistics, raw materials, market conditions, training matters, industrial relations and packaging study.

As always at the general meeting following these group meetings, the recommendations of the group leaders were documented for consideration at future National Executive meetings.

A report from the PITPARC committee referring to the raising of \$76,000 was well received, and that committee, having successfully completed its task, was now disbanded.

The Employers Union announced that for the first time composite awards were contemplated giving each of the previous sectors of Plastics, Engineering and Engineering Contracting its own specific award, and this was seen as a distinct advance from the existing New Zealand Metal Trades Employees Award.

The total expenditure for 1988 was \$191,234.

Reference was made to Bill Conolly's departure from the industry and the contribution he had made in helping to achieve training objectives.

Rob Mouncey was elected President, Cam Moore Vice President and Moe Mailand supply house representative.

1989 began with the defeat of Communist regimes in Europe, firstly with a complete rejection in Polish elections in favour of Lech Walesa's Solidarity movement, followed by Hungary's demolition of their "Iron Curtain", a 244km barbed wire fence along the Austrian border.

On 10th November the world watched their television sets spellbound whilst Berliners hacked a breach through the 45km long Berlin Wall (built in 1961) which had separated East Berlin from West Berlin.

In China, up to 1 million students protested against their government, with supporters demonstrating for a change to democracy in Tiananmen Square in the capital Beijing. After a two week confrontation the troops were ordered to open fire, killing 2,600 and wounding a further 10,000 demonstrators, shocking the world.

After a 62 year reign, Emperor Hirohito died at the age of 82. It was during the period of this long reign that Japan emerged from complete defeat in World War II to become the economically strong and powerful business nation of today.

The above events graphically illustrate the turbulent times in which the now 45 year old "PINZ" had grown up. One wonders if the selectors of that years Annual Conference theme at Queenstown were not influenced by world events in their choice of "OUT OF THE ASHES TOWARDS 2000".

Keynote addresses by David Butcher, Minister of Commerce, Allan Pease, Peter Dunne, Peter Leeming, Roy Moss and Stephen Lewis reinforced the concept of "changing times".

Before the AGM formal presentations of "Buy New Zealand Made" given by Ernie Newman of the Manufacturers Federation, "The Environment" by Bryan Taylor, and "Publicity" by Tony Cronin, were made.

Since the last annual meeting Vice President Cam Moore had resigned and his place had been taken by Steve Wilson.

Murray Calvert was honoured with Life Membership. This was a famous first for PINZ in that the late Geoff Calvert, Murray's father had also been accorded that honour.

Steve Wilson was elected President, John Richardson Vice President and Moe Mailand supply house representative.

For the first time a new innovation, the sponsorship of social functions at conference by member companies was implemented, proving to be a tremendous success and greatly appreciated by the 230 odd delegates and guests.

1990 was a year of dramatic change in New Zealand. The popularity of the Labour Government had declined. The number of SOE's increased and the sale of major, previously taxpayer funded, businesses continued. New Zealand Steel, New Zealand Forests and Telecom were among the larger companies to go to overseas interests as were numerous tourist hotels. Interest rates were high and inflation was rising. Surviving government department's were under severe economic restraints and unemployment figures soared, with thousands redundancies and lay-offs occurring.

Internal strife within Labour's ranks, first saw the stand down of David Lange as Prime Minister in favour of Geoffrey Palmer and then, just prior to the November elections, Michael Moore became Prime Minister.

It was therefore not unexpected that Jim Bolger, re-inforced by election promises to the unemployed and superannuitants, would romp in to the Government benches.

In February 1990 the 14th Commonwealth Games were held in Auckland, presenting New Zealanders with 10 days of wonderful pageantry and sports.

The world watched the further decline of the Soviet Union throughout 1990, and relieved to note disarmament of nuclear weapons commence.

Worldwide concern on environmental matters centred on the increasing number of oil spills, particularly from wrecked super tankers polluting the oceans and shorelines, and continuing Ozone Layer depletion. In regard to the latter, 12 EEC countries agreed to a total ban of gases that affect the ozone layer by the year 2000.

In the US, Irving Berlin died aged 101 leaving behind him a legacy of some 900 tuneful songs, and American composer Walter Kent, who wrote the song "White Cliffs of Dover", saw them for the first time fifty years later.

The 1990 Annual Conference held in Rotorua had as its theme "WINNING WITH PLASTICS" with the programme being the responsibility of the Auckland Branch.

Formal discussion took place on a new enterprise to be formed within the Institute's framework, namely the Plastics Environmental and Advisory Council (PEAC). Dr David Warburton was appointed Manager and worked closely alongside the PINZ environmental sub-committee, chaired by Rob Mackie. This initiative confirmed that the New Zealand Plastics Institute was aware of its responsibilities to the environment and was not prepared to abrogate them. (See page 75 below for an overview of PEAC).

Keynote speakers and subjects at the 1990 Conference included: "The Impact of Plastics on the Environment", Deborah Neale; "The Australian Plastics Situation under CER", Bob Leschen; "Industrial Relations in the 1990's", Rex Jones; "Future Applications of Plastics in the Automotive Industry", Geoff Pritchard.

J.W (Bill) Foreman was accorded the honour of Life Membership for his long service to the Institute.

At the AGM the Executive Director reported matters regarding her recent visit to Cairns for the Conference of International Plastics Association Directors (IPAD).

Other business of the AGM included yet another change in balance date which was now to be 30th June.

For greater equity in subscription payments the present number of 40 categories was reduced to 17.

Steve Wilson was elected President, John Richardson Vice President and Laurie Cranfield supply house representative.

For the ladies present Rae Brooker spoke on "Winning With Relationships" and Jocelyn Elliot "Winning With Money", both addresses in keeping with the conference theme.

1991 The new National Government now in its first year of office had interpreted its parliamentary majority as a clear mandate to press ahead with economic reforms designed to reduce the role of State in the lives of its citizens. In effect it was a continuation of "Rogernomics".

Faced with burgeoning deficit problems the new Government lost no time reducing Government spending and the slashing of budgets affected social welfare benefits and health services.

In May 1991 the Employment Contracts Act restructured labour relations by abolishing compulsory unionism and restricting the right of collective bargaining and industrial action.

Overseas the centre of interest was in the Middle East where a confrontation between Iraq and a United States lead UN coalition terminated in full scale warfare on 17th January and lasted until 4th April. "Desert Storm", as the conflict was aptly named, was reported blow-by-blow over worldwide TV. In the months after the cessation of hostilities the clean-up and extinguishing of blazing oil wells was prime time TV news.

In 1991 the 47th Annual Conference was held in New Plymouth 24th to 27th April and hosted by the Wellington Branch. President Steve Wilson had stood down and on November 1st John Richardson was appointed President and Ron Cave Vice President. The Conference theme was "THE COMPETITIVE EDGE".

The first guest speaker at this conference was a new generation hi-tech professional speaker whose subject was "Motivation", after which the delegates were expected to be hyped-up for the conference proper. Other keynote speakers were Dr David Warburton of PEAC on "The Environment", Stephen Bridges on "Marketing", Malcolm Dennis on "Total Service Initiative", and Ken Jewsbury of Dow Chemicals Co. on "Polystyrene and Polyethylene, a Global Overview".

A good deal of AGM and Conference time was spent on matters affecting the recently formed PEAC. The budget this year was broken into three groups, PINZ \$180,000, PEAC \$150,000, (raised by a levy on a per tonne of resin purchased), and Technical Training \$31,820.

There was also significant discussion on the forthcoming Plastics Industry Awards which were intended to closely follow the previously agreed format of the Composite Packaging Award.

John Richardson was elected President, Ron Cave Vice President and Laurie Cranfield supply house representative.

As per previous conferences the ladies were entertained by Ida Gaskin (a former "Master Mind" winner) speaking on the subject of "Women as Equals" and Anne-Marie Renaud on "Assertiveness and Self Esteem".

1992 was a great year for New Zealand cricket. Richard Hadlee and a number of top class batsmen had retired the year before and several newcomers were drafted into the country's first eleven. The "Young Guns" as they were called fascinated the country in the contest for the one day cricket World Cup Series by beating Australia, Sri Lanka, South Africa, Zimbabwe, West Indies and England into the semi-final game against the Pakistani team, who eventually became the winners.

On the political scene there was a continuation of privatisation of SOE's and self funding of government departments. Worst hit were Education and Health, both of which were placed on a partial "user pays" basis. The deep disenchantment with both major political parties saw the formation of two very active anti Government bodies, Grey Power - mostly superannuitants who were riled by politician's electoral promises was one - and a new political party which was an alliance of some smaller groups such as the Democrats, New Labour and the Green Party and some rebel MP's, calling themselves "The Alliance Party" was the other.

PINZ's 1992 Conference was held in Christchurch. The theme was "BUILDING ON THE BASICS". By now PINZ conferences had become very popular and attracted a very large representation of delegates and their partners from all over New Zealand. The social occasions were excellent, and the business sessions most informative. The idea of each Branch in turn sponsoring and organising the annual event was a great success with keen competition amongst Branch Members to stage the "best yet" conference. Likewise there were few problems in attracting very good speakers to these high profile events.

As an illustration of quality, at the 48th Conference speakers included; Mrs Vicki Buck, Mayor of Christchurch, who gave the opening address, Sir Robertson Stewart, Terry Frenchman of Dow Australia, "Plastics Environmental Development in Australia", Mark Hanlon, "Industry Training Bill", Peter Townsend, "Exporting - The Trials and Tribulations", and the Keynote Speaker John Lees, "Succeeding on Purpose".

President John Richardson advised that with the passage of the Employment Contracts Act and the dismantling of the system of industrial awards, there was no longer a place for the Plastics Industry Industrial Union of Employers. The meeting therefore resolved that the PINZ Union of Employers be voluntarily dissolved.

As at the previous conference, environmental matters took up considerable Conference time. PEAC was doing a fine job and the Industry was sticking to its resolve to do everything possible towards improving the knowledge about, and handling of, plastics in the waste stream.

A Plastics Industry Collective Contract had been established and it was noted that during the year the Executive had been busy maintaining contacts with Government officers including Cabinet members, Phillip Burdon, Simon Upton, Rob Storey, Bill Birch and Roger Maxwell as well as the opposition spokesman for the Environment, Peter Dunne.

By this time the AGM, that in previous decades could take most of a full day, had been streamlined to a mere two hours, consisting of a President's Report, Executive Director's Report, the three Branch Reports, PEAC Report, Training and Publicity Report, Financial Report and Election of Officers.

This year John Tucker was elected President, Cam Moore Vice President, John Griffiths supply house representative, and the elected Executive consisted of Ron Cave, Alan McSkimming, Malcolm Smith and Bruce Webster, Mark Hanlon (Technical Training), John Richardson (Immediate Past President), and the three Branch Presidents.

1993 saw (for most practical purposes) disintegration of the Soviet Union. The two architects of Glasnost had fallen out and there was nearly nation wide civil war when rebel MP's locked themselves in the Russian Parliament in Moscow. The army stood by the elected leader Boris Yelstin and stormed the "White House", arresting the rebel MP's.

In New Zealand, although the Government's hardline policies were somewhat softened prior to the general election, the sale of New Zealand Railways to a USA railroad company was not a popular action. However interest rates and inflation had come down to remarkably low figures. Unemployment was still a major issue and although the independent pollsters predicted a large win for the Government the election night results ended with a hung parliament with National 49 seats against Labour's 46 seats and 4 seats going to the Alliance and a new political party, New Zealand First, with two seats each. Subsequent counting of absentee votes gave National a margin of one more seat, enough for Prime Minister Jim Bolger to form a Cabinet.

A referendum on future New Zealand elections gave a substantial victory to the supporters of Mixed Member Proportional voting, against the current style of First Past the Post.

The 1993 Annual Conference was held at Rotorua on the weekend of 23rd to 25th April, "MOULDING NEW ZEALANDS FUTURE" was the theme of this 49th Conference and AGM.

As usual there was a large line-up of high quality keynote speakers including; Roger Maxwell (Associated Minister of Industry) with "Training in Industry", Geoff Dale (MD of General Electrical Plastics Australia) on "Global Competitiveness", Susan Ryan (CEO of PIA) "The Australian Perspective", David Warburton "Packaging in the Solid Waste Stream", Trevor Pauling (Bluebird Foods) "The Buyers Perspective", Stephen Tindall "Encouraging Local Industry" and Michael Hill (Jeweller) "Pride in our Country".

During the past year the Institute's office had been moved from Wellington to Auckland, and Bruce Meldrum had taken over from Mrs Nicky Steel as Chief Executive Officer.

The Conference was advised of the progress in establishing the Plastics Industry Training Organisation, and the President paid tribute to the work of Nicky Steel, Rob Mackie and Mark Hanlon for their work and dedication to PINZ whilst in office.

In a public media release the President advised that the Plastics Industry had committed itself to a major environmental and waste management initiative in proposing the establishment of a Plastics Foundation for Environmental Research.

The election of officers for the 50th year of PINZ was John Tucker President, Cam Moore Vice President and John Griffiths supply house representative.

Synopsis of the Fifth Decade

In its fifty years, PINZ from its modest birth in 1944, has grown to maturity. It has gained the respect of the New Zealand plastics industry, as well as that of manufacturing industry as a whole.

As this history brief indicates there have been hard times to negotiate throughout this first half century of the Institute's life. Great credit must go to the pioneers of PINZ who showed such foresight, and to the unstinted dedication of members who have worked so hard to effect the achievements to date.

Currently the plastics industry in New Zealand employs 7,200 staff, and PINZ has 145 Corporate Manufacturing Members, and 53 Corporate Associate Members, compared to the total of 10 foundation members fifty years ago.

Former PINZ Executive Directors

(See write-up on page 64)

* *Trevor Bates (1975-77) had not been contacted at the time of publication.*

List of PINZ Corporate Manufacturers as at 31 December 1993

Acma Industries	Upper Hutt	Labserv Products Ltd	Auckland
Alfred Holt & Co.	Auckland	Lanwood Industries Ltd	Palmerston North
Allflex New Zealand Ltd	Palmerston North	Leda Industries 1966 Ltd	Petone
Allplastics Ltd	Lower Hutt	Leda Industries 1966 Ltd	Upper Hutt
Alpha Plastics Ltd	Masterton	Lite Plastics Ltd	Auckland
ANZPAC Services (NZ) Ltd	Napier	Longbeck Insulation Ltd	Christchurch
Aotea Plastic Industries Ltd	Christchurch	M M Cables Ltd	Christchurch
Astron Plastics Ltd	Auckland	Mainguard Packaging Ltd	Christchurch
Astron Plastics Ltd	Christchurch	Marley New Zealand Ltd	Auckland
Automated Injection Moulding	Auckland	Marley New Zealand Ltd	Christchurch
Barnes Plastics	Auckland	Master Manufacturing Ltd	Auckland
Blow Moulders Ltd	Auckland	McCabe Industries Ltd	Upper Hutt
Borden (NZ) Ltd	Auckland	Minigrip Flexible Packaging Ltd	Auckland
Borden Filmpac	Auckland	Moldplas Enterprises Ltd	Auckland
Borden Filmpac	Christchurch	Monaghan Plastics & Engineering Co.	Auckland
Borden Flexipac	Christchurch	Napier Tool & Die Co. Ltd	Napier
Borden Liquipac	Auckland	NationalPak NZ Ltd	Auckland
Brooks Plastics Ltd	Auckland	Nexus Packaging Systems	Auckland
Buteline Industries Ltd	Auckland	Nexus Packaging Systems	Christchurch
C & R Packers Ltd	Auckland	Nuon Industries Ltd	Auckland
Caford Castors Ltd	Auckland	O'Brien Plastics Ltd	Auckland
Calvert Plastics Ltd	Hutt Valley	Optoplast (NZ) Ltd	Wellington
Cebel Flexpac Ltd	Auckland	Pacific Plastics Ltd	Christchurch
Chemby Vinyl Ltd	Auckland	PDL Industries Ltd	Christchurch
Chequer Corporation	Auckland	PDL Packaging Ltd	Auckland
Chequer Packaging (SI) Ltd	Christchurch	PDL Plastics Ltd	Christchurch
Chequer Systems Ltd	Auckland	PEL Industries Ltd	Auckland
CHH Limited	Auckland	Plasfab Installations Ltd	Auckland
CHH Plastic Product - Bev. Div.	Auckland	Plastic Bins & Buoys Ltd	Thames
CHH Plastic Products	Auckland	Plastic Industries NZ Ltd	Auckland
CHH Plastic Products	Lower Hutt	Plix Packaging Ltd	Hastings
CHH Plastic Products Ltd	Hamilton	Plix Packaging Ltd	Auckland
Ciba NZ Ltd	Auckland	Plus Pac Industries Ltd	Auckland
Conform NZ Ltd	Auckland	Polarcup (NZ) Ltd	Auckland
Continental Plastics Ltd	Auckland	Precision Valve New Zealand	Auckland
Courtenay J R Ltd	Auckland	Premier Plastics Ltd	Auckland
Croxley Collins Olympic	Dunedin	Progressive Plastics	Dunedin
Danaflex Packaging Group Ltd	Tawa	Proline Plastics	Auckland
Danband	Auckland	Propak	Auckland
DRG Packaging Ltd	Auckland	Propak	Hamilton
Dunlop Flexible Foams Ltd	Auckland	Raven Products Ltd	Auckland
Dunlop Industrial	Christchurch	Reese Plastics	Auckland
Dux Engineers Ltd	Lower Hutt	Reese Plastics	Wellington
Dynathene Plastics (1992) Ltd	Wellington	Reese Plastics Ltd	Christchurch
Dynex Extrusions Ltd	Auckland	Rheem NZ Ltd	Tawa
Elastomer Products Ltd	Auckland	Rheem-Pak	Auckland
Elastomer Products Ltd	Christchurch	Ristrom Packaging Ltd	Christchurch
Elmark Industries Ltd	Auckland	RX Plastics Ltd	Ashburton
Endeavour Plastics Ltd	Christchurch	SDP Plastics	Petone
Englefield Industries Ltd	Auckland	Simaplas Products Ltd	Auckland
Expol Packaging Ltd	Auckland	Solo Plastics Ltd	Auckland
Ferro Plastics (NZ) Ltd	Auckland	Southern Fresh Milk Company	Invercargill
Flexo Print & Packaging	Auckland	Southern Packaging Ltd	Christchurch
Flight Plastics Ltd	Auckland	Spotless Plastics NZ Ltd	Auckland
Flight Plastics Ltd	Wellington	Styrobeck Products	Auckland
Formrite Plastics Ltd	Christchurch	Talbot Plastics Ltd	Christchurch
Gale Plastics Ltd	Auckland	Technical Plastics Ltd	Wellington
Gallagher Group Ltd	Hamilton	Tecpak Plastics Ltd	Dunedin
Glenroy Insulated Products Ltd	Blenheim	The Hanger Company	Auckland
Hansen Products NZ Ltd	Whangarei	Thermoplastic Engineering Ltd	Wellington
Hardie Bondor (NZ) Ltd	Auckland	Transpak Industries Ltd	Auckland
Hardie Bondor (NZ) Ltd	Christchurch	Trigon Industries Ltd	Auckland
Hardie Iplex	Palmerston North	Trigon Packaging Systems (NZ) Ltd	Hamilton
Hardie Iplex	Christchurch	Tru-Test Plastics Ltd	Auckland
Hope Moulded Polystyrene	Nelson	Tubepack Ltd	Auckland
Industrial Mouldings Ltd	Petone	Ultron Products NZ Ltd	Christchurch
InterAg	Hamilton	Uniflex Packaging Co. Ltd	Christchurch
Jakaar Industries (1993) Ltd	Auckland	Van Leer NZ Ltd	Auckland
John Cropper Ltd	Auckland	Vista Pak Ltd	Auckland
Kambrook Manufacturing NZ Ltd	Auckland	Vita Sytrene	Christchurch
Koolfoam Industries Ltd	Auckland	W.R Grace (NZ) Ltd	Porirua
Koves Plastic Industries Ltd	Auckland	Wrightcel Packaging NZ Ltd	Feilding

CORPORATE ASSOCIATE MEMBERS

One of the best decisions the founding members of the Institute made was the incorporation of Associate Members. Although suppliers of raw materials dominate the current fifty-two associate members, there are also machinery suppliers, analysis consultants, die casters, toolmakers and engineering firms in the total number.

At the Inaugural meeting on 7 June 1944 only one supply firm was represented. Mr Norman Lawn of Scott and Holladay (NZ) Ltd had received an invitation from his great friend Harry Urlwin to attend the meeting. By the end of the first decade there were several other raw material suppliers including ICI (Imperial Chemical Industries), who had donated a trophy for plastic design competitions. By this time a basic annual membership fee of three guineas per associate member firm had been agreed upon.

In 1955 Beetle Elliot (NZ) Ltd offered a trophy for a golf tournament to be associated with PINZ's AGM.

At the end of the 1950's import licensing was introduced and instead of supply houses carrying worthwhile stocks of raw materials to service the industry, indent orders replaced stock ordering and established an importing history of supply houses and their clients. These changes attracted some manufacturers to seek their own independent licenses. However a raw material shortage forced the combined efforts of suppliers and manufacturers into joining a deputation to Government to press for greater allocations of raw material license quantities.

In 1961 the supply houses and manufacturers were working in harmony and have done so ever since. At this time ICI donated seven trophies per annum, as plastic design competition awards. They took the form of original New Zealand artist's paintings to the value of £25.00 each.

The close co-operation between manufacturers and supply houses led to a re-assessment of Associate Membership and a consequent rule change to implement the new status of membership that allowed a supply house representative on the National Executive, as well as allowing for a higher status as a group within the industry.

Technical education having become important to the growth of the plastics industry, the new accord with supply houses prompted Swift and Co. and Union Carbide Co. to donate on-going awards to students. In 1977 Chemby Industries Ltd announced that they were making a donation of \$1,000 annually for an environmental award.

The contribution of supply houses towards technical education has been very significant over the years.

In 1985 Hoechst (NZ) Ltd sponsored an apprentice award for 3rd or 4th year students to travel to Australia to visit Hoechst plants, and Allied Chemicals presented a technical training award.

In 1990 when environmental issues became paramount, PEAC (The Plastics Environmental and Advisory Council) was formed by PINZ. The supply houses Associate Members contributed \$40,000 towards the cost of PEAC and Oxchem (Occidental Chemical Corporation) donated \$25,000 towards the cause. The same year the supply houses donated an electronic balance to the Plastics Training Centre.

In 1992 the Corporate Associates contribution to PEAC was maintained plus an additional \$22,000 towards the funding of a plastics waste management strategy. Oxchem contributed a further \$25,000 towards PEAC. In 1993 the same levels of PEAC contributions continued.

In its 50 years history there have been three National Presidents from the supply houses group. Cliff Dowling of ICI in 1956, Merv Cox in 1964, and Wal Raine in 1971. In each of the three branches, supply house representatives have served as Branch Presidents.

Over the years PINZ has enjoyed the active participation of the Corporate Associate membership. They have served on nearly every National Committee and special sub-committees. There have been 31 elected supply house representatives on the National Executive.

One can fairly say, without this unstinting and constantly active support the past 50 years would have been a harder road for the Institute to negotiate.

('Miltak' - a four year old filly owned by a syndicate which includes Maurice McKinley won the DB Auckland Cup at Ellerslie on 1 January 1994. Maurice probably feels that a good racehorse is like a good plastics machinery agency - but a lot more fun).

List of PINZ Corporate Associates as at 31 December 1993

American Chemicals Ltd	Auckland	Hoechst NZ Ltd	Christchurch
Antross International Ltd	Auckland	Hunt Agencies Ltd	Auckland
Ashland Plastics NZ Ltd	Auckland	Hunt Agencies Ltd	Lower Hutt
BASF (NZ) Ltd	Christchurch	Huntsman Chemical Co. Ltd	Auckland
BASF NZ Ltd	Auckland	ICI New Zealand Ltd	Auckland
Bayer NZ Ltd	Auckland	ICI New Zealand Ltd	Christchurch
Bliss and Reels (NZ) Ltd	Auckland	ICI NZ Ltd	Lower Hutt
BP Chemicals ANZ Ltd	Auckland	Inmac Industries Ltd	Auckland
Bribros Cressey Ltd	Auckland	Intermex Trading Corp Ltd	Auckland
Bronson & Jacobs (NZ) Ltd	Auckland	Machinery Agencies Ltd	Auckland
Chemiplas Agencies Ltd	Christchurch	Marley New Zealand Ltd	Paraparaumu
Chemiplas NZ Ltd	Auckland	Monsanto New Zealand	Johnsonville
Chemiplas NZ Ltd	Lower Hutt	Plastic Sales & Distribution (NZ) Ltd	Auckland
Continental Engineering Ltd	Auckland	Plastral Trading (NZ) Ltd	Auckland
Dow Chemicals (NZ) Ltd	Auckland	Polychem Marketing Ltd	Auckland
Du Pont NZ Ltd	Auckland	Polychem Marketing Ltd	Wellington
Elf Atochem (Australia) Pty Ltd	Auckland	Polymer Marketing	Auckland
Encor (NZ) Ltd	Auckland	Polymers International Ltd	Auckland
Exxon Chemicals NZ Ltd	Auckland	Polymers International Ltd	Christchurch
Ferrocast Machine Tools Ltd	Auckland	Robert Bryce & Co. Ltd	Auckland
Fidene Consolidated NZ Ltd	Auckland	Robert Bryce & Co. Ltd	Lower Hutt
Field International Ltd	Auckland	Robert Bryce & Co. Ltd	Christchurch
Hanlon Consultants	Cambridge	Shell Chemicals NZ Ltd	Auckland
Harcros Chemical Group	Auckland	Swift NZ Ltd	Auckland
Henkel New Zealand Ltd	Auckland	Tasman Machinery & Services Ltd	Auckland
Hoechst NZ Ltd	Auckland	Techspan NZ Ltd	Auckland

THE FUTURE ?

It would be a brave person who would predict the next fifty years to 2044. However here is a selection of opinions from a cross-section of 1994 Plasticists.

President John Tucker says:

Plastics has become an integral part of our social and economic life today, and this will be more pronounced by the year 2044. While the last fifty years have shown dramatic change and advancement in the field of plastics, I believe that the next fifty years will see an increasing development of 'designer' resins and composites. The field of polymer engineering will offer the same scope for development into the next fifty years, that the war effort research and development afforded for our pioneers. If we think that the last fifty years has been exciting, then I have no doubt that the next fifty years will eclipse this, and the Plastics Industry will be as stimulating and rewarding for the future generation of "Plasticists".

Vice President Cam Moore says:

The Plastics Industry has through its own technological developments enhanced our standard of living and increased the competitiveness of the majority of our exporting industries, both in price and technology. The trend will continue, protecting many of our natural resources, including our energy resources and enabling exciting innovations in design. Our products will play a significant role in protecting our future and providing a basis of New Zealand's growing industrial exports. The opportunities for innovation are endless and only limited by our imagination. An exciting 50 years of opportunity is ahead of us.

Immediate Past President John Richardson says:

Our future world will place a higher importance on efficient uses of resources and energy and the protection of those which are scarce and becoming scarcer such as oils and forests. Plastics fulfil such a challenge. Plastics will remain for many the positive choice with their advantages of lightweight strength and their cost competitiveness against traditional materials. Continued growth can be expected in new and replacement applications as technology advances, with increasing importance attached to those materials that can be recycled.

Wellington Branch President Garrett Martens says:

Oh to have that magic crystal ball to see the developments ahead, or even next weeks Lotto numbers! Following the inception of plastics from its early years we have seen a multitude of uses developed to create and satisfy demands. The continued populating of the planet will bring even more solutions to be discovered. A UV filtering membrane for the earth's atmosphere? It is certain there will be the necessary and unnecessary, how we manage them will determine the enhancement and well being of our lives and environment. Absolutely Positively Onward to 2044.

Corporate Associate Chairman John Griffiths says:

In the last fifty years our industry has made incredible advances. Innovations we now take for granted - electricity in virtually every home, organ transplants, instantaneous communications worldwide, would not have developed to the same degree or such speed without plastics being there to fulfil the critical needs. In the next fifty years those needs are every bit as great - a need for products that are safer, smaller, more efficient, less expensive and environmentally friendly. The innovations of the past will pale into significance with what is to come, and without question our industry will be at the leading edge of technological growth.

Chief Executive Officer Bruce Meldrum says:

The value of durable lightweight materials in an energy-conscious world is a major plus for plastics. Nevertheless we need to continue to widely encourage the understanding of the important roles played by plastics right across the broad spectrum of our daily lives. The continuing development and prosperity of the industry will depend on this as it will also depend upon innovation and quality, and the training needed to accomplish it all. The importance of these elements in turn emphasises the point that it is the industry's people who will continue to be the single most important factor into the future. I am confident that in our next fifty years, our people will rise to the occasion.

THE BRANCHES

Although it was not until 1959 that the rules of the Institute were amended to provide for the formation of branches in the main centres, there had been some meetings in these centres and at least one highly successful meeting in Auckland in 1958 when 70 plasticists attended to hear an address by Mr Jack Holmes from the USA on "Polythene".

Prior to 1959, liaison within the Institute was achieved through resident executive members from Auckland, Wellington and Christchurch. Strong proponents of the formation of Branches were Messrs Lewis, Foreman, Quinn, Raine, Brown, Calvert, Fletcher and Hobin. On 14th May 1959, branches were officially formed in Wellington and Auckland and Jack Fisher and Phil Hall were elected as the first Branch Presidents respectively. A grant of £50.00 each was given these branches for establishment costs, and they were authorised to recruit members from among the plastics manufacturers and material supply houses in their areas.

By the end of 1959 the Auckland Branch had 27 ordinary members, 7 associate members and 102 affiliates, and Wellington 46 members in total. In Christchurch a South Island Branch had been formed with Bob Stewart as the first President.

At the 1960 AGM Branch Presidents Vince Hetherington, Alan Northover and Bob Stewart were elected to the National Executive and this happened from then on, on an annual basis for the particular Branch President of the time.

In 1962 it was reported that the South Island had 30 members and that their social programme had included a Branch Golf Tournament. The Branches continued to grow in membership and each Branch was fairly autonomous in its activities with technical evenings being a popular feature.

In April 1963 the bi-annual conference at Wairakei was organised by the Wellington Branch, the theme of which centred on technical training and allied matters.

By 1964 the Branches were submitting remits for consideration at the AGM and this was seen as a very healthy development of Branch activity. In fact the appointment of Mr Barry Burton as the Institute's first full-time Executive Officer in 1966 was initiated by a remit from the Auckland Branch.

In 1969 the Branches, through changes in the constitution, were allowed to incorporate an individual membership of persons in the Plastics Industry, a Limited Affiliate category. Affiliate membership was also restricted to the Branches only.

The Branches had now been in operation for 10 years and were proving to be of tremendous value to the Institute. In fact in 1973 the South Island Branch successfully sponsored a remit that the bi-annual conferences be replaced by an Annual Conference and AGM held in an appropriate resort area.

This same year, written Branch Reports became a feature at the AGM. It is interesting to note the Branch Membership structure at that time, ie:

	<u>Corporate Manufacturing</u>	<u>Associate</u>	<u>Affiliate</u>
Auckland	69	37	290
Wellington	52	22	2
South Island	32	13	120

In 1976 Auckland Branch Chairman, Bob Poffley advised that their Branch had instituted 16 weekly courses on injection moulding at Carrington Technical Institute.

In 1978 John Gibb was appointed as Waikato Area sub branch representative affiliated to the Auckland Branch.

Finally in 1980 the "one conference per year" change in direction was incorporated and after 20 years the Branch's input and effectiveness continued to be a great value to the Institute and National President Murray Calvert had included several visits to Branches of PINZ in his busy schedule.

In 1984 the Branches celebrated their 25th year with special silver birthday dinners.

In 1987 Auckland Branch President John Richardson reported that an Ausplas Tour organised by the Branch had been a huge success, and Wellington Branch President Neil Jarrett had reformed an affiliate section with emphasis on education in plastics. In the South Island, Branch President Steve Wilson advised that Sir Robertson Stewart had been appointed Patron of their group.

In 1990 Branch Membership was:

<u>Corporate Manufacturing</u>	<u>Associate</u>	<u>Affiliate</u>
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Auckland	82	44	212
Wellington	37	13	72
South Island	33	10	150

That same year the Auckland Branch held a 30th Anniversary Dinner attended by 285 persons.

As the Fifty Years of PINZ looms up, the Branches are all in very good heart, enjoying themselves with excellent social occasions, fishing, golf and what have you. PEAC involvement and industry training is still a major activity. Current Branch Presidents are: Auckland - Geoff Bickerton, Wellington - Garrett Martens, South Island - Stuart Leck.

AUCKLAND BRANCH MEMBERS ANNUAL GOLF TOURNAMENTS

CURRENT BRANCH PRESIDENTS

LIFE MEMBER HONOURS BOARD

Life Membership of PINZ is the supreme honour given for meritorious service to the industry and to the Plastics Institute in particular. The portraits include date of election to the honour.

PLASTICS INSTITUTE OF NEW ZEALAND STAFF

It is a well known adage that a business is only as good as its staff. This equally applies to business associations and institutes. PINZ has been well blessed in this respect.

In the formative years the Plastics Institute of New Zealand was administered under the umbrella of the New Zealand Manufacturers Federation. In fact even today fifty years after its inception PINZ remains a National Industry Group affiliated to the Federation, although it has its own offices and staff paid by the Institute's own funding.

IAN MACDONALD	attended both meetings during 1944 as Secretary. Was General Secretary of the New Zealand Manufacturers Federation until 1950 when he resigned to take up a position with the Board of Trade.
DAVID CLARKE	attended both meetings during 1944 as Minute Secretary, then 1944 to 1950 as Group Secretary and finally until 1951 as Executive Officer.
BILL SOMMERVILLE	from the Manufacturers Federation and appointed as Executive Officer in 1951 until 1955.
HARRY MARTIN	appointed in 1955, served for 7 years and subsequently became Director General of the New Zealand Manufacturers Federation.
BARRY BURTON	also from New Zealand Manufacturers Federation was appointed in 1962 and served for 13 years until he retired to go into the publishing business in 1975.
TREVOR BATES	appointed in 1975 left in 1977 to become Executive Officer of RMTA (The Retail Motor Trade Association).
ALEX MONTGOMERY	appointed in 1977 was formerly a Lt. Commander in the RNZN. Served 2 years as Executive Officer and moved on to be an executive of the NZ Institute of Management. Director.
BRUCE DUNLOP	appointed in 1979 was an executive of New Zealand Manufacturers Federation before joining PINZ, and served until 1986 when he went to UEB as Commercial Manager.
DAVID LUDBROOK	appointed in 1986 was also from the New Zealand Manufacturers Federation, left in 1988 to become an orchardist in Nelson.
MRS NICKY STEEL	formerly a member of Jim Bolger's research team was appointed Executive Director in 1988 and served until leaving the Institute to raise a family in 1992.
BRUCE MELDRUM	formerly a Major General in the NZ Army, and Chief of the General Staff, was appointed in December 1992 at which time the National office was shifted from Wellington to Manukau City, Auckland.

In recalling the service of the several Executive Officers of the Institute since 1944, the work done by the several Assistant Executive Officers and other members of the staff must also be acknowledged. The support of the New Zealand Manufacturers Federation at every level of seniority has been invaluable over the fifty years.

The importance of the work done by the three Regional Manufacturers Associations over many years must also be acknowledged. Assisting in the formation of the Branches were John Whatnall (Auckland), Ian Allen (Wellington) and Ian Howell (Christchurch).

Since 1959 the National Organisation, the Branches and, where applicable, the Affiliate members have been extremely well served by the Branch Executive Officers and staff at our Conferences, business meetings, technical evenings, social functions and everything else required for the successful running of the Institute.

Early in this history the text of a statement by Chairman Harry Urlwin in 1944 was shown.

A paragraph from Nicky Steel's (Executive Director 1988-1992) 1990 report is an assurance to Harry and other Pioneers that we have done our best not to let them down.

"The Institute is one of the most active trade associations (indeed probably the most active) in the New Zealand Manufacturers Federation. It is so because it is comprised of individuals who make things happen. I would like to thank all PINZ members for your assistance and support during the year. Your willingness and enthusiasm not only makes my job a lot easier, it also makes it a very enjoyable one".

* See page 85 for current staff

PINZ AWARDS AND EXHIBITIONS

From its very first days the Institute sponsored and encouraged the exhibition of plastic products to demonstrate the versatility, growth and ingenuity of the industry and a history of PINZ would not be complete without reference to the Institute's Design Awards. Over the years they have served the Plastics Industry as a wonderful public relations exercise as well as an excellent incentive to firms, staff and trainees to improve and develop plastic products.

The subject was first referred to in Foundation President Harry Urlwin's report to the first Annual General Meeting on 6th December 1944, when the President offered to donate £50.00 for the provision of suitable awards. The meeting heartily endorsed the idea and the Secretary Mr D. MacDonald was asked to obtain a copy of the American publication "Modern Plastics" with a view to adopting a similar scheme to the USA plastics industry.

In 1949 a sub-committee of Messrs J. Scobie, F. Davison and G. Calvert was set up to consider the Institute's sponsorship of a national moulding design competition. In 1952 the first moulding competition competing for an ICI Trophy was held in the four divisions of Industrial, Fancy Goods, Household Products and Sports Goods and Toys, the winning items being an electric iron handle, hand mirror, egg tray and set of lawn bowls respectively.

A further six competitions were held in the second decade, 1954-1963, by which time ICI had presented trophies for seven classifications of the awards to be made personally to the winners. They were in the form of a painting to the value of £25.00 each, and were to be awarded at special functions by a VIP of the time. Very often the judging and awards presentation were done in conjunction with a PINZ sponsored exhibition of plastic products. The resultant publicity provided good incentive for competitors and the backing of plastic product manufacturers.

In the third decade, 1964-1973, there were six competitions and the award categories had been increased to ten classifications, namely: Building, Domestic Consumer, Packaging, Agriculture, Industrial, Industrial Components, Plumbing, Surgical, Electrical and Flexible Packaging. By this time plastic manufacturing firms had become keen competitors in their firms names, and the award trophies were in the form of an attractive acrylic wall-plaque that was highly regarded in the industry.

In the fourth decade, 1974-1983, there are only five competitions reported although the awards were still called "annual awards". During this period there had been further re-classification of award subjects. In 1982 there were twelve classifications, ie: Moulded Products in Consumer Industrial and Agricultural Fields, Extruded Products, Blow Moulded Products, Rotational Moulded Products, Flexible Film Sheet Products, Rigid Sheet Products, Foam Products, Export Products, Young Designer's Award and an Achievement Award. The changes in keeping with the changing conditions and growth of the Plastics Industry.

In this same period there were a host of other annual awards presented at the Annual Dinners, some of which were, the Baekeland Award for outstanding technical or commercial contribution to the Plastics Institute, the Chemby Industries Environmental Award and the Union Steamship Plastic Export Award.

The most coveted honour in the Institute is the Baekeland Award for outstanding technical and/or commercial contribution to the Plastics Industry. Only three Baekeland Awards have been made since it was instituted in 1977. The three awardees photographs are on page 66.

For many years there had been Union Carbine and Swift awards for technical plastics training and apprenticeship awards. Some of these were travel awards.

During the fifth decade the Beehive, Parliament Building, was the regular venue for the PINZ Annual Awards Competition, often including a Prime Minister to present the awards at a social gathering that included many high Government officials with consequent media publicity.

Annual competitions and presentation of awards had become a very regular part of PINZ yearly programmes and Hoechst NZ Ltd and the Shipping Corporation of New Zealand had become sponsors of new awards.

At the 1992 Annual Dinner PINZ really established maturity as a leading manufacturers Institute in New Zealand when pioneer plasticist Sir Robertson Stewart presented the annual awards to firms and individuals including six entries for a new award classification of "Young Plastics Designers".

There is no doubt about it that Foundation President Harry Urlwin's foresight in 1944 in instituting annual plastic award competitions has served PINZ exceptionally well as has the frequent "wonderful world of plastic" exhibitions throughout the country so served the general plastics manufacturing industry.

The first PINZ National Plastics Show including the 1963 Plastics Design Competition attracted over 47,000 visitors to the Majestic Cabaret over the three day event.

PINZ Award Winners - 1976

Baekeland Award Winners

PINZ PIONEERS

Over the years the good fellowship of PINZ members had been exemplary. Undoubtedly, the excellent social occasions at the Institutes' bi-annual and annual conferences has greatly contributed to the feeling of belonging to an exclusive plasticist family, and has made fellows and their partners look forward to the next time of meeting.

When one retires this industry/institute relationship like many other things in life is sadly missed, whilst the memory of the good old days lingers on.

Three years ago Ian Fairgray, Graham Smout and Wal Raine called a meeting of retired plasticists in the Auckland area and formed an ad-hoc body named the "Plastics Pioneers", for which qualifications for membership were simply to be over fifty years of age and to have served 20 years in the plastics industry. Not all the members are retired.

Two or three times a year a notice goes out to the fifty odd members, and they have a luncheon and a trip down memory lane. Sometimes there is a guest speaker but more often than not it is just a reunion of old cobbbers and the main topic of conversation is "do you remember the time -----". A few beers, a nice luncheon and good fellowship makes for a pleasant occasion with exclusive company.

So far, because of the predominance of the plastics industry in the Auckland area, "Plastics Pioneers" have not extended too far south. However PINZ good fellowship knows no boundaries and some southern retired plasticists have enjoyed attending the luncheons. Maybe other centres will do likewise and form Plastics Pioneers groups of their own.

No-one yet has thought to record the Plastics Pioneer's discussions but the memories are long and often revert to the original founders of PINZ. Life Member Geoff Calvert was kind enough to put pen to paper of his reminiscences and it seems that this fiftieth anniversary of the Institute is a good time to record Geoff's trip down memory lane.

"This is not an accurate history, and in presenting these reminiscences of the plastics industry from the years immediately prior to the Second World War, I hope I have not overlooked anybody whose early contributions should have been recorded. I was early enough in the picture to know the original personalities, but it is easy to forget the events of nearly 30 years ago and should I have overlooked anybody, I offer my apologies.

To those who joined the industry after processes had been established, and the forces to be dealt with in making products of plastics had been recognised and controlled; there may be some who have given little thought to the pioneers, who, working mostly by trial and error, established the nucleus of the vast amount of knowledge available today. While a great deal was already known overseas, the isolation of the war years made pioneering here necessary and our early leaders contributed a remarkable amount of original thinking, sometimes following, and sometimes leading the ideas emanating from the other side of the world.

In my following remarks, I will try to present a picture of some of the people and happenings of those development days.

PERSONALITIES

I have an indelible picture of the very first personalty I met within hours of joining the industry in 1941, and strangely, he was not actually a plastics manufacturer. He was our Alan Dellow's likeable and respected father, Roy. Roy Dellow was in charge of the chemical section of the Ministry of Supply and I called on him in search of a better allocation of raw material. Roy's job was to distribute the inadequate supply of PF moulding powder where it would best assist the war effort, and none of us made his task any easier. Roy talked very knowledgeably about UF and PF powders and I tried to hide from him the fact that I had not even heard the names of these moulding powders which I sought. He was gracious enough to assume that I knew what I was looking for so my first encounter with the all-powerful Ministry of Supply officers passed off without loss of face. This meeting with Roy was the beginning of a close association and friendship, the memory of which I will always cherish. Another officer, Ralph Slade, the Radio Controller, was a well liked figure who helped smooth out the many difficulties associated with total control in the manufacture of essential radio and other industrial components.

The six first pioneers of our industry all established ahead of me were: Les Lewis, Auckland; Roy Faulconbridge, Auckland; Morton Foreman, Hamilton; Jack Quinn, Lower Hutt; Harry Herzog, Wellington and Harry Urlwin, Christchurch. Each of these leaders headed his respective company at the top of the ladder and formed the basis on which our flourishing industry has been founded.

Les Lewis' parent company, the National Brush Co. was the first producer of combs, toothbrushes and brushbacks, and was probably the first company to use a factory-built injection machine, a Reed Prentice, imported in the months just prior to the war. National Brush Co. secured substantial contracts to supply the armed forces as well as the bulk of the domestic market. But before this, Harry Herzog of Optoplast had designed and built an injection machine to manufacture countless millions of tiny cones that were inserted into

the noses of .303 bullets to provide the correct balance during their flight through the air. This machine was still operating a year or so ago and may still be running - but more of it later.

Roy Faulconbridge and his brother Ian, of Falcon Plastics (originally Buttons (NZ) Ltd), and later, Jack Quinn of General Plastics, were New Zealand's first manufacturers of buttons. Jack's company, headed by Ted Mandel, was originally known as British Buttons and Buckles, and these two companies made utility and fancy buttons by compression moulding, pressing of slugs and later by injection moulding.

Morton Foreman's advent into the industry was perhaps the most romantic. The Foreman family of Hamilton were garage proprietors and when times became difficult, Morton turned his fertile imagination in other directions and started to manufacture excellent dolls' heads from a mixture of fine wood flour and resin. The local demand was soon followed by a profitable export market to Australia and further afield, and beautifully finished dolls' heads and later whole dolls formed the foundation on which the vigorous and progressive Plastic Products was to grow. Who would have thought that a humble toy would grow into a huge industry handling highly technical products that in some cases have led in world design?

Harry Urlwin was, in his active days, the most colourful of the Pioneers. It was on his initiative that the first meeting was called to establish some sort of association of Plastics Manufacturers so Harry can rightly be called the father of the Plastics Institute of New Zealand. He was already established as the manufacturer of a popular range of electrical appliances, and a plastics division to make his own wiring accessories and lamp shades etc was the next logical step. Not everybody agreed with him or with his manufacturing policy but other manufacturers soon took advantage of the opportunities left by Harry to provide more robust mouldings and the quality kept on improving until a satisfactory standard was attained by all manufacturers. Harry was a truly self-made man and behind his colourful manner which caused many a sensational encounter with government officials and others, was to be found a kindly, generous side of his character that made many a lifelong friend and brought comfort and relief to many an employee in need. Harry, born within the sound of Bow Bells, was a true Cockney and a good friend to me.

EARLY ATTEMPTS TO PRODUCE RAW MATERIALS

A Dunedin Company, British Chemicals Ltd, headed by the late Mr J.C Somerville, produced casein rod and sheet from milk. After curing the raw casein in a solution of formaldehyde, the sheet and rod were ground and polished and a limited range of lamp fittings and kindred products were marketed. The quality was not good and the limitations of rod and sheet as sole items of basic material could not compete within similar moulded articles and the company eventually ceased manufacturing. Later, H.C Urlwin set up a plant to manufacture PF moulding powder and as production was far greater than could be consumed by Urlwin's moulding shop, the surplus was sampled and offered to the industry at competitive prices. Although only general purpose black powder was available, the quality was good, and Urlwin's got some support. But the unfortunate choice of used paper bags in which to dispatch the powder resulted in contamination that gave this commendable service a severe knock, and the plant reverted to supplying only the needs of Urlwin's press shop.

As far as I know these were the only cases of locally produced basic raw materials, and while all sorts of formulations are now carried out here I don't know of any further attempts in the basic field.

EARLY MACHINERY

Some of the earliest compression presses were used by ACI (formerly NZ Glass Manufacturers Co. Pty. Ltd (Mr W.L Elliot)) to produce bottle closures, by Falcon and General Plastics for buttons, and by Urlwin's for wiring accessories. Some of the earliest presses were gramophone record presses with very short strokes and hinged tilting heads that closed with a bayonet catch arrangement for the moulding cycle. These were very limited but as the general design was conventional all sorts of hydraulic and pneumatic presses were modified for steam heat or electric platens and pressed into service, before the arrival of more modern presses specifically designed for compression moulding of plastics.

The sixth pioneer on my list was Harry Herzog, and he has left his mark as a true pioneer by designing the first extruder and the first injection machine to operate in New Zealand. Little was known of his extruder as Harry maintained a closed shop in those days except that we saw some most impressive coils of clear acetate tubing produced by it. But his injection machine is worthy of special mention. Those of us who have seen it in operation are quite convinced that Harry was closely related to Heath Robinson,; but it worked, not only in producing the millions of bullet tips mentioned earlier but, after changing hands, in the manufacture of huge numbers of cup hooks and similar hooks with moulded-in screws. It was a frightening piece of machinery and because of the high pressure of the hydraulic system and the innumerable pin point leaks, the operator donned a thick overcoat and hat to keep himself reasonably dry, before he mounted the operating seat. Here before him was a huge lever about 5ft long, not unlike the levers used by a gripman in a cable car and to get extra purchase a foot pedal was attached to the bottom end. This lever closed and opened the mould. The ram was provided with oil at high pressure by a screaming gear pump driven by a frightful open chain from an electric motor, and the pump and chain kicked up a hell of a din. When the cycle started the operator adjusted his hat over his eyes, pulled the lever with all his might and the mould closed. On the wall was a switch that somehow started the injection cycle, and after the appropriate pause the mould was opened by an equally mighty pull of the hand lever.

Apart from Harry Herzog's extruder which was not available for inspection, the earliest extruders were built by British Chemicals Ltd of Dunedin, to produce casein rod. They were steam heated, terribly inefficient, probably adapted from food processing machinery, and developed a pressure similar to that of a meat mincer. They had a stubby screw which was cast in brass and was about 5" long and 3" in diameter.

When I started to write this article I had not intended to bring myself into the story, but I realise now that if I don't some interesting occurrences will be omitted. I was not one of the first pioneers, but on looking back I see now that, assisted by a dedicated team at Modern Plastics, I may have contributed to some of the earlier experimental work.

As we had failed in our attempts to get extruders from overseas, and being determined to get into the extrusion business, we started by borrowing the pattern for the brass screw from Dunedin and we built an electrically heated extruder. It didn't work. Not an ounce of plasticised PVC came out the front end. Obviously, pushing knobbly casein out of a die was a different kettle of fish from extruding flexible PVC.

So we started again. This time we got a 1" auger and after cutting off the front end used the rest as a screw. The extruder that resulted looked like a model railway locomotive with two funnels on the barrel where we inserted glass thermometers and a hopper that was not unlike a cab. The barrel and head were electrically heated with coiled nichrome elements insulated with Mica and covered with refractory clay. It was hand operated and clamped to my kitchen table, and was operated by my long suffering wife who was urged to turn faster and faster while I gazed at the die and fed in PVC granules to the hopper. Just as my wife was at the point of collapse - lo and behold! - out came the nicest wrist-watch strap that ever you did see! It worked and we thought in our enthusiasm that we had the design problem licked. It should be remembered that nothing was known to us or available in articles from abroad about the length-to-diameter ratios, about pressures or temperatures. We didn't learn much about extrusion from this machine except perhaps what not to do. Nevertheless, it was the forerunner of a battery of efficient extruders up to 4" diameter, and this small model is preserved in an acrylic show case in Modern Plastics' offices. We had not yet learned that work-heat developed within the plastic material by the action of the screw was taking place in the barrel and we never guessed it until quite accidentally we discovered that one of the electric elements in a production extruder had failed some time after starting up without loss of quality in the extruded section.

Then came the shock that some of the widely known extruder builders overseas were actually behind us in design; a revelation we refused to accept until forced by circumstances. We were having real trouble with the design of a die for lay-flat film, so decided to take advantage of the superior knowledge and experience overseas and ordered a die from the UK manufacturer. To our amazement we found when the die arrived we knew more about the pressures to be contended with in a lay-flat die than the designer and manufacturer of the imported die, who had located the 14" torpedo on a post made from a piece of 3" galvanised pipe. It floated all over the place and was hopeless and not until we had taken the next step and eliminated the post altogether did we get consistent lay-flat film.

In those days it was thought by some lay-flat film designers that with sufficient height and enough rollers a lay-flat bubble could be controlled however it came out of the die. In Germany I saw such a piece of equipment fitted with 36 rollers, which the designers confidently thought would enable them to get a nice neat roll of film. We had passed through this period of design months earlier and while the only German word I knew was "Nein", I was not game to tell them it wouldn't work, even though the word was completely appropriate.

I well remember the midnight oil burned by Ken Upton, Cliff Dowling of ICI and myself as we perfected the technique of extruding and sizing polyethylene water pipe. The smaller diameters were mastered fairly soon by closing the end and providing a slight internal pressure to keep the pipe in contact with the sizing die. But the larger diameters, particularly when starting up and cutting, eluded us for months until Ken developed a sizing die permitting an open ended tube and holding the tube in contact with the die by a slight vacuum provided by a domestic vacuum cleaner. It was months later that an article appeared in an overseas magazine describing how

this could be done and because of the description I have a shrewd suspicion that it was Ken's idea that had been pirated.

An interesting experimental extruder made by us at this time may be of interest. It could extrude 3 separate colours simultaneously and join them at the die to produce a single 3 colour garden hose. This machine was deliberately made to look like a conventional extruder with a single hopper, a large coupling revolving behind the barrel and a single hose die at the front. The extruder produced thousands of feet of gay, striped hose at a Wellington industrial fair and the public bought the hose before it was properly cooled. A notice on the machine invited the public to guess how it was done and nobody did. It was a good drawcard for publicity but a bit limited in its usefulness.

PIONEERING PRODUCTS AND PROCESSES

I use the term pioneering again. While quite a few of the things we wanted to make were successfully produced overseas there was little or nothing written about them and overseas manufacturers were understandably cagey, and also import control was rigid. So if we wanted to save valuable months there was no other way but to go through the same development stages and many a valuable lesson was learned the hard way by us all.

Decorative laminates were in very limited supply but how they were produced could only be guessed at. Again my kitchen table became the development lab, and my patient wife who deserved but never got a medal, put up with the smell of meths all through the house as we dunked sheets of white paper in meths-soluble dyes and hung them up to dry. Steve Meyer of Isolex Co. who produced small electrical insulating components from phenolic impregnated kraft paper, made us a roll of brown kraft paper for the bulk pile and between stainless steel sheets in a standard moulding press we produced the first decorative laminates. The final experiment with a top sheet of wallpaper impregnated with urea resin produced very acceptable laminates, and the timely release of a licence to import from USA the top sheets of melamine impregnated paper enabled a limited run of first-class laminates. The decision to discontinue had nothing to do with the production side.

During the war years a very high standard of inspection was demanded and while there was little time for future development we all became inspection conscious, and no doubt this paid handsome dividends when we were again free.

WAR TIME PRODUCTION

Our production at Modern Plastics was mostly phenolic components for the ZCI radio transceivers, many hundreds of which were made in New Zealand and forwarded to the various theatres of war. Many are still operating today in ship-to-shore radio communication around the coast of New Zealand. Inspectors were in daily attendance with their test equipment and gauges, and quality was of the highest order. I recall one ingenious application of phenolics. It was an insulation chain of phenolic links for aerial guy wires. They had to pass a tension test as well as an insulation test, and the tool to produce this continuous chain might still present a poser for a toolmaker with today's modern equipment.

Soon after the armistice was signed and we were freed from control there was open slather by all who had held stocks of UF moulding powder, most of which had far exceeded its normal shelf life.

Thousands of cups, saucers and plates and lamp shades appeared almost over night to satisfy a bare market and little girls again got dolly's tea sets for the first time in their young lives. This provided a very welcome breathing space while we tooled up for more serious production.

Incidentally, it is perhaps noteworthy that as far back as 1945 the first steps were taken to organise a plastics design competition, and Mr Urlwin donated £50.00 for the provision of suitable awards. The first plastics exhibition was organised and the showcases were exhibited in the main centres in 1949.

LACK OF TECHNICAL KNOWLEDGE PRODUCED ITS MISTAKES

The enthusiasm we displayed in learning how to do things inevitably led to mistakes and many a sleepless night followed this trial and error development. I remember a local fabricator who set himself up as an expert in lining vats with polyethylene sheet and making fluming to carry away harmful fumes. As we look back we are amazed that in our enthusiasm we completely ignored even the fundamentals in the behaviour of all materials. For instance, the expansion and contraction due to change of temperature. This is usually much greater in plastics than in other materials but still we forgot to make allowances for it.

A ducting about 18" in diameter and 60ft long was called for to remove the fumes from a vat. The fabricator welded up sheet polyethylene with a nitrogen torch and provided a flange at either end which he fastened with bolts and plates. Each morning the flanges were torn off but nobody saw it happen or knew when. Finally, one end was left unfastened and the contraction between midday and midnight was measured. It was only 5% but in 60ft accounted for a 3ft reduction in length. The ducting was then set on roller supports and permitted to move freely and through a hole in the wall and as far I know is still there.

Another bad mistake through ignoring the same law occurred when a 5,000 gallon beer vat was lined with polyethylene sheet. With all the precautions taken the lining didn't fit the vat accurately and the loss that occurred the night following the filling of the vat was a national calamity! This was eventually overcome by scrapping the idea of trying to fit an accurate lining. A slightly smaller liner was welded up and dropped into the existing vat. Then simultaneously the space between the liner and the vat was filled with a cement slurry and the vat was filled with water maintaining the same pressure on either side of the liner. Perfect contact was achieved and the lining operation was a success.

Another unexpected problem comes to mind with the failure to recognise the temperature rise in black polyethylene water pipe left out in the sun and without shelter. In the early days of farm reticulation with black water pipe, no special instructions were given and some farmers laid their water pipe in the most unusual places. Such a farmer complained that his installation to a cow shed burst repeatedly at about 3.00pm each day, although no water was being drawn off. On investigation we found that he had strung his pipes across a gully on a wire in a place where not the slightest breeze could penetrate to cool the air. The draw off of water ceased after the morning milking and the static water in this suspended section of the pipe got hotter and hotter through the heat absorbed by the black pipe until a maximum was reached at mid afternoon. Even at a very low pressure the pipe couldn't stand up to this and the water that gushed out from the burst pipe was an unbelievable 160°F. Really scalding! The cure was to drop the pipe to the ground level of the gully where there was ample shade provided by low shrubs.

In spite of these mistakes, some amusing, some serious, our industry continued to grow, closely behind and sometimes in front of overseas developments. Our knowledge gained the hard way, augmented by overseas experience now more readily available, has provided the foundation on which our industry has grown and matured. (Circa 1941 to 1951)

Many of these early pioneers are still with us, some now in retirement but all very proud to have been in the industry from its earliest days and to see it now, an industry of national importance".

Another interesting Pioneer story comes from the memoirs of the late John Hobin who like dozens of RNZAF technical men made "foreigners" out of Perspex and Plexiglass from crashed aircraft for sweethearts and friends at home, many of which were in the shape of hearts and bracelets. Many of these were sold at considerable profit to US troops. The bracelets were moulded into shape by bending in hot water.

After the war, John received an order for 200 gross of cabinet handles, to be made by the same basic process. Thus in 1946 began the firm we now know as Clearlite Plastics Ltd, started by John, his wife Lorna and his wartime buddy Jack Luke and his wife Lola.

NAMES OF CURRENT PLASTICS PIONEERS

Bill Bell	Bruce Blows	Norm Dixon	David Dunlop	Jack Thompson
Ken Fletcher	Gary Clatworthy	John Courtenay	Cliff Dowling	Ken Upton
Ian Fairgray	Ian Faulconbridge	Vic Field	Bill Foreman	Brian Wallace
Robin Foreman	Rob Hall	Rob Harris	Bert Hill	Merv Wilson
Harry Hobin	Peter Hussey	Roger Jackson	Brian Jenkins	Des Pennell
Graeme Jensen	Gilbert Johnson	Don Kane	Maurice McKinley	Ron Watson
Keith Muir	Terence Nolan	Merv North	David Oakley	Murray Valentine
Bob Poffley	Cliff Poole	David Pope	Bob Wilson	Wal Raine
Keith Reid	Keith Saunders	John Shea	George Wilson	Tom Short
Peter Sloane	David Smale	Graham Smout		

PLASTICS PIONEER LUNCHEON, AUCKLAND 1992

PLASTICS PIONEER LUNCHEON, AUCKLAND 1992

PLASTICS ENVIRONMENTAL & ADVISORY COUNCIL (PEAC) - AN OVERVIEW

In the early part of 1989 discussions began between **Dr David Warburton** and the **Plastics Institute of New Zealand** over the need to develop some sort of strategy to counter the mounting negative comment concerning plastics and the environment, that the plastics industry was experiencing.

Late in that year the **Plastics Environmental & Advisory Council** was established with David as Manager and **Wendy Pugh** as his assistant. Funded by the Plastics Institute, PEAC was charged with promoting the positive image of plastics and countering the aforementioned negative comment. The objectives PEAC adopted at that point essentially remain the objectives of PEAC heading into 1994:

1. Promote the positive lifestyle aspects of plastics.
2. Provide advice to all parties investigating financially viable recycling operations.
3. Collect plastics data on:
 - * New Zealand activities
 - * Environmental issues
 - * Relevant international developments
4. Educate and inform the public on environmental issues and plastics.
5. Educate and inform PINZ members on environmental issues and plastics.

PEAC proceeded to promote the positive image of plastics in a variety of arenas - the classroom, at local and central government levels, at community forums and via media avenues.

Late in 1992, David left PEAC to take up the position of Director of the recently formed **Packaging Industry Advisory Council** while Wendy stayed on and took up the newly created position of **Environment Officer**.

PEAC continued its work as the environmental "division" of PINZ and in mid-1993 started preparatory work on an innovative initiative - the creation of a totally new entity, the **Plastics Foundation for Environmental Research**.

In August of this same year Wendy left PEAC and took up a position with one of the PINZ member companies. In late August **Peter Whitehouse** was brought on board to replace Wendy, and almost immediately commenced work on the development of the Foundation.

Over the next few months a working group from PEAC developed the concept of the Foundation further, authoring rules and guidelines, identifying a structure and arriving at a mission statement, namely, -

The enhancement of waste management and conservation of plastics by the promotion and funding of research, programmes and applications appropriate to New Zealand.

The Foundation Council will include representatives from both inside and outside the industry and will look at a full range of waste management and conservation options ranging from waste to energy, to innovative recycling technologies.

The Foundation is now well down the track to launch and project work is expected to be underway in the first part of 1994.

In tandem with the development of the Foundation, PEAC continues to engage in a range of activities including promotional work, dialogue with government figures, working with industry sector groups on specific recycling or promotional projects, and continuing its general education and information role.

As a new style of politics emerges and as "green consciousness" continues to rise, PEAC can look forward to continuing to play a lead role on behalf of the industry in promoting, at all levels of New Zealand society, the positive aspects of plastics and refuting, when necessary, the often misinformed criticism arising from time to time.

PLASTICS INDUSTRY TRAINING ORGANISATION

The industry, and the Institute in particular, have for many years taken an active interest in industry training. Some three years ago, the Plastics Industry was actively progressing some particular initiatives through the National Technical Training Committee which coincided with the launch of the Government Industry Skills Training Strategy. The key aspects of this strategy were:

Control of industry training (and apprenticeship), passing to industry itself.

Government funding for industry training to be through industry training organisations.

Systematic training to be extended throughout industry and thus made accessible to a wider range of people.

Government funded training would be linked to National Standards developed jointly by industry and government.

The proposed Industry Training Organisations (ITOs) would therefore represent particular industries or groups of industries, and be responsible for the design, management, and delivery of training for their industries. These ITOs would be primarily funded by industry. At this time the New Zealand Qualifications Authority (NZQA), in partnership with industry, was in the process of developing new qualifications within a national standards-based framework. Education and training programmes would be linked to the standards if national certification was to be achieved. As new training programmes were developed by industry, they would be assigned a level within the national qualifications framework.

To implement this strategy, the Industry Training Act was passed in May 1992.

The Plastics Industry, meanwhile, already had industry-specific trade and technician training and qualifications systems, together with a long history of multi-level, self generated informal industry training programmes. In addition there was, at Manukau Polytechnic, the special purpose-designed and equipped National Training Centre. Finally there was already an industry wide training plan, and the resources to develop it into a full operational programme.

The Plastics Institute of New Zealand had already invested heavily in the National Plastics Training Centre, and had developed an Industry Collective Employment Contract that encompassed a skills enhancement programme. A Plastics Industry Training Organisation was recognised as a key mechanism to obtaining an on-going return on this investment. More specifically, the National Technical Training Committee of PINZ believed that our industry's interests in the future would be best served by the formation of a Plastics Industry Training Organisation (PITO).

The National Technical Training Committee therefore arranged to have this topic discussed at the 48th Conference of the Plastics Institute of New Zealand, Christchurch 23-26 April 1992. Conference agreed that the National Technical Training Committee should continue its work on both developing training for the plastics industry as a whole, as well as progressing the concept of a Plastics Industry Training Organisation (PITO). The NZ Engineers Union was also involved, and in particular acted in conjunction with PINZ to secure developmental funding for PITO, and to co-ordinate employee input.

A small PITO sub-committee was formed October 1, 1992 to focus on the task of setting up this ITO in anticipation of industry support. A seeding grant of \$9,000 from the Education and Training Support Agency (ETSA) was used for this.

PITO came into being on 17 May 1993. Established under the Industry Training Act as a result of the above initiatives, PITO is an Incorporated Society. Its offices are on Level 4 of the Manukau City Shopping Centre, where it is co-located with both PINZ and PEAC. The PITO Manager, John Berridge was appointed in September 1993.

In essence its mission is to provide training and development services to meet the needs of the industry.

The PITO Executive Board directs these activities, and meets monthly. The elected Chairperson and members are at present:

Tony Miller (Chairperson)
Bill Newson
Suze Wilson

Reese Plastics Ltd
NZ Engineers Union
NZ Engineers Union

Iain Davies
Darren McClenaghan
Alan Dorset
Gordon Wyatt
Graeme Allan

Aotea Plastics Ltd
Trigon Packagings Systems (NZ) Ltd
CHH Plastic Products
Hutt Valley Polytechnic
Hardie Iplex

One of the first initiatives under the Plastics Industry Training Programme was to develop on-job training for process workers. As a result of this 52 Unit Standards in plastics materials, extrusion, injection moulding, thermoforming, blow moulding, blown film, and film conversion were registered with the New Zealand Qualifications Authority (NZQA) in early 1993.

The first of the job training booklets (at Level 2 of the Plastics Collective Contract) in each of these streams were completed by Ralph Hill Associates under contract to PITO in late 1993. These are to be trialled with a selected sample of learners early in 1994, before being approved for use throughout the industry. The production of the remaining 44 Level 3 to 5 units is continuing on into 1994.

The future work and development of PITO is an exciting prospect. The launch of these 52 learning units into the industry will be followed by the development of further unit standards in other processing streams, including injection blow moulding, EPS, rotational moulding and cable making. Also planned is the development of further unit standards at skill level 6 and above, and the development of Plastics Industry national certificates and diplomas within the NZQA Framework. The assumption of the administration of plastics industry apprentices is another immediate priority and this will be accompanied by a drive within the industry to boost overall apprentice numbers.

A SHORT HISTORY OF SURVIVING FOUNDATION MEMBER COMPANIES

When research began on the selection for contributions to this part of PINZ's first fifty years, it began to resemble the book of Genesis in the Old Testament, ie: "Who begat who". It is surprising how many plastics companies, although very efficient in modern day business methods are remiss in protecting archival records and memorabilia. All too often routine clean-ups, and periodical dumping of out-dated financial records, have seen the demise of valuable archive material that might have been preserved for future generations. This is most prevalent in firms that have changed premises and/or identity. It has been "down with the old and in with the new".

In the end, only four identifiable companies who were foundation members of the Institute seemed to have survived historically over the full 50 years.

H.C Urlwin Ltd - Founded in Christchurch in 1921 and now PDL Industries Ltd

Tracing the lineage of the 1921 registered company of H.C Urlwin Ltd, and the current multi-national PDL Industries Ltd of today, has not been as daunting a task as it first appeared to be. The main source of information of the original H.C Urlwin's came from a full page interview of Harry Urlwin published in the NZ Truth on 29th September 1937 obtained from the memorabilia kept by the late Mort Foreman, while the majority of the information on the history of PDL Industries came from an excellent biography of Sir Robertson Stewart published in 1989, and a profile compiled (but never produced) for the 50th Anniversary of PDL.

The two leading players in the saga of Urlwins/PDL were the founders and principals of both firms, who surprisingly had similar backgrounds, with both sharing a love for the developing plastics industry and more importantly were men who were determined to succeed.

Both men began their business life as registered electricians, and both became plastics engineers in their youthful years. In spite of the generation gap (or more), there was always a great rapport between the two of them, and the Bob Stewart of the early days always regarded Harry Urlwin as his mentor. In return Harry regarded Bob as the person to train thoroughly in the growing plastics industry, probably with the thought of an successor in due course. Although that did eventuate in the end it was not in the form of "rote" of succession.

Bob Stewart served an apprenticeship at H.C Urlwins from 1929, at the age of fourteen, at 15/- per week. Three years later, at the age of 17, he passed his electrician's examination. He worked at Urlwins for a total of nineteen years before moving as manager to another plastics manufacturer where he eventually bought the shares and became sole owner in 1957.

We are indebted to Bob Stewart for his assessment of Harry Urlwin as a man, and for a glimpse of his early background.

Harry was a dynamic entrepreneur, years ahead of his time. He was not born with a gold or silver spoon in his mouth and as a young man he certainly never had it easy. When he was sixteen years old he ran away from his home in London and shortly afterwards worked his passage to New Zealand, where he took a job in the coalmines on the West Coast until the outbreak of the First World War in 1914. He joined up and was gassed in the trenches, which affected his eyesight for the rest of his life.

Harry was repatriated to New Zealand when the war was over and given an adult apprenticeship in the electrical industry. He quickly absorbed his tuition and after becoming registered he started an electrical contracting business in a garage in Woodham Road, Christchurch.

Harry's dictum in life was "Never give up, always say you can do it". He was a good teacher and the word not included in his vocabulary was "Fear".

In 1935, Harry sent Bob Stewart at the age of 21 to England for a year to learn the latest developments in plastics manufacturing and by the start of World War II in 1939 he was established as New Zealand's only trained plastic's engineer.

Back now to the H.C. Urlwin's story line. The 1937 article in the NZ Truth was headed "Scientists Baffled By Secret Process of Plastic Moulding". Harry had shifted from his original workshop in a garage at Woodham Road, Christchurch into these premises in Manchester Street in Christchurch City and later to his Speedee Appliance manufacturing plant in Waltham, Christchurch, where by 1937 he employed over 200 people manufacturing plastic products, predominantly in lampware and household goods.

Harry Urlwin earned the reputation of being a good boss. He claimed that he knew all his employees by their first name. To break factory monotony he was one of the first entrepreneurs to have "music while you work", and an in-house cafeteria. He wanted results for wages but tried to make a day's work human.

His efforts in marketing were exceptional for the day and age. He had established branches in Wellington and Auckland and had a traveller for Speedee Products call upon merchants throughout New Zealand at least twice a month.

H.C Urlwin's continued to trade until 1968 when they were bought out by Bob Stewart who had by then bought all the shares in Plastic and Diecasting Ltd, and renamed it PDL Industries Ltd. Bob had left Urlwin's employment in 1947 when he became disillusioned by Harry's reluctance to spend money on new dies for an ambitious design plan for making plastic electrical plugs, sockets and switches.

When PDL purchased Urlwin Industries Ltd, it was New Zealand's largest manufacturer of accessories. This major manufacturing operation, which included 10 electrical wholesale branches throughout New Zealand, formed the nucleus of PDL Sales Ltd.

The additional plastic moulding, metal pressing and toolroom facilities quickly enlarged PDL's capacity and a wide range of products was introduced to both local and export markets.

In 1974 research into the establishment of an off-shore enterprise was carried out. It was finally decided to build a factory in Malaysia. Land was purchased, a factory erected and PDL Asia Sdn Bhd engaged its first employee. British Standard electrical accessory componentry was manufactured in Christchurch and assembled in Malaysia for sale throughout South East Asia.

It is understood PDL was the first New Zealand company to establish an overseas manufacturing unit specifically set up to meet the competitive market place in the region. The company was later called PDL Wylex Sdn Bhd following the investment by Geo. H. Scholes PLC of Manchester, UK. An investment was also made by Gerard Industries Ltd of Adelaide, Australia and the enlarged company manufactured and sold PDL, Wylex and Clipsal products.

Sir Robertson Stewart was knighted in 1979 for outstanding contribution to manufacturing and exporting.

Today PDL has branches New Zealand wide. PDL Plastics Ltd is a custom manufacturer of specialised high-tech mouldings, blow mouldings and metal turned parts and pressings. Custom design and tooling is offered as a major customer service and PDL Packaging Ltd is a complete packaging service in blow and injection moulding, specialising in cosmetic packaging-decoration (foil), dispensing, and child restraint closures. A complete design and tool facility, PDL now has a staff of over 2,000 persons worldwide.

Imperial Chemical Industries (NZ) Ltd - First registered in New Zealand in 1935 and now named ICI New Zealand Ltd

Over the years there have been several chemical firms supplying raw materials to the New Zealand plastic's industry, however there only seems to be one survivor in continuity of name from the foundation of PINZ in the 1940's. Unfortunately the records of that company were inadvertently destroyed when it shifted from its own ICI building in the Terrace in Wellington to new and smaller premises a few years ago, so we are indebted to ICI's retired senior manager, Brian Jenkins for a precis of that firm's history.

The name ICI as a supply house has been strongly linked with the Institute since its inception by various top management staff, three of whom were Cliff Dowling, Merv Cox and Brian Jenkins. Cliff and Brian are Plastic Pioneers of today.

It is known that Imperial Chemical Industries (NZ) Ltd, was first registered in New Zealand in 1935, as a "colonial" branch of the UK based mother company along with a similar branch in Australia. Prior to trading in New Zealand as a trading company in its own right, chemical products of ICI in the United Kingdom and Australia were sold by various agents. Two of those companies so involved, Ellis Martin and Campbell Bros Trading Co's, joined forces in Wellington in 1939 to become the trading operation of ICI.

Cliff Dowling was part of this firm before joining the Army at the start of World War II. Serving in the desert campaigns with the NZEF, he was taken prisoner. Cliff rejoined ICI New Zealand after being released from a German POW camp after the war, and was appointed head of the Plastic's Section. In 1948 he spent a year with the United Kingdom Plastic's Division of ICI, and on his return he travelled extensively throughout the country presenting the growth of the plastics industry world-wide, and promoting the company's raw materials to the fledgling but growing plastics industry in New Zealand.

Thus began a relationship with the industry and plasticists that lasted the rest of his business life. This included, in particular, the relationship with PINZ where his enthusiasm for Institute matters resulted in his election to the coveted office of National President in 1956.

The first corporate associate member to be National President was Cliff Dowling in 1956. Right from the first pioneering days Cliff Dowling's name had been an integral part of the Institute's minutes, especially in regard to training and awards.

He remained directly involved until the late 50's when he became Commercial Manager of ICI and subsequently a Director and his position as head of the plastics area was taken by Merv Cox who went on to become the President of the Plastics Institute in 1963.

ICI New Zealand Ltd, as it became, was however only one of the many supply houses offering materials to the industry as it grew very quickly, and over the years, amongst other supply house stalwart members was Wal Raine of Gollin & Co., who was Auckland Branch President from 1962-1964 and was elected National President in 1971.

Most suppliers of machinery and raw materials, whether from Europe, UK, Australia or the USA, endeavoured to assist the growth and knowledge in the local industry by briefing technicians, technical service and commercial personnel. These company representatives travelled throughout the country on general visits and then were often required to lecture the various PINZ or affiliate sectors in the evenings on their specialist subjects. Commercial assistance from suppliers was also in demand and "extended credit" became, for many companies became a way of life. As one supplier, in reply to a toast of "The Supply Houses" at a PINZ meeting, responded, *"On behalf of the merchant bankers here present"*. It had been a hectic period of enormous growth, the advent of many new and wonderful raw materials and equally, the very rapid development of improved processes and machinery which opened up new areas of manufacture and raw material supply. There is no sign of this stopping although it does seem that, in the main, the new developments today, in both the raw material and machinery fields are principally in the area of modifications and complements to existing products and processes.

Plastic Products Ltd - Formed in Hamilton in 1940 and now named CHH Plastic Products Group

James David Morton Foreman was born in 1902 in Cheshire, England. An engineer by profession, Morton came to New Zealand in 1925 and worked in various parts of the country, finally settling in Hamilton in 1936 and opening his own motor dealing company, "Foreman Motors". Prior to his arrival in New Zealand, Morton married Kathleen May Ferguson in 1925, and after settling in New Zealand, had three sons, Bill, Jon and Robin.

As the Second World War approached in 1939, Morton realised from his experience of the First World War that it would be extremely difficult to import certain commodities into the country, so he decided to manufacture a product which relied significantly on indigenous materials. Morton went from one retail shop to the next in Hamilton and asked what product could not be obtained locally. The answer was dolls!

So, in 1939 Morton began experimenting. He moulded dolls heads using a mixture of ground sawdust, casein and formaldehyde on an old screw letter press and in 1941 Plastic Products Ltd was formed, located in an old motor car paint shop in Hood Street, Hamilton. Morton's business grew until he had 30 staff employed at Hood Street during the war years. The company ran 3 hydraulic presses and gradually moved into making doll bodies. Exporting dolls to Australia became a major part of the company's business.

In the early 1950's Plastic Products moved to new premises in Victoria Street (now Les Mills) where it expanded into making industrial plastic products such as vacuum regulators and milk meters, in addition to household products like kitchen canisters, darning trees and powder compacts. By 1950, imported synthetic moulding powders from England, Japan and the USA had largely replaced the wood-casein as raw material and during the 1950's, expansion into the fields of injection moulding and printing took place. Along with sons Bill and Robin, the staff numbers grew to about 80. After the War, the company purchased more machinery, including two 100 tonne Stacey presses to add to the company's eight hydraulic water operated presses. Another extremely popular product, in the late 50's and early 60's were the Kaydee plastic sandals. These were widely exported in addition to the dolls.

In 1962 Plastic Products moved to its present facility at Te Rapa, which was designed and built to the company's requirements. In 1964 a merger with the plastics division of Alex Harvey Industries enabled the company to take over AHI plastics factories and provided a major injection of capital for further expansion. As part of the agreement, Mort Foreman and Tom Short became Directors of AHI. A further merger between Alex Harvey Industries and Australian Consolidated Industries in 1969 made the company one of the largest manufacturing groups in the country. Morton Foreman retired in 1969, justifiably proud of the highly innovative and profitable plastics company he had founded thirty years previously.

Since the merger, further reorganisation within AHI resulted in a split between the plastic moulding, plastic film and engineering activities. The plastic moulding plants at Auckland, Hamilton, Wellington and Christchurch were brought together as Plastics Products Moulding Company, with the head office of the company located in Hamilton.

In 1985 Carter Holt Harvey Ltd purchased the interests of Alex Harvey Industries and from that transaction Carter Holt Harvey Plastic Products Group Ltd was formed. This group has continued to expand and now comprises seven operating companies, with three satellite operations in Wellington, Christchurch and Auckland, and companies in Sydney, Chile and the USA. The staff numbers now comprise approximately 900, of which 400 are still at Hamilton on the original site. The building has, of course, been added to over the years to accommodate the expansion of the companies within the Group. Carter Holt Harvey Plastic Products Group Ltd continues to be the largest plastics manufacturer in New Zealand.

Under Morton Foreman's guidance, Plastic Products placed a strong emphasis on quality and innovation and in producing the finest plastics people in the industry. Morton endeavoured to make anything asked of him, from Bic pens to household cleaning bottles. This very simple marketing concept has let Plastic Products into many areas in the plastic manufacturing industry.

J.W.F (Bill) Foreman joined Plastic Products in 1953 as a costing/quoting/sales and purchasing clerk when the business was at Victoria Street. When his father left for an extended overseas trip in the 1950's, Bill managed Plastic Products and continued in the role of General manager of the company until 1966. (Five years later, Bill formed Trigon Plastics Ltd in Hamilton). Bill has a practical/pragmatic approach to management and believes in inspiring people to work hard for the company to increase both profits and sales.

During Bill's time with Plastic Products, he saw a number of new developments, such as the manufacture of Ruakura vacuum regulators, milk flow indicators, and one particularly memorable new development - PVC sandals, which were distributed through a company called Kaydee Footwear. The "Kaydee" sandals were extremely popular, as many will remember, and in the peak year Plastic Products manufactured 250,000 pairs of sandals. The dies were subsequently exported to Melbourne where many more millions of sandals were made.

Bill Foreman remembers the company introducing its first blow moulding machine in the late 1950's. The machine was designed by Doug Wenham and with it the company blow moulded toy footballs, acid bottles and floats for plumbing fittings used for toilets, water troughs, etc. Millions of bottles were later manufactured for Unilever and many other major New Zealand companies. Plastic Products grew to be the biggest blow moulding company in the country, with its blow moulding operation soon becoming as large as its injection moulding operation.

One very interesting development within Plastic Products was that of the cadet/apprenticeship training programme. This began in the early 1960's and proved to be very successful for the firm.

Bill has had a great deal of satisfaction in seeing the company grow over the last 25 years into its present form of CHH Plastics Products Group Ltd.

Bill Foreman is currently the Chairman of Trigon Industries Ltd.

J.G (Jack) Jenkins joined Plastic Products in 1978 from the position of Manager at AHI Metal Containers in Wellington. After three years as General Manager of what was then AHI Plastic Moulding Company, Jack was promoted to his present position of Managing Director in 1981. In 1985 Jack saw the acquisition of AHI by Carter Holt Harvey and since then has seen the purchase of five additional companies by CHH within the Group.

Jack has now been with the company 13 years and is Managing Director over nine Business Managers based in Hamilton, Auckland, Hastings, Sydney and Santiago, Chile.

THEN AND NOW

Optoplast Ltd - Founded in Wellington in 1941. (Name retained throughout)

In 1941 Harry Herzog, a Viennese by extraction and a very clever design engineer, set up business in the second storey of a building at what was then number 221 Willis Street, Wellington. At that time New Zealand was completely on a war footing with the NZEF in action in the Middle East, and with the threat of a Japanese invasion, munitions were a very important part of New Zealand's defence.

Harry designed and built an ingeniously effective injection moulding machine and turned out millions of tiny plastic cones that were inserted into .303 bullets to stabilise their trajectory. Under contracts from the Munitions Controller, Harry's homemade machine, probably the first successful injector in the country did a sterling job for New Zealand's war effort. A dramatic eye-witness working description of this machine can be found on page 69.

From this modest beginning Harry's inventive ingenuity turned towards the design and manufacture of at least one plastic extruder and several injection machines for various purposes, including making the first blow moulding machine in the 1950's.

Having outgrown the Willis Street premises, Harry had moved to a building in Oakpark Avenue (off Vivian Street) in Wellington City.

In 1956 Optoplast moved to its present premises at 7 Tauhinu Road, Miramar, where Harry was joined by his sons John and Robert Herzog. They made a good threesome, John with his management training and Robert following in his father's footsteps as a trained engineer. Harry worked along with the boys until he died in 1986, always actively involved in plastics design and manufacture, and it is reported that he worked up until the week he died.

At the peak of their manufacturing business they employed some 90 people in the manufacture of toys and houseware. Latterly they have changed direction into plastic packaging manufacture and currently employ some 15 persons.

The Herzog family have operated successfully as a plastics team for 53 years under the original name of Optoplast Ltd. They are plastics pioneers in every sense of the word.

Harry Herzog was guided by the common sense adage of "Don't Look Backwards, Look Forward". A principle that John and Robert stick to still. Optoplast, although kept at a "low profile" by its owner-operators, remains a highly respected entity in the plastics manufacturing industry.

Note: It is acknowledged that there could be other plastic firms existing today that have retained their original names, who although not actually foundation members, have given meritorious service to PINZ, ie: Clearlite Plastics Ltd, established in 1946.

CURRENT PINZ STAFF

Bruce Meldrum is the first person to hold the title of Chief Executive Officer of PINZ. As Chief Executive Officer he is backed by two senior executives: John Berridge, Manager of PITO (Plastics Industry Training Organisation) and Peter Whitehouse, Environmental Officer of PEAC (Plastics Environmental and Advisory Council). Bronwyn Stringer (affectionately known as "The Smiler" ☺) is the Office Manager.

Current Staff of PINZ: Bronwyn Stringer, Bruce Meldrum, John Berridge, Peter Whitehouse

PINZ CONFERENCES

The highlight of the year for New Zealand "plasticists" and their partners is the Institute's Annual Conferences.

Right from the first Annual General Meeting held at Wellington on 6th December 1944 there was an obvious camaraderie between persons in the Plastics Industry. It was not only "Shop Talk", since it developed into a sincere sense of fellowship in a common interest of the remarkable growth of a new industry.

From one day affairs, the annual meetings soon developed into overnight stays, and the fun and good fellowship blossomed accordingly.

At the AGM on 10th November 1955 a milestone decision was made. The minutes note, *"It was the general feeling of the meeting that members, if possible, should take their wives and further, that any members who were taking a car to Auckland (for the meeting on 27th April 1956) should be asked to advise any vacant seats"*. This was the first occasion that wives or partners were invited to attend Institute meetings. That modest statement of intent soon snowballed into regular social occasions and a great deal of fun, with members and their partners looking forward with pleasure to future occasions.

In 1960 a resolution, apropos of the formation of PINZ Branches, was passed that bi-annual conferences be in the form of weekends at suitable resorts with social activities being held over the weekend and the business session on the Monday. Furthermore it was decided that the Branches would be responsible in turn for the organisation, subject to the approval of the Executive. Thus a new era of PINZ conferences began with the first such weekend at the Wairakei Hotel. This was a favourite venue for PINZ conferences until sheer weight of numbers forced the conferences into larger premises.

Queenstown, Waitangi, Rotorua, Christchurch and Auckland became favourite venues, although New Plymouth, Wellington, Hanmer Springs and Nelson were quite often used.

Conference Photo's

The Conference format varied from time to time, from two days to three days or even four days, depending on the times and special occasions, and the Branch organising the event. There was keen competition to create the best ever conference. Often the timing co-incided with an ANZAC Weekend. A typical conference format over the last ten years or so has been:

Day One: Registration and Cocktail Evening (Informal)

Day Two: Opening of Conference - Discussion groups. In evening formal dinner and award presentations.

Day Three: Mornings business and workshops, afternoon sports, golf and tennis tournaments and special interest tours. In evening informal dinner with sports trophies presentations.

Day Four: Business and AGM and in the evening a fancy dress function, cabaret or whatever including a "Cads" presentation.

Guest speakers at conferences have been of high calibre, usually innovative. While the delegates were at business sessions the partners usually had their own programmes and guest speakers, usually in line with the specific conference theme.

The President of the time usually chose the conference theme, and the "Keynote" speakers were in keeping with the theme.

Over the last few years sponsorship by member companies has greatly enhanced the glamour and scope of conferences.

Entertainment has always been of a high note of conferences, particularly in regard to the last evenings social function and many members will fondly remember circa 1973 John Dickinson's "Man from Uncle" theme, and the circa 1988 "Dinky Pinky" ballet of Auckland Branch's 20 odd members and partners troupe dressed in Pink Batts Covers performing song and dance routines, Graeme Ogg's impression of Dame Edna the Australian possum mother, Gary Clatworthy's miming, Ian Fyfe's pianoforte entertainment at Hanmer Springs, circa 1976 and Colin McGowan's special disappearing carnation trick.

The last evening at conference usually featured a "King Cad" presentation of an engraved pewter mug trophy for that conference's especially chosen "rascal". The "Cad" appointments were adopted in 1971 after Phil Hall had witnessed its implementation at conferences of the NSW sections of the Plastics Industry Association of Australia. This "King Cad" presentation has created a lot of good natured fun and ribbing at conferences and to date 22 members have been chosen by a committee of ex "Cad" peers to accept the dubious honour at a ceremonious presentation in which a "King Cad" potion is drunk from the trophy after reciting "The Cads Oath". Latterly, not to be outdone by their "Lords and Masters" the ladies group have made an annual "Cadess" award to the most "rascally" lady.

In 1993 the latest recipient of the award Tony Wakelin introduced an admirable idea of a "Cad's Foundation", the aim of which is to sponsor a young plastic industry cadet or offspring of someone in the industry annually to an "Outward Bound" course. Thus putting something back into the industry out of all the fun and hilarity of conference.

Cad's Night at Conference Photo

Cad's General Meeting Photo