Re: Generic Land-use Planning Advice for Grassland Fertilisers at Carrigrohane Road, Cork

The approach of the Health and Safety Authority to Land-use Planning (LUP) is set out in the document ‘Policy & Approach of the Health and Safety Authority to COMAH Risk-based Land-use Planning’ (the policy document). It is available from our website at:
http://www.hsa.ie/eng/Your_Industry/Chemicals/Control_of_Major_Accident_Hazards/Land_Use_Planning/

The document should be consulted to fully understand the advice given in this letter.
The Authority has now developed updated generic LUP advice in relation to the Grassland Fertilisers Cork establishment, located at Carrigrohane Road, Cork.
The generic advice takes the form of a zoning diagram in which 3 zones are delineated. The zones are displayed on the attached diagram (appendix 1).
The inventory of dangerous substances at the establishment, on which the generic advice is based, is also attached (appendix 2). The advice for each zone is briefly presented in the following table (full details are in the policy document):

<table>
<thead>
<tr>
<th>Level</th>
<th>Inner Zone Development</th>
<th>Middle Zone Development</th>
<th>Outer Zone Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Level 2</td>
<td>✗</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Level 3</td>
<td>✗</td>
<td>✗</td>
<td>✔️</td>
</tr>
<tr>
<td>Level 4</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>

where the various sensitivity levels of the developments can be broadly interpreted as:
LEVEL 1: People at work, Parking
LEVEL 2: Developments for use by the general public
LEVEL 3: Developments for use by vulnerable people
LEVEL 4: Very large and sensitive developments
The following points should be noted:

1. Although our LUP advice is risk-based, it is the policy of the Authority to advise planning authorities of the consequences of worst case major accidents, so that this may be taken account of in their decision making. In this case the consequences relate to damage from explosion overpressure from ammonium nitrate fertilizer. The following levels of damage from explosion overpressure are possible, in the event of the worst possible major accident (distance from the perimeter of the site):

<table>
<thead>
<tr>
<th>Damage Type</th>
<th>Distance (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Destruction</td>
<td>123</td>
</tr>
<tr>
<td>Severe</td>
<td>196</td>
</tr>
<tr>
<td>Moderate</td>
<td>316</td>
</tr>
<tr>
<td>Light</td>
<td>1020</td>
</tr>
</tbody>
</table>

2. The inventory and location of dangerous substances form the basis for the Authority’s advice. While the warehouse location is fixed, the potential storage locations for stacks of AN fertilizer (>24.5% N) are not and for the risk assessment, the probability was distributed around the possible storage locations at the perimeter of the site.

3. The enclosed zoning diagram will be suitable for most LUP purposes. However, you may wish to refer developments close to the zone boundaries or which do not easily fit into any of the categories in appendix 1 of the policy document to the Authority for further technical advice.

4. For some types of development, particularly those involving large numbers of people or developments involving more sensitive populations, it is likely that the deciding factor on land use planning technical advice is the societal risk i.e. the risk of large numbers of people being affected in a single accident. Therefore these types of development should still be referred to the Authority for an estimation of societal risk and appropriate technical advice. This includes developments outside Zone 3 but within the consultation distance of 700 m set out in the Planning and Development Regulations 2001-11 and notified to the planning authority by the HSA at the time of notification of the establishment.

5. As set out in the policy document, this generic advice document will be placed on our website at:

http://www.hsa.ie/eng/Your_Industry/Chemicals/Control_of_Major_Accident_Hazards/Land_Use_Planning/

If you have any queries, please contact the undersigned at the address below.

Please note that in future and where possible all requests and referrals in relation to land-use planning under the EC (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2006 (COMAH) should be sent electronically to the e-mail address:

chemicals@hsa.ie

and ‘Request for Technical LUP advice’ placed in the subject line.
Yours sincerely

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Inspector,
COMAH, Chemical Production & Storage (CCPS)

Appendices:
1. LUP Zone Diagram
2. Inventory of relevant dangerous substances
3. Note on the Approach of the HSA to the Provision of Land-use Planning Advice
1. LUP Zone Diagram
2. Inventories of Dangerous substances

Grassland Fertilizers Cork, Carrigrohane Road, Cork, has notified the following inventory under SI 74 of 2006:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Inventory (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AN Fertilizer (27-2.5-5 &amp; 30-6-0)</td>
<td>6600</td>
</tr>
<tr>
<td>LPG</td>
<td>6</td>
</tr>
<tr>
<td>Petroleum Products</td>
<td>12.68</td>
</tr>
</tbody>
</table>
3. **Note on the Approach of the HSA to the Provision of Land-use Planning advice.**

The Authority, acting as the Central Competent Authority under the EC (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2006 (SI 74 of 2006), gives technical advice to the planning authority when requested, under regulation 27(1) in relation to
(a) the siting of new establishments,
(b) modifications to an existing establishment to which Article 10 of the Directive applies, or
(c) proposed development in the vicinity of an existing establishment

The advice given is for the purposes of assessing new development only. A full explanation of the Authority’s Land Use Planning advice system can be found at http://www.hsa.ie/eng/Your_Industry/Chemicals/Control_of_Major_Accident_Hazards/Land_Use_Planning/.

Your attention is drawn to Article 12 of the EU Directive 96/82/EC (as amended by Directive 2003/105/EC):

‘Member States shall ensure that their land use and/or other relevant policies and the procedures for implementing those policies take account of the need, in the long term, to maintain appropriate distances between establishments covered by this Directive and residential areas, buildings and areas of public use, major transport routes as far as possible, recreational areas and areas of particular natural sensitivity or interest, and, in the case of existing establishments, of the need for additional technical measures in accordance with Article 5 so as not to increase the risks to people.’

and to the Major Accident Hazard Bureau/ Joint Research Centre of the European Commission guidance in this area:

From the text of the Directives the following conclusions may be drawn with regards to the overall land use (or spatial) planning system:

- The requirement of Article 12 is a specific one within the general objectives of planning.
- The requirement may be fulfilled by means of planning and/or technical solutions.
- It is a mandatory requirement, which means it cannot be “overruled” by other factors of consideration.
- It applies only for cases of future development (new sites, modifications or new developments in the vicinity) → Article 12 therefore does not apply retrospectively.

In giving its advice the Authority does not deal with routine emissions. It is the understanding of the Authority that such emissions will be subject to EPA or Local Authority scrutiny and control.

The operator of an establishment covered by S.I. 74 of 2006 is also required to take all necessary measures -
(a) to prevent major accidents occurring, and
(b) to limit the consequences of any such major accidents for man and the environment.

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