

## Appendix A: Indoor Air Quality Standards and Legislation

**For temperature, relative humidity and carbon dioxide concentration.**

A general recommendation from the Canadian Centre for Occupational Health and Safety (CCOHS) is that the temperature be held constant. In summertime when outdoor temperatures are higher it is advisable to keep air-conditioned offices slightly warmer to minimize the temperature discrepancy between indoors and outdoors.

### **CSA Standard CAN/CSA Z412-17 - “Office Ergonomics”**

The CSA Standard CAN/CSA Z412-17 below gives acceptable ranges of temperature and relative humidity for offices in Canada. These values are the same as recommended by the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) Standard 55-2013. The recommended temperature ranges have found to meet the needs of at least 80% of individuals. Some people may feel uncomfortable even if these values are met.

| <b>Temperature/Humidity Ranges for Thermal Comfort</b> |   |   |
|--|---|---|
| <b>Conditions</b>                                      | <b>Relative Humidity</b>                          | <b>Acceptable Temperatures (°C)</b>           |
| Summer   | Range of 20 to 70%<br><br>Average 50% recommended | Optimum of 22<br>Acceptable range (20 – 23.5) |
| Winter   |   | Optimum 24.5<br>Acceptable range (23 – 26)    |

Source: Adapted from CSA based on Table 3 of ASHRAE 55-2013, at 50% relative humidity and average air speed of <0.15 m/s.

Ministry of Labour, Training and Skills Development (MLTSD) minimum temperature for an enclosed workplace: 18°C (refer to O. Reg. 851 - Industrial Establishments, Sec.129 for full description).

| <b>Indoor Air Parameter/Contaminants</b> | <b>Guideline</b>  |
|--|---|
| Carbon Dioxide                           | Concentration exceeding 1000 parts per million indicates inadequate fresh air supply. |