



Thermal Comfort and Air Quality in the Workplace

As we move further into autumn and the colder weather begins, the NSTU wants to make sure its members understand the occupational health and safety rules around comfortable temperatures and proper ventilation in the workplace.

Heating

Nova Scotia’s Occupational Health and Safety Act and Regulations do not define acceptable workplace temperatures. The Act does say that an employer must “take every precaution that is reasonable in the circumstances to ensure the health and safety of persons at or near the workplace.” This includes making sure employees work in a comfortable temperature.

The Canadian Centre for Occupational Health and Safety has set guidelines for thermal comfort. “Thermal comfort” refers to the temperature, humidity level, and air movement where most employees will feel comfortable, wearing normal clothes. The Centre recommends that temperatures should be in the range of 21° to 23°C (69 to 73°F). This assumes that the air is not blowing and that the humidity is kept at about 50 per cent. This is considered the “comfort zone” where most people will not feel too warm or too cool.

The Canadian Standards Association publication on “Office Ergonomics” also defines parameters for thermal comfort. Acceptable temperatures are lower in winter, when employees wear warmer clothing.

<i>Temperature/Humidity Ranges for Comfort</i>			
<i>Conditions</i>	<i>Relative Humidity</i>	<i>Acceptable Operating Temperatures</i>	
		<i>°C</i>	<i>°F</i>
<i>Summer (light clothing)</i>	<i>If 30%, then</i>	<i>24.5 - 28</i>	<i>76 - 82</i>
	<i>If 60%, then</i>	<i>23 - 25.5</i>	<i>74 - 78</i>
<i>Winter (warm clothing)</i>	<i>If, 30%, then</i>	<i>20.5 - 25.5</i>	<i>69 - 78</i>
	<i>If 60%, then</i>	<i>20 - 24</i>	<i>68 - 75</i>

This range is expected to be acceptable for 80 per cent of workers. Since individuals may react to temperatures differently, an employer or employee may need to take additional steps to ensure a comfortable workplace. This may include wearing additional clothing or using space heaters, if permitted.

Ventilation

Nova Scotia’s Occupational Safety General Regulations set standards for proper ventilation in the workplace.

An employer must provide for a fresh, outdoor air supply into a workplace and the removal of air from the workplace.

The ventilation system must keep the air “reasonably pure” and “render harmless all gases, vapours, dust or other impurities that are likely to endanger the health or safety of any person therein.”

Air purity can be affected when toxins from idling vehicles or cigarette smoke enter the building through outdoor vents. Employers should be careful to ensure that such hazards are not permitted near air vents.

If you are concerned about air quality or the temperature in your workplace, please contact your NSTU representative on your Joint Occupational Health and Safety Committee.

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