INTERPRETATION IC 90.1-1989-17 OF
ASHRAE/IES 90.1-1989
ENERGY EFFICIENT DESIGN OF NEW BUILDINGS
EXCEPT LOW-RISE RESIDENTIAL BUILDINGS

March 8, 1994

Request from: Mr. Tony Leung, Sarangi and Rodger Consultants Ltd, #210, 4240 Manor St, Burnaby, B.C. Canada V5G 3X5.

Reference. This request refers to ASHRAE/IESNA Standard 90.1-1989, Table 9-1, Minimum Pipe Insulation, Footnote c.

Background. Footnote c to Table 9-1 reads:

"c. Applies to recirculating sections of service or domestic hot water systems and the first 8 ft from storage tank for non-circulating systems."

Mr. Leung's letter states in part:

"A typical recirculating domestic hot water system includes three interconnected piping sections: (a) the recirculating riser piping from the hot water source, (b) connecting non-recirculated run-out piping to the living suites, and (c) in-suite hot water piping to the plumbing fixtures."

SRC Interpretation. SRC Ltd interprets Footnote c to mean that, of the sections of domestic and service hot water distribution systems identified above, the following must be insulated in accordance with Table 9-1 in order to comply with Standard 90.1-1989: Section (a) and the first 8 ft of (b), but not (c).

Question. Is the SRC interpretation correct?

Answer. SRC's interpretation is partially correct. The intent of the standard is to require insulation for piping section (a) but not for sections (b) or (c).

Comment. Subsection 11.4.3.2 of the standard clarifies the requirements for non-recirculating systems to be: "The first 8 ft. of outlet piping from a storage system that is maintained at a constant temperature and the inlet pipe between the storage tank and a heat trap shall be insulated as provided in Table 9-1 or to equivalent level as calculated in accordance with Eq 9-1." Piping section (b) in the interpretation is not considered storage and therefore is not required to be insulated.