



Appeal Decision

Inquiry Held on 17-18 April 2018

Site visit made on 18 April 2018

by Elizabeth C Ord LLB LLM MA Dip TUS

an Inspector appointed by the Secretary of State for Communities and Local Government

Decision date: 23 April 2018

Appeal Ref: APP/H0738/W/17/3185095

Land off Charlton Close, Greenwood Road, Billingham, TS23 4AY

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant outline planning permission.
 - The appeal is made by Mr John Fifield of Osbourne House Group against the decision of Stockton-on-Tees Borough Council.
 - The application Ref 16/2368/OUT, dated 13 September 2016, was refused by notice dated 29 March 2017.
 - The development proposed is Residential Development of 27 dwellings consisting of 18no. 2-bedroom bungalows and 9no. 3-bedroom houses.
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Decision

1. The appeal is dismissed.

Preliminary Matters

2. The application is in outline with permission sought for access, layout and scale. Appearance and landscaping are reserved. This is the basis upon which I have determined this appeal.
3. The parties simultaneously submitted closings in writing as agreed at the Inquiry. The Appellant was offered the opportunity of final reply but declined. The Inquiry was closed in writing.

Main Issue

4. Having taken account of all evidence before me, including that from interested persons, and having visited the site and walked and driven around the surrounding area, I consider the main issue to be whether the proposed development is acceptable in view of its proximity to a major hazard chemical plant.

Reasons

Risk of exposure

5. The appeal site lies within the middle consultation zone of a major hazard establishment or COMAH (Control of Major Accident Hazards) site where there is a risk of exposure to anhydrous gaseous ammonia (NH₃). In the event of a major accident, exposure to high levels of NH₃ would cause injury ranging in severity from eye, nose and throat irritation to permanent disability from such things as chemical burns to the lungs. Death could occur from choking or

pulmonary oedema, amongst other things. Therefore, as per *The Town and Country Planning (Development Management Procedure)(England) Order 2015*, the advice of the Health and Safety Executive (HSE) is required and should be taken into account before determining certain planning applications in the consultation zones including residential .

6. In this case, informed by the residual risk to residents (that remaining after taking all reasonably practicable safety precautions at the plant) of receiving a "dangerous dose or worse" of anhydrous ammonia (NH₃), HSE's advice is not to grant planning permission. According to *R V Tandridge District Council ex parte Mohamed Al Fayed*¹ great weight should be given to such technical advice from the HSE. Furthermore, the Planning Practice Guidance (PPG) states that, whilst the decision on whether to grant planning permission rests with the local planning authority, any advice from the HSE that planning permission should be refused should not be overridden without the most careful consideration².
7. In assessing residual risk, the HSE has had regard to its *Land Use Planning Methodology* (LUPM), which seeks to ensure compliance with the EU *Seveso III Directive*, as implemented in England by the *Control of Major Accident Hazards Regulations 2015* (COMAH Regulations). The LUPM defines "dangerous dose" as severe distress to all; a substantial number requiring medical attention; some requiring medical treatment; and some (about 1%) fatalities.
8. The risk of receiving a dangerous dose increases with proximity to the chemical plant, with the inner zone posing the highest risk and the outer zone the lowest. The middle zone, in which the proposed development is situated, is bounded by isopleths (contours) indicating a risk of 10 chances per million per year (cpm) on the boundary with the inner zone, and 1cpm on the boundary with the outer zone. The accepted evidence from the Council is that the individual risk of receiving a "dangerous dose" at the centroid of the proposed development is 3.3cpm ($3.3 \times 10^{-6} \text{ yr}^{-1}$).
9. The HSE evidence is that individual risk is based on a hypothetical person and such a person is not taken as being one of the more vulnerable in society. The LUPM defines the vulnerable as children, the elderly and/or those in ill health. Whilst the various documents before me do not give values for such a hypothetical person, they give some direction on how the hypothetical person has been framed. For example, the technical assumptions underpinning the LUPM refer to risk assessment calculations relating to a typical house resident, and the 1989 HSE document *Risk criteria for land-use planning in the vicinity of major industrial hazards* also refers to quantifying individual risk in terms of that received by a hypothetical resident . I accept that a typical house resident is not likely to be one who is vulnerable but rather one who is neither very young nor very old, and in reasonable health.
10. In the event of exposure to NH₃ from a dangerous dose, the responses of different individuals will vary within a cross section of society. For the typical house resident with a 1% fatality risk upon exposure, the annual risk of death would equate to 0.03cmp ie the 3.3cpm risk of exposure multiplied by 0.01, being 1% risk of death on exposure.

¹ Times LR, 28 January 1999

² ID: 39-071-20161209

11. However, a dangerous dose to the highly vulnerable would most likely result in their death according to paragraph 54 of the 1989 *Risk Criteria* document. Therefore, the risk of death to those people is 3.3cmp ie the agreed 3.3cmp multiplied by 1.0, being a 100% risk of death on exposure.
12. Paragraph 54 also refers to the 1cmp for a typical user of the development at the lower middle zone boundary of receiving a dangerous dose or worse. It then goes on to indicate that for the majority of the population, the corresponding risk of death is $\frac{1}{3}$ cmp, thereby indicating that for those who receive a dangerous dose, one third are likely to die.
13. Paragraph 81 of the *Risk Criteria* then goes on to indicate that housing developments would be assessed on the basis of there being an average mix of the healthy, unhealthy, young and old, advising that it may be difficult to organise people in an emergency.
14. Consequently, on the basis of the *Risk Criteria*, the overall risk of death to the whole residential group would equate to 1.1cmp ie the 3.3cmp risk of exposure multiplied by 0.33, being the 33% chance of death.
15. The Appellants, however, refer to another 1989 HSE document, namely *Assessment of the Toxicity of Major Hazard Substances*. This considers reports on the proportion of the population that should be considered to be particularly vulnerable. By classifying this vulnerable category as those at the extreme ends of the age range, and people with physiological disabilities, it refers to estimates of such people constituting about 25% of the population. However, the Appellants stress that it then goes on to say this is mainly conjectural, in that there are no data on the relative sensitivities of different groups within the population.
16. Nonetheless, it stands to reason that those who are more vulnerable will, on average, be more sensitive, and whilst the cited reports may not be based on empirical scientific evidence, they are based on best estimates. In my judgement, nothing in *Assessment of the Toxicity of Major Hazard Substances* detracts from the *Risk Criteria* or the calculations set out above.
17. The Appellants' case is that, even at the figure of 1.1cmp, the risk of death is acceptable. In support they quote paragraph 130 of the 2001 HSE document *Reducing risks, protecting people*, known as R2P2. This states that an individual risk of death of 1.0cmp for both workers and the public corresponds to a very low level of risk and should be used as a guideline for the boundary between broadly acceptable and tolerable regions. However, the HSE evidence is that this paragraph is referring to health and safety matters, which are not aimed at the risks relating to potential new residential developments. I accept this for the following reasons.
18. Paragraphs 137 to 139 consider potential new developments. Paragraph 137 indicates that a different situation arises altogether when giving advice to planning authorities in connection with proposed developments in the vicinity of major hazard chemical plants. This is because the developments have not yet been permitted and not allowing them due to putative societal risks to which occupants would have been exposed is relatively inexpensive compared to the costs entailed in requiring remedial measures for existing developments.

19. Paragraphs 138 and 139 refer to the risk of "death". However, the HSE evidence is that reference to "death" is a well-known errata in these paragraphs and should read "dangerous dose or worse". This is clear from paragraph 137, which says that that advice to planning authorities on societal risks are based in the first instance on the level of individual risk per year for a hypothetical person of receiving a dangerous dose or worse, together with certain characteristics of the development. I, therefore, accept that the reference to "death" in paragraphs 138 and 139 is a mistake.
20. Reading paragraph 138 correctly, for most significant housing developments it advises against granting permission where the individual risk of receiving a dangerous dose or worse for the hypothetical person is more than 10cmp, and does not advise against granting planning permission where the individual risk is less than 1cmp.
21. Paragraph 139 goes on to suggest that where the individual risk of receiving a dangerous dose or worse is between 1cmp and 10cmp, closer scrutiny is required, taking into account a more detailed assessment of the individual risk, the area of the development, the number of people involved, their vulnerability and how long they are exposed to the risk. This is the range within which the proposed development lies with an individual risk of 3.3cpm.
22. Reading the document as a whole, it mainly relates to health and safety rather than land use planning matters. Nonetheless, in commenting on the risks to wider society compared to individual workers, it suggests these risks should be different because, as opposed to workers, risks to society are imposed without gain. It also indicates that an acceptable risk to an individual could impact unfairly on vulnerable groups, such as the young or the elderly or particularly susceptible individuals, thereby rendering it unacceptable to society. Consequently, it advises that the risk of death to members of the public who have a risk imposed on them should be an order of magnitude lower than for an individual at the workplace.
23. Turning now to scale, the size of the development is also instrumental as it provides an indication of the numbers of people that might be involved. The LUPM, however, considers numbers of houses rather than people because planning applications do not give the numbers of people who would likely be resident in a development.
24. Whilst the proposal is for 27 dwellings, there is an existing adjacent development of 30 dwellings in the middle zone. Consequently, the proposal would increase the total number of people at risk of exposure in the event of a major accident. The PPG advises³ that local planning authorities should take account of increases in numbers of dwellings in the consultation zones, rises in population resulting in proportionate increases in consequences from major accidents, and the substantial costs for businesses that may have to provide additional safety measures. Clearly, the two developments must logically be considered together on a cumulative basis as 57 houses.
25. The LUPM includes a decision matrix which combines the sensitivity level of a development with residual risk to provide resultant advice of either "Advise Against" or "Do Not Advise Against". For developments of more than 30 dwellings (Level 3 sensitivity) in the middle zone the matrix states "Advise

³ ID 39-069-20161209

Against". The combined developments of 57 dwellings therefore fall into this category of advice.

26. Whilst the Appellant submits that other significant residential developments have been allowed in middle zones in other parts of the country, it would appear that this has largely been against the advice of the HSE or in cases where incorrect information has been submitted to the HSE. Therefore, I give this limited weight.
27. In summary, whilst the risk of exposure to a dangerous dose of NH₃ is low, the consequences of such exposure could be catastrophic with many residents requiring medical attention and an estimated one-third of residents dying. The potential to inflict such serious harm must be given great weight. The advice of the HSE not to grant planning permission is soundly based, robustly justified and in accordance with its own advice documents. Clearly, if this proposed residential development were to be allowed, it would pose a significant threat to the safety of a significant number of people contrary to saved policy EN38 of the Stockton on Tees Local Plan 1997. Furthermore, by increasing the potential consequences of a major accident, it would not accord with the *Seveso III Directive* and the *COMAH Regulations*.

Benefits

28. It is common ground that the Council does not have a five year housing land supply and the proposal, which includes affordable housing, would contribute to that supply.
29. Furthermore, the parties have signed a s106 Agreement obligating the Appellants to complete the footpath around Charlton Pond, to make financial contributions for primary and secondary school education, and to donate land to the Scout Association. These obligations comply with Regulation 122 of the CIL Regulations 2010 (as amended).
30. All these benefits carry weight.

Planning Balance

31. Due to the five year housing land supply shortfall, the parties agree that the tilted balance in paragraph 14 of the National Planning Policy Framework is engaged. Balancing the risks of harm against the benefits of the proposal, I am in no doubt that the adverse impacts of granting planning permission would significantly and demonstrably outweigh the benefits. Therefore, the appeal is dismissed.

Elizabeth C Ord

Inspector

APPEARANCES

FOR THE LOCAL PLANNING AUTHORITY:	
Anthony Gill of Counsel	
He called:	
Richard Heaton MPhys	HM Specialist Inspector of Health and Safety
Edmund Cowpe BSc, MSC (Dist), MICHemE	HM Principal Specialist Inspector of Health and Safety
Elaine Atkinson MA	Principal Planning Officer, Stockton-On-Tees Borough Council

FOR THE APPELLANT:	
David Manley of Queens Counsel	
He called:	
Neil Martin CMIOSH, MPhil, BSc(Hons), PG Dip Process Safety, PG Dip Health and Safety	Managing Director of NDM Safety Solutions Ltd
Matthew Gilbert BSc(Hons), MRTPI	Principal of the Planning Consultancy

INTERESTED PERSONS:	
David Rodway	Local Resident
Stuart Cowland	Local Resident

DOCUMENTS SUBMITTED AT THE INQUIRY

1. E-mail from CF Fertilisers
2. Appellant's Opening
3. Council's Opening
4. Draft Conditions
5. Council's Appearances
6. Appellant's Appearances
7. Council's Closing
8. Appellant's Closing
9. Section 106 Agreement