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Line Manager
Mr T Williams

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HID CI5 Ref: 4.2.1.987.
Your Ref:

For the attention of John Allen

Dear Sirs

I refer to the meeting of the 21st July when you and Mr S Allen met Mr J Murray and Mr A Williams from the HSE. I write to confirm the matters discussed.

1. HSE explained the basis and strength of its advice against the proposed residential development on the Devons Wharf site. Further clarification was sought of London Thames Gateway Development Corporation's (LTGDC) interpretation of the consultants report leading to the recommendation to the planning committee, but were simply referred to published material.

2. HSE remains of the view that intensive residential development on this site close to the major hazard gasholder installation is undesirable and continue to advise against it. Not to do so would undermine the requirement and spirit of Article 12 of the Seveso II Directive. However, should the following measures be adopted HSE would be content that the public safety concerns underpinning that advice have been fully understood and would be content to leave the judgement on the balance between these concerns and other benefits to LTGDC who also should have regard for Article 12 of the Seveso II Directive.

3. Potential risk reduction measures

Although it may not be possible to quantify the reduction, the following measures, if maintained over the life of the development, have the potential to reduce the residual risk to people there.

a) Positions of Buildings on the plot:

Rearrange the development layout so that all buildings are beyond the HSE's inner zone. This extends to 112m from the centre of number 1 holder. This should ensure that the buildings would not be directly contacted by the flame from a major accident at the Poplar Gasholder Station.

b) Design of Buildings:

Minimise, or preferably eliminate, openings facing the gasholder station, so as to reduce the internal materials exposed to thermal radiation should a major accident occur.

c) Means of Escape:

Arrange the escape routes from the upper floors and exit ways out of the buildings so that people travel down as far away as possible from the gasholder and then can escape away from the effects of a major accident.

4. Current position regarding the Devon Wharf application (PA/09/00109)

LTGDC has already agreed in writing not to determine the case until HSE has decided whether or not to request call-in. If this position changes, please could you give us early notice so that HSE can consider whether it is necessary to obtain an Article 14 Direction (Stop notice)

5. The Atkins QRA

The QRA contains no information which has influenced HSE's actions in this case.

The report is unclear about the significance of the levels of risk and how this should be assessed (Chapter 6); to this end, we have included some significant points outlining the HSE's concerns, namely, Atkins has:

a) failed to make clear in its description of the PADHI scheme that PADHI is the delivery mechanism for HSE's LUP advice as required by Seveso II, to enable local authorities to comply with the obligations of Article 12, as amended, of that directive.

b) referred to its approach as being a conservative best estimate as opposed to a cautious best estimate (CBE) used by HSE. We would like to highlight that the HSE and Atkins use two very different approaches; failure to recognise this might lead local authorities to mistakenly believe that Atkins is employing the same level of overall caution as the HSE. In a recent public inquiry concerning the Brit Oval Cricket Ground both the Inspector and the Secretary of State concluded that the HSE's use of cautious best estimate (CBE) as the basis for its advice was justified.

c) compared the levels and increases in local societal risk against HSE's tolerability framework, despite the fact there are currently no government agreed benchmarks for judging the significance of residual local societal risk in a LUP context.

d) used only voluntary risk comparators i.e. risks arising from activities in which people gain some direct benefit; the HSE disagrees with this approach because it has recognised that LUP risks should more correctly be compared to those from activities to which people are exposed to on an involuntary basis. HSE has stated its position in the publication; Risk criteria for land use planning in the vicinity of major industrial hazards Examples are the risk of being struck by lightning which has been estimated at 0.1 chances per million per year (cpm/yr) and by being struck by a meteorite at 0.00006cpm/yr.

e) compared its risk levels against the tolerability of risk framework which HSE developed for use in justifying whether operations comply with the Health and Safety at Work legislation; the HSE takes the view that this is inappropriate and the tolerability framework contained in R2P2, goes on to explain at para 137 that a different situation arises altogether when giving advice to planning authorities. As noted in paragraph A4 of Planning Circular 04/2000, HSE's LUP advice is based on the residual risk of a major accident after all reasonably practicable (ALARP) measures have been taken by the operator. Even when an operator has reduced risks to Tolerable or Broadly Acceptable levels under the TOR framework, then the residual risk can still be sufficient for planning permission for a new development to be refused.

6. Atkins has estimated the individual risk of receiving a dangerous dose as 2.3cpm/yr at the development. Whilst HSE does not agree with the Atkins methodology and does not accept that it reflects a "*realistic but conservative best estimate approach*", even a residual risk value of 2.3cpm/yr of a dangerous dose would place the development site within the PADHI Middle Zone and, consequently, the QRA would actually confirm HSE's advice against the proposal.

It appears that LTGDC may have based its decision on the Atkins QRA which further to the reasons set out above, lacks clarity in respect of the significance concerning the levels of risk.

Yours faithfully

S Wright
HM Specialist Inspector
Major Accidents Risk Assessment Unit