

28/07/66 RFJ to DNS – Summary Statement: Ted Johnson, Warrnambool City Engineer, phoned Mr. Thomson, Manager of GKN Lysaght asking them to get approval for the Safe-T-Climb device as otherwise he cannot certify that the project can proceed. 1/08/66: Letter to Department of Labor & Industry (DLI). Mr. Thompson and RFJ to visit Mr Fahey of DLI to expedite. Note: The Safe-T-Climb device makes it possible to safely climb the ladders attached to the legs without a continuous safety cage surrounding the ladder. Apparently this device had never been used before in such an application.

Some correspondence, drawings and illustrations are enclosed in the yellow folder marked **28-7-66 Saf-T-Climb**, which includes a photograph published in SAA MA1.3-1971 "Steel Structures Part 3 – Forms of Construction", showing how the Saf-T-Climb rail is attached to the completed FJ water tower to enable the user to move from the bottom of the ball (underneath the ball) to the top of the ball with the user always remaining "belly down". On two occasions the Saf-T-Climb sleeve has to be removed from the end of a guide channel and attached to a different guide channel. A rope attached to the user's harness, can be clipped to a ladder rung at any time to ensure safety while unattached during such manoeuvres.

1971 SAA MA1.3-1971 Part 3 – Form of Construction at completed FJ Water Tower.

1965 Drg of GKN SAF-T-Climb equipment 1965

01/08/66 GKN to City Engineer, Warrnambool

01/08/66 GKN to Dept. of Labor & Industry.

STEEL STRUCTURES

A MANUAL FOR USE IN THE
DESIGN AND CONSTRUCTION OF
STRUCTURAL STEELWORK

COPY
EXTRACTS.

PREPARED BY THE
AUSTRALIAN INSTITUTE OF STEEL CONSTRUCTION
84 PACIFIC HIGHWAY, NORTH SYDNEY, N.S.W. 2060

AND PUBLISHED BY THE
STANDARDS ASSOCIATION OF AUSTRALIA
STANDARDS HOUSE, 80 ARTHUR STREET, NORTH SYDNEY, N.S.W. 2060

S.A.A. MA1.3 - 1971

PART 3 - FORMS OF
CONSTRUCTION

FIG. 3.53 :

PIPE - SUPPORTED
ELEVATED SPHERICAL
TANK (WARRNAMBOOL VIC)

Foreword

The modern steel structure represents the competence, skill and ingenuity of a number of different groups: the designing engineers; the steelmakers who produce the plates and sections; those who set out and fabricate the various components in the workshops; and finally the team on the site erecting these components to form the finished structure. As the structural steelwork industry has expanded these groups have become larger and their activities more complex and separated, giving rise to a very real problem of co-ordination which can only be solved by ensuring that each group has a proper understanding of the tasks of the others. It is in this context that many people associated with the industry have long felt the need for a comprehensive manual applicable to Australian practices and conditions, and covering every aspect of the use of structural steel in building. This need was further recognized at a meeting convened by the Australian Institute of Steel Construction in the latter part of 1964 when a committee was formed with the responsibility of drafting a manual to meet the above requirements.

This Manual is intended to be complementary to the Australian standard code CA1, The Use of Steel in Structures, but is written in a more discursive and instructive form and covers a somewhat wider range of information than is possible in the code. The Manual itself is not therefore an "Australian Standard" in the accepted sense of that term.

The Manual has been divided into the following nine parts:

- Part 1—Planning
- Part 2—Properties of Steel
- Part 3—Forms of Construction
- Part 4—Connections
- Part 5—Protection of Steel from Corrosion
- Part 6—Fire Protection
- Part 7—Design
- Part 8—Fabrication
- Part 9—Erection.

In the initial stages each part will be produced under a separate cover; it is intended that at a later date all parts will be published in one or more bound volumes. The committee will from time to time review the various parts of the Manual and make any necessary amendments in the light of current knowledge and practice. In this connection, the committee would welcome suggestions and constructive criticism from all who have occasion to use the Manual.

Each part of the Manual has been drafted by a sub-committee responsible to the main committee under the chairmanship of Professor J. W. Roderick, Professor of Civil Engineering, University of Sydney, who was also chairman of the committee which prepared AS CA1. The other members of the Manual Committee are as follows:

H. H. Brown	Bates, Smart & McCutcheon
Professor F. B. Bull	University of Adelaide
I. G. Cameron	Cameron & McNamara
W. C. Farrar	Johns & Waygood Limited
I. J. Ferris	Defence Standards Laboratories
Dr G. B. Hill	G. B. Hill & Partners
D. V. Isaacs M.B.E.	Commonwealth Experimental Building Station*
F. M. Mathews	Australian Iron & Steel Pty Ltd†
J. M. McKenzie	Australian Iron & Steel Pty Ltd
R. J. McWilliam	R. J. McWilliam & Partners
J. E. Parker	Public Works Department of W.A.
J. Rankine	Rankine & Hill
L. G. Rowe	Perry Engineering Co. Ltd
J. P. Shields	Drysdale & Ridgway Pty Limited
C. Stuart	Sydney Steel Company Pty Limited
H. G. Wolfram	Gutteridge, Haskins & Davey
A. R. Wylie	The Broken Hill Proprietary Co. Ltd
B. R. Longfoot	The Broken Hill Proprietary Co. Ltd (Technical Secretary)

*Until September 1969

†Until June 1968

Sydney

July 1971

Acknowledgments

The Australian Institute of Steel Construction wishes to thank all those who have taken part in the task of the preparation of the Manual and those who have contributed through comment during its preparation.

The Institute is deeply indebted to The Broken Hill Proprietary Co. Limited and Australian Iron and Steel Pty Limited, for their assistance and for their support during the organization of the committee and throughout the preparation of the Manual.

The Institute is also indebted to the Standards Association of Australia for editing and publishing the Manual.

STEEL STRUCTURES

Part 3

**FORMS OF
CONSTRUCTION**

(vii)

Fig. 3.53: PIPE-SUPPORTED
ELEVATED SPHERICAL TANK
(WARRNAMBOOL VIC)

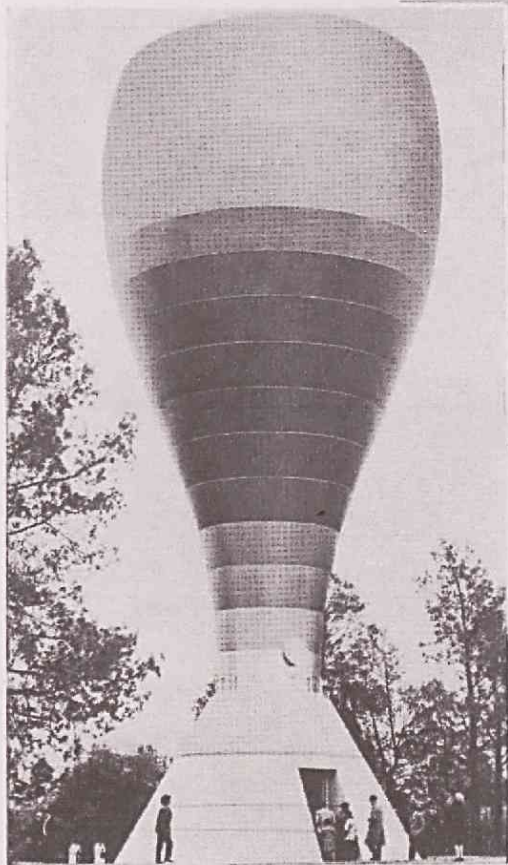
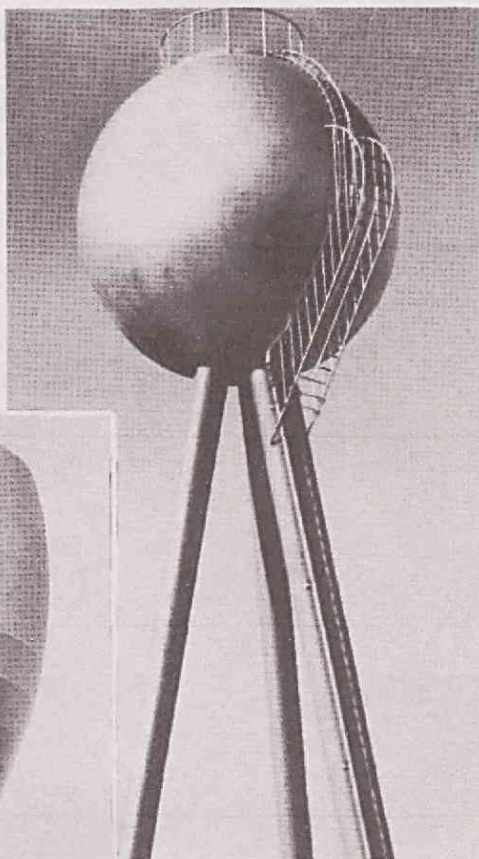
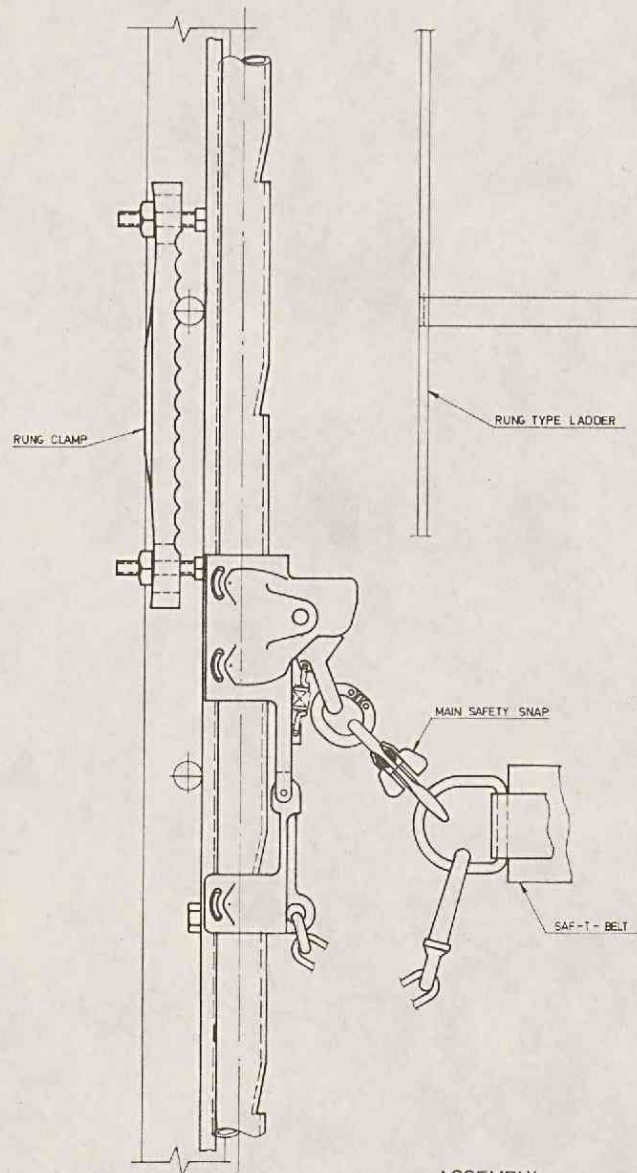
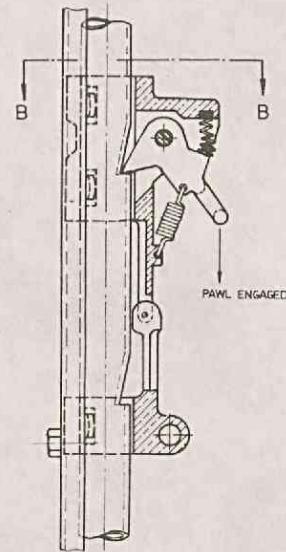
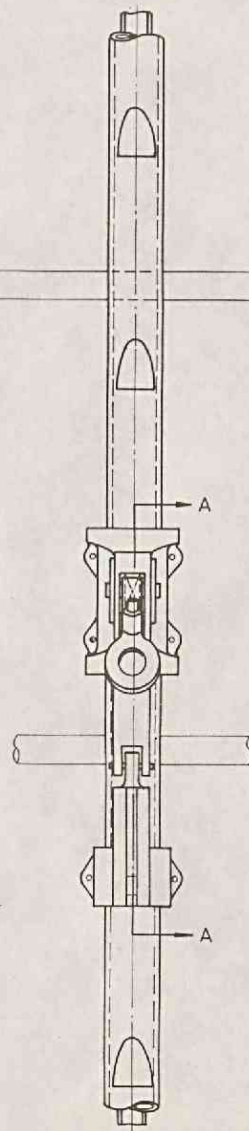


Fig. 3.54: SHAPED
ELEVATED TANK
(COLEAMBALLY NSW)

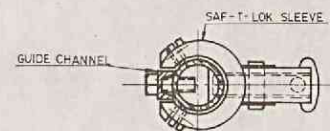
SAF-T-CLIMB DRG. D263C 28-08-65



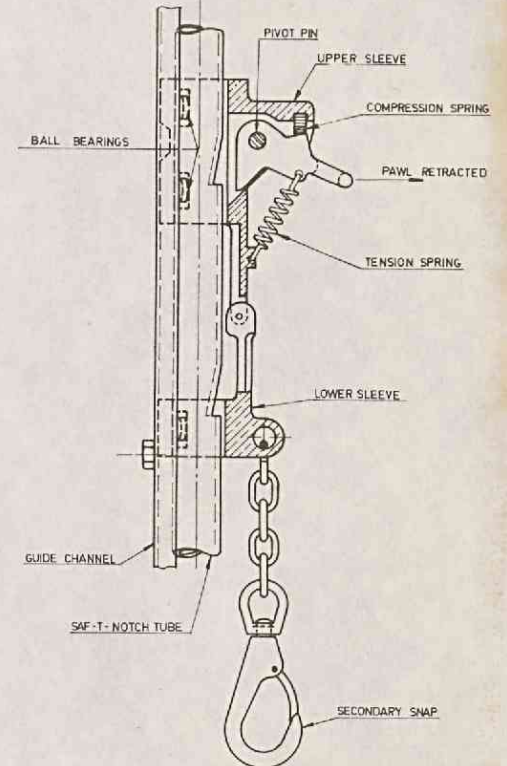
ASSEMBLY



SECTION A-A
SAF-T-LOK SLEEVE WITH
LOCKING PAWL ENGAGED.



SECTION B-B



SECTION A-A
SAF-T-LOK SLEEVE WITH
LOCKING PAWL RETRACTED.

0380

G.K.N. BUILDING AND ENGINEERING

MILLS SCAFFOLDS H O TELEPHONE:

SAF-T-CLIMB
ASSEMBLY OF SAF-T-LOK SLEEVE
AND SAF-T-NOTCH RAIL

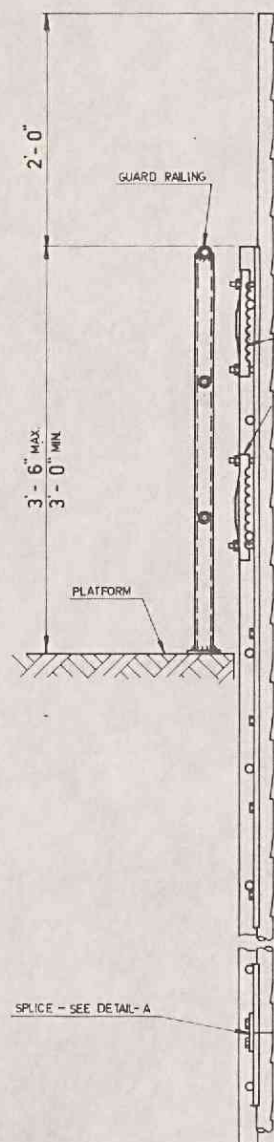
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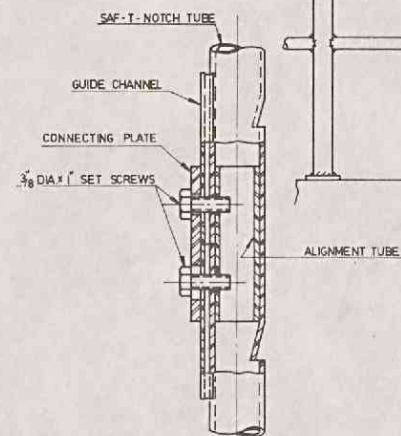
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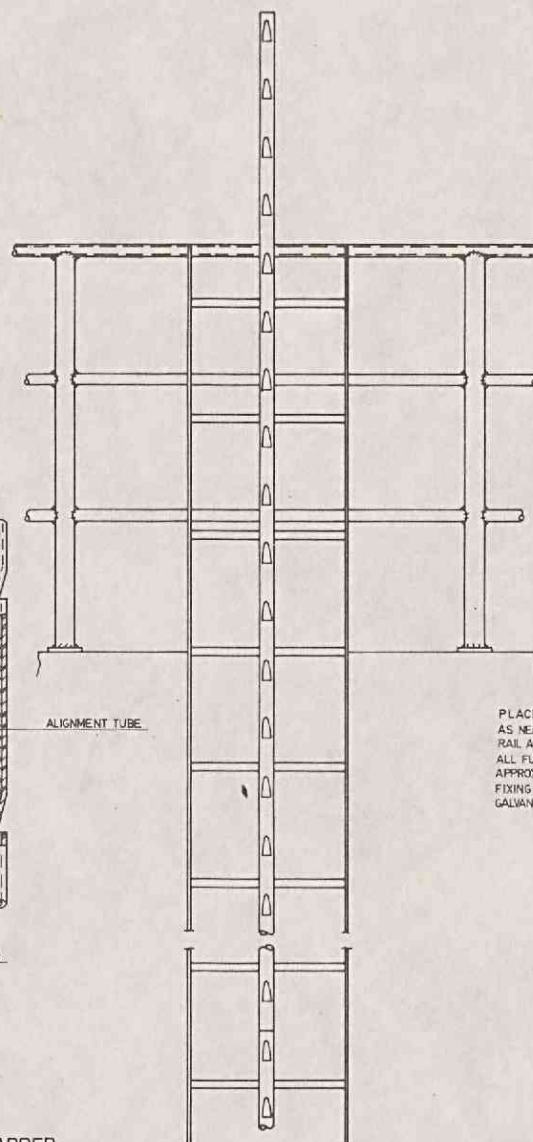
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TOP TERMINATION OF LADDER.
TYPICAL FOR LANDING PLATFORM PROVIDED
WITH GUARD RAILING.

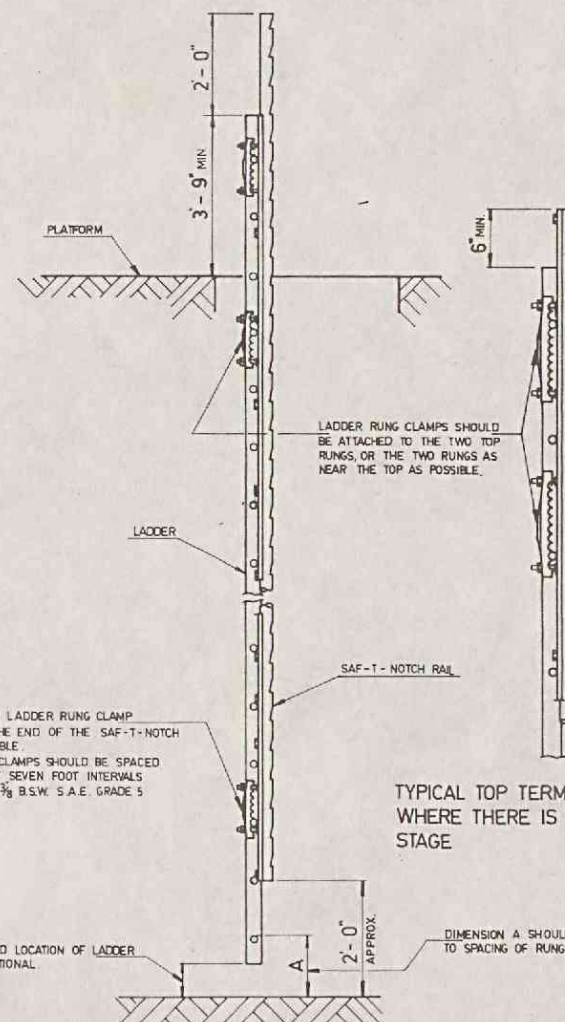


DETAIL - A



PLACE FIRST LADDER RUNG CLAMP
AS NEAR TO THE END OF THE SAF-T-NOTCH
RAIL AS POSSIBLE.
ALL FURTHER CLAMPS SHOULD BE SPACED
APPROXIMATELY SEVEN FOOT INTERVALS
FIXING STUDS $\frac{3}{8}$ B.S.W. S.A.E. GRADE 5
GALVANIZED.

TOP TERMINATION OF LADDER.
TYPICAL FOR LANDING PLATFORM OR STAGE.



TYPICAL TOP TERMINATION OF LADDER
WHERE THERE IS NO PLATFORM OR
STAGE

BOTTOM TERMINATION OF LADDER.
TYPICAL FOR GROUND OR PLATFORM.

G.K.N. BUILDING AND ENGINEERING
MILLS SCAFFOLDS H.O. TELEPHONE: 69654
SAF-T-CLIMB
METHOD OF FIXING RAIL TO LADDERS

REV.	BY	DATE	PARTICULARS	CYD

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MILLS

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ADDRESS ALL MAIL TO:

BOX 73, P.O.
PORT MELBOURNE

01-08-66 GKN to City

G.K.N. BUILDING AND ENGINEERING

A DIVISION OF GUEST, KEEN & NETTLEFOLDS (AUST.) PTY. LIMITED
(INCORPORATED IN NEW SOUTH WALES)

78 BAY STREET
PORT MELBOURNE
VICTORIA

ENGR
W'BOOL.

TELEGRAMS AND CABLES
"MILLSCAFF" MELBOURNE

TELEPHONE:
64 3421

JRT:NS
REF: SME3160

1st August, 1966.

Copy - Mr. R. Jones ✓

Mr. E. Johnson,
City Engineer,
WARRNAMBOOL. VIC.

Dear Sir,

We have today discussed with Mr. Fahey, of the Department of Labour & Industry, the proposed installation of Saf-T-Climb on the water tower at Fletcher Jones & Staff Pty. Ltd.

This proposal, on the basis of the designs by Mr. Ralph Jones, is being examined by Mr. Fahey's department and we should receive advice from them within two or three days.

From our discussions this morning, we believe that the Department will indicate their approval for the use of Saf-T-Climb in this particular application provided that you are satisfied and may therefore, in effect, refer the final decision to you as Local Authority.

There are no specific regulations concerning this equipment, but we anticipate that

2/

1st August, 1966.

the Department of Labour & Industry will take the course outlined and, under the circumstances, we do not see any problems in respect to its use either by Fletcher Jones or yourself.

Yours faithfully,
G.K.N. BUILDING AND ENGINEERING

J.R. Thompson.
(J. R. Thompson)
AREA MANAGER
VICTORIA.



ADDRESS ALL MAIL TO:

BOX 73, P.O.
PORT MELBOURNE

01-08-66 GKN to D.L.I.

G.K.N. BUILDING AND ENGINEERING

A DIVISION OF GUEST, KEEN & NETTLEFOLDS (AUST.) PTY. LIMITED
(INCORPORATED IN NEW SOUTH WALES).

78 BAY STREET
PORT MELBOURNE
VICTORIA

TELEPHONE:
64 3421

TELEGRAMS AND CABLES
"MILLSCAFF" MELBOURNE

Copy - Mr. Jones ✓

JRT:NS

REF: SME3160

1st August, 1966.

The Department of Labour & Industry,
110 Exhibition Street,
MELBOURNE. C.I.

Dear Sirs,

SAF-T-CLIMB INSTALLATION
FLETCHER JONES & STAFF PTY. LTD.
WARRNAMBOOL

We attach details of a proposed Safety Climb Installation to be incorporated with a water tower at the premises of Fletcher Jones & Staff Pty. Ltd., Warrnambool.

This installation is to give safety during access to the tank for inspection purposes and due to the design of the tank, we consider that the Saf-T-Climb installation is more practical than an arrangement using Ladder Caging.

It is intended that the climbers' safety belt and sleeve will be transferred between Saf-T-Climb Rails.

Access to the base will be by portable ladder so that unauthorised personnel cannot gain ready access to the base of the ladder.

We have discussed this proposal with Mr. E. Johnson, City Engineer of Warrnambool, who has no objections to the use of this equipment.

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1st August, 1966.

You will also appreciate that the proposed installation will be in accord with the design of the tank which will be aesthetically pleasing.

Your consideration of our request would be appreciated.

Yours faithfully,
G.K.N. BUILDING AND ENGINEERING

JR Thompson.

(J. R. Thompson)
AREA MANAGER
VICTORIA.