CASE STUDY
Background

RSA Laminates UK PLC (RSA) manufactures sheet materials for the production of kitchen units. RSA collects the raw materials, some of which are fully regulated dangerous goods, and delivers the sheet materials to its customers. RSA also transports its customers’ finished kitchen units where RSA’s and its customers’ delivery/collections coincide. All of these collections and deliveries are currently carried out by a third party logistics company.

Following an unsatisfactory service from the logistics company, RSA intends to bring the entire logistics operation in house and has appointed you as its Transport Manager. You have an International CPC. You will be responsible for the transport department, including its budget, and for compliance with regulations.

Your main task will be to set up a new European Distribution Centre (EDC) based in Coventry. Deliveries from the EDC are scheduled to begin on Monday 21st October 2013. RSA will continue to use the third party logistics company to carry out collections and deliveries until it has obtained its own Operator Licence and has acquired the necessary vehicles for its own fleet.

The Directors are aware of Drivers’ Hours Regulations but are unfamiliar with digital tachographs. They have purchased computer hardware and software that will be used to collect and analyse digital tachograph data. One of your first tasks will be to draw up a policy for dealing with tachograph records.

European Distribution Centre information

The yard has hard standing for 75 vehicles and trailers. The building is brand new and the lease will be signed over to RSA next Monday. All vehicle maintenance will be contracted out.

Company policy

Unless specifically stated otherwise, drivers must take all break and rest periods as late as legally possible, and for the shortest period allowed. However, when not required to assist with loading and unloading, drivers must take a break.

When vehicles are not at the EDC, vehicle checks will be carried out immediately after completion of a daily rest.

Distribution Route 1

The only information available at this time is for Route 1. RSA intends to operate this route using its own vehicle from Monday 21st October 2013.

Route 1 will start and end at the EDC and will involve weekly collections and deliveries in the Netherlands (which is one hour ahead of the UK).
The vehicle to be used will:
- be a six-axle, 44 tonne GVW articulated vehicle.
- always be fully loaded (33 tonne payload) when leaving the EDC.
- use the ferry ports at Harwich and Hoek van Holland.
- travel to Den Haag for its first delivery and collection, before calling at the other four delivery/collection points in turn as shown in Fig.1 and detailed in Fig. 2 (see next page).
- return via Den Haag en route to the EDC.

The driver:
- will begin work at the EDC at 13:00 and carry out other work until 16:30, when he will take a one hour break.
- must start a regular daily rest once on board the ferry from Harwich to Hoek van Holland.

**Dangerous Goods**

Dangerous goods will make up around 30% of all loads collected in the Netherlands and will include:
- glues of UN 2752, which are class 3 flammable liquids
- dyes and stains of UN 3143, which are class 6.1 toxic

These dangerous goods are fully regulated under IMDG and ADR.
The one way distance from Coventry to Harwich is 265km. The vehicle will average 60 kph whilst in the Netherlands.

Fig. 1.

Delivery and collection information for Route 1

On Route 1, RSA will allow the driver 5 minutes for each tonne loaded and 5 minutes for each tonne unloaded.

<table>
<thead>
<tr>
<th>Delivery/collection points (in alphabetical order)</th>
<th>Tonnes delivered</th>
<th>Tonnes collected</th>
<th>Driver assistance required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apeldoorn</td>
<td>10 tonnes</td>
<td>Nil</td>
<td>Yes</td>
</tr>
<tr>
<td>Den Haag (outward)</td>
<td>6 tonnes</td>
<td>2 tonnes</td>
<td>Yes</td>
</tr>
<tr>
<td>Den Haag (return)</td>
<td>Nil</td>
<td>3 tonnes</td>
<td>No</td>
</tr>
<tr>
<td>Enschede</td>
<td>Nil</td>
<td>15 tonnes</td>
<td>No</td>
</tr>
<tr>
<td>Utrecht</td>
<td>Nil</td>
<td>13 tonnes</td>
<td>No</td>
</tr>
<tr>
<td>Zwolle</td>
<td>17 tonnes</td>
<td>Nil</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Fig. 2.
Vehicle utilisation target

Where the vehicle is less than fully loaded, the weight of its partial load is expressed as a percentage of its 33 tonne load capacity (‘Payload Utilisation’). The target for Payload Utilisation is 85%.

Between Coventry and Den Haag, the vehicle will always carry 33 tonnes (i.e., a Payload Utilisation of 100%).

Costing information for the vehicle to be used on Route 1

<table>
<thead>
<tr>
<th>Annual driving distance</th>
<th>125,000 km</th>
<th>Driver cost</th>
<th>20 ppk*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase price</td>
<td>£92,950</td>
<td>VED, insurance and Operator Licence (combined) cost per annum</td>
<td>£3,500</td>
</tr>
<tr>
<td>Residual value after five years</td>
<td>£20,000</td>
<td>Fuel cost</td>
<td>£1.25 per litre</td>
</tr>
<tr>
<td>No. of tyres</td>
<td>14</td>
<td>Fuel consumption</td>
<td>2.5 km per litre</td>
</tr>
<tr>
<td>Cost per tyre</td>
<td>£300</td>
<td>Ferry, admin and maintenance (combined) cost</td>
<td>30 ppk*</td>
</tr>
<tr>
<td>Average tyre life</td>
<td>84,000 km</td>
<td>* ppk = pence per kilometre</td>
<td></td>
</tr>
</tbody>
</table>

Fig. 3