Dear Tony

Re : Licencing biodiesel manufacturing facility

Thank you for your help the other day.

Plans
Please find attached a plan of the manufacturing facility showing the location of the processor and storage.

Metering
I have purchased and installed a fuel meter Alemite model 51008 on the output of my storage tank (200 litre drum) to the fill hose. I will log batches into the storage drum in my log book. The volume per batch will be determined by reading the graduated scale on the side on the biodiesel reaction vessel immediately prior to pumping to the storage tank, and entering this value into the log book.

Quality
Biodiesel samples will be tested by Bioworks Australia Pty Ltd initially and every 6 months. I have formulated standard procedures for manufacturing to ensure consistency of biodiesel. My source material will not be changing and so there will be little difference between batches.

Dangerous Goods

I plan to operate below the licensing limits for my biodiesel plant.

The limits are discerned from:

From:

Australian Standard AS1940:2004 "The storage and handling of flammable and combustible liquids" page 20 Section 2 "Minor Storage".

Methanol (Class 3, PG II material, Storage factor 2) limit on its own is 100 litres for shed separated from other buildings and boundary by 1 m space. 250 litres if 3 m separation.

Biodiesel (Combustible liquids in bulk, Storage factor 0.2) limit on its own is 500 litres for shed separated from other buildings and boundary by 1 m space.

Cooking oil (Combustible liquids in bulk, Storage factor 0.2) limit on its own is 500 litres for shed separated from other buildings and boundary by 1 m space.
KOH (Class 8, PG II, Storage factor 2) limit on its own is 100 kg.

From:


Dangerous goods exemption from licensing limits

Methanol (Class 3, PG II material, Factor 2) limit on its own is 500 litres for shed separated from other buildings and boundary by 1 m space.

Biodiesel (Combustible liquids in bulk, Storage factor 0.2) limit on its own is 5,000 litres for shed separated from other buildings and boundary by 1 m space.

Cooking oil (Combustible liquids in bulk, Storage factor 0.2) limit on its own is 5,000 litres for shed separated from other buildings and boundary by 1 m space.

KOH (Solid, Class 8, PG II, Storage factor 2) limit on its own is 500 kg.

My case

If the total storage factor is < 1000 then the minor store is exempt from licensing as a dangerous goods store. I will be storing amounts of materials well below the exempt limit.

<table>
<thead>
<tr>
<th>Substance</th>
<th>DG classification</th>
<th>Factor</th>
<th>Amount (litres/kg)</th>
<th>Individual storage factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>2 x 20 litre</td>
<td>2</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Biodiesel</td>
<td>2 x 200 litre</td>
<td>0.2</td>
<td>400</td>
<td>80</td>
</tr>
<tr>
<td>Cooking oil</td>
<td>2 x 200 litre</td>
<td>0.2</td>
<td>400</td>
<td>80</td>
</tr>
<tr>
<td>KOH</td>
<td>1 x 25 kg bag</td>
<td>2</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

Total storage factor

Storage Factor = 265 < 1000 therefore well below the exempt storage limit.
References


Australian Standard AS1940:2004 "The storage and handling of flammable and combustable liquids" page 20 Section 2 "Minor Storage".

Australian Dangerous Goods Code 6, Vol 2 Technical Appendices