

## FCP Cooking and Warming Module: Topics, Learning Outcomes, Benefits and Delivery Methods

### Section 1 – Scope and Application

Scope	Learning outcome	Benefits	Slides	Delivery method
<b>Key professional food service cooking and warming equipment, their applications and selection criteria.</b>	Understand the various key professional food service cooking and warming products, including their specifications, intended applications, and selection criteria, such as appropriate sizing, durability, energy efficiency and features.	Participants will be equipped with the foundations to make sustainable and energy-efficient choices, alongside the broad pressures applying to the selection and application of cooking and warming equipment, as well as gain context for the rest of the course.	4-25	Section 1. Recorded slides to watch at delegates own pace

### Section 2 – How it Works

Scope	Learning outcome	Benefits	Slides	Delivery method
<b>Key principles of cooking and warming</b>	Understand the essential principles of heating	Participants will understand how commercial cooking and warming equipment works in order to design, apply, use and maintain equipment effectively, thereby keeping its energy consumption and emissions to a minimum.	4-36	Section 2. Recorded slides to watch at delegates own pace
<b>Key components in cooking and warming systems</b>	Identify and describe the functions of the major components in cooking and warming equipment.	Participants will be able to discuss the importance of each component in maintaining the efficiency and performance of the system, while reducing carbon emissions.		

### Section 3: Legislation and Regulation

Scope	Learning outcome	Benefits	Slides	Delivery method
<b>Ventilation for cooking and warming equipment</b>	Understand how the HSE SR27, CAIS10, DW172 and TR19 Grease apply to cooking and warming equipment.	Gain the ability to ensure compliance with ventilation standards, leading to reduced operational costs and enhanced environmental responsibility.	4-13	Section 3. Recorded slides to watch at delegates own pace
<b>Regulation relating to gas consumption</b>	Develop a solid background in gas regulation such as IGEM UP19/A, gas safety, unsafe situations and the gas safe register relating to cooking and warming equipment usage.	Stay ahead in the industry by understanding gas regulation, ensuring compliance for your organisation.	14-25	
<b>Water regulations compliance</b>	Understand various water regulations such as the water supply regulations 1999 and legionella control, and the practical actions that need to be taken to comply.	Acquire knowledge of critical compliance measures to avoid legal penalties.	26-30	
<b>Understanding electrical regulations for cooking and warming equipment</b>	Understand the electricity at work regulations, electromagnetic compatibility regulations and designated standards for low voltage appliances.	Develop the expertise to accurately interpret and utilise electrical regulation, enabling informed decision-making and improved compliance.	31-35	
<b>Other environmental legislation affecting cooking and warming equipment</b>	Understand other broad environmental regulation such as RoHS, SCIP, UKREACH, COSHH, the measurement and disclosure of energy consumption and other sustainability reporting requirements	Enhance your ability to navigate complex regulatory landscapes, ensuring comprehensive compliance and supporting your company's commitment to sustainability and corporate social responsibility. Provide authoritative advice to clients, partners and colleagues about the broad regulatory	36-45	

		landscape of energy and carbon related regulations for refrigeration.		
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## Section 4: Lifetime Emissions

Scope	Learning outcome	Benefits	Slides	Delivery method
<p style="text-align: center;"><b>Lifetime emissions of foodservice cooking and warming equipment</b></p>	<p>Gain comprehensive knowledge of the total carbon emissions associated with foodservice cooking and warming equipment throughout its entire lifecycle, from production to disposal.</p> <p>Appreciate the emissions from foodservice cooking and warming equipment in the context of the UK's total carbon emissions.</p>	<p>Equip yourself with the knowledge to identify and select cooking and warming systems with lower lifetime carbon, enabling you to make environmentally responsible design and/or purchasing decisions that enhance your organisation's sustainability credentials and potentially reduce long-term costs.</p>	<p style="text-align: center;">4-9</p>	<p style="text-align: center;">Section 4a. Recorded slides to watch at delegates own pace</p>
<p style="text-align: center;"><b>Embodied carbon of cooking and warming equipment</b></p>	<p>Develop an understanding of reducing the carbon footprint embedded in the materials and manufacturing processes of cooking and warming equipment.</p>	<p>With appreciation of the carbon emissions within the supply chain, from raw material extraction, processing, assembly and packaging, you can better implement energy efficiency, renewables and heat recovery in manufacturing to reduce the embodied emissions in your products.</p>	<p style="text-align: center;">10-13</p>	
<p style="text-align: center;"><b>Design for low carbon</b></p>	<p>Learn how to evaluate and implement design strategies that minimise the carbon footprint of cooking and warming equipment, emphasising sustainable and efficient technologies.</p>	<p>Grasping the principles and available options relating to selection, design and installation of cooking and warming equipment and linking them to reducing carbon emissions can develop solutions that assist the end user in minimising energy use, costs and emissions.</p>	<p style="text-align: center;">14, 19-30</p>	
<p style="text-align: center;"><b>Transport and distribution</b></p>	<p>Understand the environmental impact of transportation and distribution processes for</p>	<p>Acquire the knowledge to optimise transportation and distribution processes for cooking and warming equipment, enabling your</p>	<p style="text-align: center;">15-18</p>	

	cooking and warming equipment and identify methods to reduce associated carbon emissions.	organisation to lower its logistics related carbon footprint, improve operational efficiency, and enhance its reputation for sustainability.		
<b>Reduction of energy and carbon in the use of cooking and warming equipment</b>	Understand the importance of training operators in best practice such as the importance of the correct use timers, sensors, doors, lids, zones etc. and effects of external influences on energy and carbon emissions in the use phase.	Take practical actions to ensure the cooking and warming equipment is used appropriately for energy and emissions reduction, and guard against incorrect use affecting the associated carbon emissions of a product.	31-40	
<b>Food safety and waste reduction</b>	Explore the relationship between effective cooking and warming equipment management and food safety, with a focus on reducing food waste and associated carbon emissions.	Understand how maintaining the correct temperatures, utilising appropriate HACCP functions and improved connectivity can reduce food waste in cooking and warming equipment and the associated carbon from waste to ensure performance & efficiency work together to improve sustainability in foodservice operations.	40	
<b>The importance of staff training</b>	Recognise the importance of staff training in best practice for the efficient use and maintenance of cooking and warming equipment, to ensure optimal performance and energy savings.	Understand the influence of operator and technician behaviours and utilise training in the reduction of energy and carbon from refrigeration.	41	
<b>Appropriate maintenance of cooking and warming equipment</b>	Understand the carbon footprint associated with maintenance activities and how these reduce the in-use and end of life emissions, and	Appreciation of the carbon footprint of maintenance activities such as travel to site, reactive verses planned activities and the embodied footprint of sundry items will help you to balance these factors to optimise	3-6	Section 4b. Recorded slides to watch at delegates own pace

	raise the asset value of cooking and warming equipment.	logistics planning and reduce overall emissions throughout the product's lifetime.		
<b>Innovation and development in cooking and warming technology</b>	Explore the latest innovations and developments in cooking and warming technology, and understand how these advancements can be integrated into current systems to improve efficiency and sustainability.	Delegates will stay ahead of industry trends, enabling them to implement cutting-edge technologies that enhance energy efficiency, reduce operational costs, and position their business as a leader in sustainable practices.	7-16	
<b>End of (first) life of cooking and warming equipment</b>	Understand end-of-life treatment and the waste hierarchy of cooking and warming equipment, focusing on responsible disposal, recycling, and recovery of materials to minimise environmental impact.	Delegates will gain the knowledge to implement effective end-of-life management strategies, ensuring compliance with environmental regulations, reducing waste, and maximising the recovery of valuable materials, ultimately enhancing their company's sustainability profile, and reducing long-term disposal costs.	17-23	
<b>Lifecycle costs</b>	Analyse the principles of lifecycle costing for refrigeration systems, including the assessment of initial purchase costs, operating expenses, maintenance costs, and end-of-life disposal costs to determine the total cost of ownership.	Delegates will be equipped with the skills to make informed purchasing decisions and/or recommendations by evaluating the true cost of refrigeration systems over their entire lifespan, leading to more cost-effective investments, improved budgeting, and enhanced financial planning, while also identifying opportunities for cost savings and efficiency improvements.	18-20	
<b>Case studies of whole lifetime emissions</b>	Examine case studies that illustrate the whole lifecycle carbon emissions of refrigeration systems, from	Delegates will gain practical insights into how theoretical concepts apply in real-world applications and impacts, enabling them to better	24-28	

	raw material extraction through to end-of-life disposal.	evaluate and implement effective strategies for reducing carbon emissions in their own projects and operations. This knowledge can lead to the provision of more authoritative advice to channel partners.		
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