

SPC-81

SM-85-11
SL-100-981
SL-100-SPC

OTTAWA, November 17, 1970.

SPECIAL APPROVAL

Granted to: Canadian Industrial Oil and Gas Company,
640-8th Ave. S.W.,
Calgary, Alta.

Subject: Rockwell Type I Temperature
incorporating correction for Supercompressibility
Factor at line pressure.

Special Approval has been granted by the Standards Branch
to Canadian Industrial Oil and Gas Company for the use of the
following equipment in the measurement of gas to the Calgary Power
Mabunan Plant:

Rockwell Type I Temperature Serial #B7166

This instrument has been designed and calibrated for an
average atmospheric pressure of 13.5 psia, a base pressure of 14.65
psia, a pressure range of 0-500 psig and a Temperature Range of -20°F
to +130°F. It is to be mounted on a Rockwell Type T-60 Series 3
Turbo Meter rated 720 psi and having 1000 root circle.

The instrument corrects for supercompressibility. The factor
is based on 0.622 specific gravity gas at 60°F.* The correction
varies with pressure as follows:

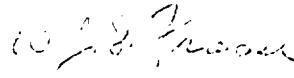
<u>Pressure</u>	<u>Calibration Correction Factor (K₁)²</u>
100 psig	1.0165
200 "	1.0333
300 "	1.0505
400 "	1.0685
500 "	1.0866

* Total heating value of 1054.0 B.T.U. (sat) per cu. ft.
and the Mol fraction nitrogen content 0.01649.

The working conditions are stated to be:

Temperature Range	+30°F to +50°F
Line Pressure	400 psig
Flow Rate	26 MCFD (Max) 3MCFD (Min)

This approval supercedes SPQ-31, September 8, 1969 which is thus cancelled.



W.J.S. Fraser,
Chief,
Electricity and Gas Division.

c.c. Rockwell Mfg, Company of Canada Ltd.

Mr. A. Park, D.I. of Calgary E&G
Mr. J. M. Taylor, D.I. of Edmonton E&G
Mr. R. H. McKay, Regional Manager, Winnipeg
Mr. W. R. McEwan, Regional Supervisor E&G, Toronto

