691. Sustainability & Climate Action - Climate Risk & Adaptation - Overheating & Thermal Comfort Service & Inspection

Category:	Sustainability & Climate Action
Subcategory:	Climate Risk & Adaptation
Status:	**Best Practice**
Type:	Approved Contractor
Priority:	Recommended
Commonality:	Occasional

Note: This document provides guidance to support compliance but is not a substitute for professional advice.

Why This Task Matters

Your oversight of professional thermal comfort assessments ensures pupils and staff learn in healthy, comfortable environments that support wellbeing and academic performance. By arranging expert evaluation of overheating risks, you demonstrate commitment to creating optimal learning conditions, protect vulnerable individuals from heat-related health issues, and build confidence in the organisation's responsibility for maintaining safe, comfortable educational spaces that prioritise both health and learning excellence.

Task Summary

Best Practice: This task requires an approved contractor to carry out an annual overheating and thermal comfort assessment, measuring classroom conditions against guidance thresholds. The inspection should include detailed temperature monitoring, assessment of ventilation systems, evaluation of building fabric performance, and analysis of solar gain factors. Contractors should use appropriate monitoring equipment to measure conditions during occupied hours and identify areas where temperatures exceed recommended thresholds. The assessment should consider both summer overheating and winter thermal comfort, evaluating the effectiveness of existing cooling and heating

systems. Results should include detailed findings, prioritised recommendations for improvements, and compliance with DfE building performance standards. This professional assessment supports pupil comfort, health, and learning while ensuring compliance with thermal comfort guidance.

Relevant Legislation & Guidance

- **Building Regulations 2010 (Part L)**: Sets standards for thermal comfort and overheating prevention.
- **DfE Building Bulletin 101: Ventilation of School Buildings**: Provides guidance on thermal comfort and ventilation requirements.
- **Health and Safety at Work Act 1974**: Requires provision of safe working environments including thermal comfort.
- **Equality Act 2010**: Ensures thermal comfort for all users including those with specific needs.
- **CIBSE Guide A: Environmental Design**: Provides detailed guidance on thermal comfort assessment and standards.

Typical Frequency

This task should be completed yearly, ideally during summer months to assess peak overheating conditions. The frequency could vary based on building age, previous findings, or if overheating complaints increase. In education settings, annual assessments provide assurance that classrooms remain within acceptable temperature ranges throughout the year.

Applicability

This task is recommended and occasional, applying to schools and colleges where overheating may be a concern. It is particularly relevant for buildings with large glazed areas, limited shading, or poor ventilation, though all educational establishments can benefit from professional thermal comfort assessment. The task applies more frequently to older buildings or those in warmer climates, but should be considered for any establishment wanting to ensure optimal learning conditions.

Responsible Persons

- **Task Type**: This is an Approved Contractor task requiring specialist knowledge and equipment for thermal comfort assessment.

- **Contractor Requirements**: The contractor should be qualified building services engineers or thermal comfort specialists with appropriate accreditations such as CIBSE membership. Cost estimates typically range from £800-£2,500 depending on building size and complexity.

- **In-House Requirements**: Not applicable as this is an Approved Contractor task.
- **Permit to Work**: A permit to work may be required if the assessment involves accessing restricted areas or adjusting building systems.
- **Delivery Model**: This task is normally contractor-delivered in most schools and colleges due to the specialist equipment and expertise required.

Key Considerations

Important factors include timing assessments during occupied periods, ensuring access to all classroom areas, and coordinating with school activities to minimise disruption. Consider the impact of different teaching activities on thermal comfort requirements. The assessment should not cause significant disruption if properly planned. Risk assessment should consider health and safety implications of temperature monitoring and potential system adjustments.

Task Instructions

Prerequisites & Safety

- Ensure contractor has appropriate qualifications and insurance
- Arrange access to all occupied areas during normal hours
- Coordinate with teaching schedules to avoid disruption
- Confirm permit requirements for system access

Tools & Materials

- Thermal comfort monitoring equipment
- Temperature and humidity data loggers
- Building plans and system documentation
- Solar gain analysis tools
- Ventilation measurement instruments

Method (Step-by-Step)

1. **Planning and Access**: Arrange site access and coordinate monitoring schedule with school operations.
2. **Temperature Monitoring**: Install data loggers to record conditions over occupied periods.

3. **System Assessment**: Evaluate heating, ventilation, and cooling systems performance.
4. **Building Fabric Review**: Assess insulation, glazing, and shading effectiveness.
5. **Thermal Analysis**: Analyse data against comfort standards and identify problem areas.
6. **Recommendations**: Develop prioritised recommendations for thermal comfort improvements.

Measurements & Acceptance Criteria

Temperature measurements should follow CIBSE or DfE guidelines with clear thresholds for acceptable conditions. Assessment should identify areas exceeding recommended temperature ranges during occupied hours.

If Results Fail

Follow instructions on the Compliance Pod task completion form to record remedial/follow up actions and generate Reactive Task Tickets as required. If critical overheating issues are identified, immediate actions should include implementing temporary cooling measures and arranging urgent system repairs.

Reinstatement & Housekeeping

No reinstatement required. Ensure monitoring equipment is removed and areas left tidy.

Completion Checks

Confirm that comprehensive assessment has been completed, report received, and all evidence uploaded to Compliance Pod.

Client Oversight Checklist (Before the Visit)

- Scope covers all occupied areas and different building orientations
- Contractor has access to building plans and system specifications
- Monitoring equipment is appropriate for educational environments
- Assessment methodology follows established thermal comfort standards
- Access arrangements made for all areas including plant rooms

Client Oversight Checklist (During the Visit)

- Contractor monitors conditions during actual occupied hours
- Data collection covers peak temperature periods

- Ventilation systems are properly assessed
- Photographic evidence captured of key areas
- Safety procedures followed throughout assessment

Deliverables & Acceptance Criteria (After the Visit)

- Comprehensive thermal comfort survey report
- Detailed temperature monitoring data and analysis
- Prioritised recommendations with cost-benefit analysis
- Compliance assessment against relevant standards
- Review report for completeness and technical accuracy

Defects & Follow-up

Follow instructions on the Compliance Pod task completion form to record remedial/follow up actions and generate Reactive Task Tickets as required. Agree priorities and timescales for implementing thermal comfort improvements, and schedule any immediate remedial work.

Reinstatement & Sign-off

Confirm systems returned to service, complete on-site sign-off, and upload evidence to Compliance Pod.

Record-Keeping & Evidence

- **Upload Process**: Upload any required statutory or supporting evidence to the corresponding task form in Compliance Pod.
- **Statutory Evidence**: No statutory evidence is required for this task.
- **Supporting/Good Practice Evidence**: Contractor survey report, temperature logs, and remedial recommendations.

Common Pitfalls & Best Practice Tips

Common mistakes include scheduling assessments outside occupied hours, failing to consider all building orientations, or not acting on critical findings. Best practices include coordinating with curriculum delivery, providing historical temperature data, and implementing low-cost recommendations immediately. In educational settings, consider the impact of different room uses on comfort requirements. Warning signs include frequent overheating complaints or inconsistent temperature control across similar spaces.

Quick Reference Checklist

- [ ] Verify contractor qualifications and arrange access
- [ ] Provide building documentation and usage patterns
- [ ] Coordinate timing with occupied periods
- [ ] Review thermal comfort report upon completion
- [ ] Implement prioritised recommendations
- [ ] Monitor improvements in subsequent terms
- [ ] Upload evidence to Compliance Pod

Grouped Tasks

Grouping is feasible; align with related tasks of the same frequency and contractor visit.

Related Tasks

- Sustainability & Climate Action - Carbon, Energy & Resources - Energy Efficiency Service & Inspection
- Sustainability & Climate Action - Climate Risk & Adaptation - Overheating & Thermal Comfort Visual Check
- Sustainability & Climate Action - Climate Risk & Adaptation - Climate Risk & Adaptation Audit

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