SPE-0171

SPE-171

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OTTAWA, February 19/70

SPECIAL APPROVAL

Granted to: Canadian ASEA Electric Limited,
3350 American Drive,
Malton, Ontario.

Subject: Six Only A.S.E.A. Type "CUFA 220" Voltage Transformers, 138000-151800 primary volts 69-69 secondary volts 60 hz ratios 2000-1 and 2200-1, serial numbers 6167183, -184, -185, -186, -187 and -188

Attention: Mr. J. G. Reid, P. Eng.,
Power Department

Special Approval has been granted by the Standards Branch for use in Canada for billing purposes, to the above-named apparatus.

These transformers are capacitor type with the capacitors stacked vertically and insulated from each other by means of porcelain insulators. The entire assembly is mounted on a metal housing containing the intermediate voltage transformer with its primary and secondary windings.

This special approval is valid only when each intermediate voltage transformer is associated with the following capacitors and their arrangement as given in the attached drawings:

serial 6167183 capacitors 8.204/1, 8.204/2, 8.204/3, 8.204/4, 8.204/5, 8.204/6, 8.204/7, 8.204/8, 8.204/9, 8.204/10 Rack No 20. Drawing K49831486 No. 1

serial 6167184, capacitors 8.204/11, 8.204/12, 8.204/13, 8.204/14, 8.204/15, 8.204/16, 8.204/17, 8.204/18, 8.204/19, 8.204/20 Rack No 21. Drawing K49831486 No.2

serial 6167183, capacitors C.204/21, C.204/22, C.204/23, C.204/24, C.204/26, C.204/27, C.204/28, C.204/29, C.204/30, C.204/32
Rack No 22. Drawing K49831466 No. 3

serial 6167186, capacitors C.204/25, C.204/31, C.204/33, C.204/34, C.204/35, C.204/35, C.204/37, C.204/38, C.204/39, C.204/60
Rack No 23. Drawing K49831466 No. 4

serial 6167187, capacitors C.204/40, C.204/41, C.204/43, C.204/44, C.204/45, C.204/46, C.204/47, C.204/48, C.204/49, C.204/42
Rack No 24. Drawing K49831466 No. 5

serial 6167188 capacitors, C.204/50, C.204/51, C.204/52, C.203/139, C.204/141, C.204/55, C.204/56, C.204/57, C.204/58, C.204/59
Rack 25 Drawing K49831486 No 6.

The capacitors in the stacks are type CTUA 1/220 rated at 25.3/√3 kv.

The intermediate voltage transformers are type ECCD 24A with serial numbers listed at the beginning of this letter.

These intermediate voltage transformers are rated at 13.8-15.18kv; each has two identical untapped secondary windings producing 69 volts with rated primary volts.

Each transformer has two nominal ratios, 2000-1 and 2200-1 and the change from one to the other is made by means of taps at an oil-immersed terminal block behind a removable cover. The position of the tap cannot be ascertained without removing this cover.

Each transformer has trimming windings with connections to a terminal block for adjustment on the opposite side to the secondary terminals.

This approval is valid only for the following connections at the adjustment terminals:-

serial 6167183 B9-B8-B5, B6-B4, B3-B2, B1-H2
serial 6167184 B9-B8-B6-B3, B4-B1, B2-H2
serial 6167185 B9-B8-B5, B6-B4, B3-B2, B1-H2
serial 6167186 B9-B8-B6-B4-B1, B2-H2
serial 6167187 B9-B8-B5, B6-B4-B2, B1-H2
serial 6167188 B9-B6-B5, B6-B4-B2, B1-H2

These connections are valid for both of the ratios.

Transformers with serial numbers 6167184 and 6167185 are equipped with carrier boxes serial 6164734 and 6164730 respectively.

Placing the carrier drain coil in or out of the circuit does not require changing the connections and it does not have any effect on the accuracy rating.

Each transformer has two identical secondary windings with terminals marked X1, X2 and Y1,Y2 respectively.

"X1" and "Y1" have the same polarity as "H1" on the top of the top of the capacitor stack.

The accuracy rating of these transformers is 0.6/ZYZ on either secondary with the other secondary unloaded and 0.6/0.6Z with both secondaries loaded with "Z" burden.

The nameplates are marked 0.6Z/0.6Z.

These transformers are for use by Ontario Hydro at the Mississagi Transformer Station.

A.J.C. Fraser,
Chief,
Electricity and Gas Division,
Standards Branch.

c.c. W. R. McKown, E.I. of I.&C., Toronto
Ontario Hydro (through Mr. W. R. McKown)
Mr. J. W. Hokesh, Regional Manager, Toronto