Title of occupation
Mobile Transport Refrigeration Technician

UOS reference number
ST1327_V0.0

Core and options
No

Level of occupation
Level 3

Route
Engineering and manufacturing

Typical duration of apprenticeship
36 months

Target date for approval
No target date

Resubmission
No

Occupational profile
This occupation is found in...
the supply chain industry. The cold chain is a series of uninterrupted refrigerated production methods, storage and distribution activities, along with associated equipment and logistics, which maintain quality via a desired temperature range. It is used to preserve, to extend and ensure the shelf life of products such as meat, fresh agricultural produce, seafood, frozen food, chemicals, and pharmaceutical products as well some unusual products such as antiques and artwork.

The industry is crucial to the transportation and distribution of vaccines.

The broad purpose of the occupation is...
to install, service and repair transport refrigeration units (TRU) and associated equipment, found on vehicles such as HGV trucks, HGV trailers and home delivery vans. Technicians are highly skilled individuals, able to quickly diagnose faults and maintenance issues encountered with this complex and specialist equipment. The service provided must be of the highest level in order to protect and preserve the various loads the client is responsible for transporting. Professionalism and product knowledge are key skills the technician must possess in order to carry out the work effectively.

In their daily work, an employee in this occupation interacts with...
customers, their local service office, client security staff and other drivers. Technicians could be based in a depot or mobile, working from a van travelling to customer sites to carry out service and repairs. They can also be on-call, required to attend urgent breakdown calls to repair a client’s equipment so that they can complete their deliveries. A single loaded trailer can have hundreds of thousands of pounds worth of stock and repairs are often required to be carried out urgently to save the load. Because of the nature of the industry, these calls can come in 24 hours a day, 365 days a year.

An employee in this occupation will be responsible for...
their van, company equipment and stock that they carry. Maintaining stock is paramount and maintaining a complete stock of base level equipment ensures the required parts are instantly available.

Typical entry point to the apprenticeship
Employers will set their own entry requirements. Typically this will include holding a current UK driving licence.

Transferability
The Institute expects that being competent in the duties you have listed in this proposal will mean that an individual will be able to undertake the occupation in all relevant types of employer. Please outline the steps you have taken to ensure that this will be the case.

This proposal has been developed with small and large employers to ensure transferability across the industry.

Stand-alone occupation
Please confirm that the proposed apprenticeship relates to a stand-alone occupation and explain how it will fit in with any associated apprenticeship standards.

Initial conversations with the Refrigeration, Air Conditioning and Heat Pump Technician (RACHPT) trailblazer group to explore the possibility of including this role as an option in the existing standard. However, it is clear that the two roles are substantially different. Air conditioning is not the same as transport refrigeration: the products, technologies and skills required are completely different. The RACHPT apprenticeship covers the basic principles of refrigeration but does not address the significant other aspects of a transport refrigeration product – specifically diesel engines, DC electrical generation and supply, DC electronics, diagnostics of transport refrigeration systems and the unique refrigeration components that a TRU encompasses. It also does not specifically cover working with flexible piping systems that are used on many of the TRUs including sizing, material selection, and jointing systems. Nor does it cover the jointing of steel pipe by oxy-acetylene welding also required on some TRUs.

Heavy Vehicle Service & Maintenance Technician - this apprenticeship does cover one aspect of TRU in that the diesel engines which is an essential part of a refrigeration unit. However it is too far reaching into a heavy goods vehicle for a TRU engineer, the standard covers, chassis, drivelines, gearboxes, axles, brakes, wheels etc that a TRU does not have. A TRU is a self-powered unit that performs its tasks whilst mobile (this can be whilst running on the roads and whilst parked up at a customer RDC) up either via its diesel engine or through its electric motor. The TRU consists of an engine, a complicated refrigeration system and
Proposal to develop an apprenticeship standard
L3: Mobile Transport Refrigeration Technician (continued)

electronic system that runs via 3 phase and 12v DC circuitry all housed in a frame that is bolted onto the front of a vehicle – other than the engine none of these systems would be covered in the Heavy Vehicle Service & Maintenance Technician or the Autocare Technician standards.

Progression routes
No progression routes specified

Progression routes comments
Lead Engineer (L6)

Typical job titles
['Mobile Transport Refrigeration Technician'
'Mobile Refrigeration Engineer']

Does professional recognition exist for the occupation...
No
Duties

<table>
<thead>
<tr>
<th>Duty</th>
<th>OTJ training (days)</th>
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<tbody>
<tr>
<td>Conduct dynamic risk assessments before and throughout each job</td>
<td>10</td>
</tr>
<tr>
<td>Install Transport Refrigeration Units (TRUs) to a range of vehicles</td>
<td>45</td>
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<tr>
<td>Install Transport Refrigeration Units (TRUs) to a range of vehicles</td>
<td></td>
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<tr>
<td>including HGV trucks, trailers and home delivery vans</td>
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<tr>
<td>Commission new TRUs to ensure the unit tests correctly and pulls</td>
<td>20</td>
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<tr>
<td>the correct temperatures on diesel and electric</td>
<td></td>
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<tr>
<td>Inspect or service TRUs both in the depot and at the client's</td>
<td>45</td>
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<tr>
<td>premises</td>
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<tr>
<td>Fault-find and repair TRUs</td>
<td>45</td>
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<tr>
<td>Attend breakdown calls, performing quick diagnoses in order to</td>
<td>20</td>
</tr>
<tr>
<td>carry out emergency repairs on TRUs</td>
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<tr>
<td>Complete industry-compliant legal documentation for customers and</td>
<td>10</td>
</tr>
<tr>
<td>employer</td>
<td></td>
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<tr>
<td>Liaise with customers: explain clearly the work being carried out</td>
<td>10</td>
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<tr>
<td>updating them on progress and providing estimates</td>
<td></td>
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<tr>
<td>Maintain a complete stock of base level equipment</td>
<td>15</td>
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<tr>
<td>Conduct driver training with the customer to ensure the most</td>
<td>10</td>
</tr>
<tr>
<td>efficient use of TRUs</td>
<td></td>
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