

**Planning Applications Committee  
30th July 2009  
Section B**

<b>Agenda Number:</b>	B2
<b>Section/Area:</b>	Outer
<b>Ward:</b>	Wensum
<b>Officer:</b>	Anne Napier
<b>Valid Date:</b>	12th February 2009
<b>Application No:</b>	09/00124/H
<b>Site Address :</b>	Bayer Cropscience Ltd Sweet Briar Road Norwich NR6 5AP
<b>Proposal:</b>	Storage of notifiable hazardous substances.
<b>Applicant:</b>	<b>Bayer Cropscience Ltd</b>
<b>Agent:</b>	<b>S Brook</b>

**INTRODUCTION**

**This item concerns an application for hazardous substances consent. As such applications are only infrequently received, the following information has been included to provide contextual information regarding the application process and purpose.**

A new system of control over hazardous substances was introduced via the Housing and Planning Act 1986 by amending the 1971 Town and Country Planning Act and integrating it with planning controls. That integration was removed in the Consolidation Acts of 1990 which divorced the hazardous substances provisions from planning powers and placed them in a separate Act – the Planning (Hazardous Substances) Act 1990. This can be considered as logical as, although there is a close relationship between the two systems, they are conceptually and functionally different.

Since the coming into force of this Act in June 1992, the presence on, over or under land of any hazardous substance in excess of the controlled quantity has required consent from the hazardous substances authority (usually the same council or body that would act as the local planning authority and, in this case, Norwich City Council). Applications are made to the hazardous substances authority, which is required by regulations to consult with the Health and Safety Executive and the Environment Agency (and others) and is empowered to grant consent either unconditionally or subject to such conditions as it thinks fit (although any condition relating to how a hazardous substance is to be kept or used may be imposed only if the HSE has advised that any consent should be subject to such condition(s)), or to refuse it.

The new controls were phased in, with a transitional period of six months during which consent could be claimed in respect of any hazardous substance which was present on the land at any time within the 12 months immediately preceding the commencement date. There were similar transitional arrangements following the coming into force of the Planning (Control of Major Accident Hazards) Regulations in April 1999. If consent was applied for under these transitional arrangements, then a deemed consent was granted for the substances on the site in the twelve months prior to the new controls coming into force.

Separate Regulations administered by the Health and Safety Executive implement the majority of the Seveso II Directive, which concerns the Control of Major Accident Hazards. Hazardous substances consent (hsc) is required for the presence of hazardous substances present at any COMAH sites (which are mainly related to the chemical industry). But these sites will also need to meet the wider health and safety requirements of the Seveso II Directive, which include notifying the Competent Authority (the Health and Safety Executive and the Environment Agency) of the presence of dangerous substances and to have in place major-accident prevention policies. It can also include requirements to prepare a safety report, to which there is public access, the preparation and testing of on-site and off-site emergency plans and informing members of the public likely to be affected by a major accident.

In addition to these controls, the Environment Agency is also responsible for monitoring the site as a Part A1 site under the Integrated Pollution Prevention and Control (IPPC) Regulations under the Pollution Prevention and Control Act 1999. These controls relate to the control of pollution to air, land and ground water.

Hazardous Substance Consent controls give hazardous substances authorities (hsa) the opportunity to consider whether the proposed storage or use of the proposed quantity of hazardous substance is appropriate in a particular location, having regard to risks arising to persons in the surrounding area and to the environment. If consent is agreed, a consultation zone will be established within which proposals for future development will also be referred to consultees to

consider possible effects on public safety. Such a consultation zone exists for the application site.

The following is taken directly from the central government **Circular 04/00: 'Planning controls and hazardous substances'**:

**'Purpose Of The Controls**

9. The hazardous substances consent controls are designed to regulate the presence of hazardous substances so that they cannot be kept or used above specified quantities until the responsible authorities have had the opportunity to assess the risk of an accident and its consequences for people in the surrounding area and for the environment. They complement, but do not override or duplicate, the requirements of the Health and Safety at Work etc Act 1974 and its relevant statutory provisions (defined at s.53 of that Act) which are enforced by the Health and Safety Executive. Even after all reasonably practicable measures have been taken to ensure compliance with the requirements of the 1974 Act, there will remain a residual risk of an accident which cannot entirely be eliminated. These controls ensure that this residual risk to persons in the surrounding area and to the environment is properly addressed by the land use planning system.

10. Local planning authorities are able to exercise a degree of control over those substances through the development control system where the presence of hazardous substances is directly associated with a proposed development. But there are situations in which hazardous substances may be introduced onto a site, or used differently within it, without there being any associated development requiring an application for planning permission. The hazardous substances consent provisions enable specific controls to be exercised over the presence of hazardous substances whether or not associated development is involved. Hazardous substances authorities will be able to decide whether, in the light of the residual risk, and having regard to existing and prospective uses of a site and its surrounding environment, the proposed presence of a hazardous substance is an appropriate land use of that site.'

The circular goes on to state:

'41. The role of HSE and the Environment Agency is to advise the hazardous substances authority on the risks arising from the presence of hazardous substances. HSE has the expertise to assess the risks arising from the presence of a hazardous substance to persons in the vicinity; the Environment Agency has the expertise to assess and advise upon the likely risks arising to the environment. However, the decision as to whether the risks associated with the presence of hazardous substances, either to persons or to the environment, are tolerable in the context of existing and potential uses of neighbouring land is one which should be made by an elected authority (the hazardous substances authority).

46. In considering hazardous substances consent applications, or planning applications for development at or in the vicinity of sites at which hazardous substances are present, authorities must have regard to the provisions of the development plan, so far as it is material to the application [...].

## **THE APPLICATION**

### **THE SITE**

The Bayer Cropscience site covers a large area of land to the west of Sweet Briar Road within the north-west part of Norwich. The site extends along the highway for this part of the outer ring road and is bounded by Hellesdon Road to the west. Hellesdon Hall Road separates two parts of the site to the north with the site extending to the local authority boundary to the north and with the Marriot's Way adjoining the boundary of the site to the south. A site of special scientific interest is to the south-east of the site, with county wildlife sites to the south, south-east and south-west of the site. The overall site is partly developed with other buffer land to the south and to the west separating the site from nearby residential uses.

The site has been part of the Bayer group for the last 6/7 years. In this time, the parent company has reduced the number of sites operating within the UK from 3 sites to one, with the site in Norwich being the remaining site in this country. The forward plan for the site has involved a number of the 'older' processes, previously manufactured on the site for other companies, being closed down over the last two years, with Bayer then seeking to secure additional work to provide replacement processes. So far, four out of 15 or so processes have been closed down with two new processes added and various projects underway seeking to secure future business on the site.

It is understood that funding was awarded last year by the parent company to allow the production of THISA on the site, a chemical intermediate used in the manufacture of one of Bayer's new corn and wheat herbicides. Planning permission was granted in October last year for the associated tanks and bunding required for a new storage facility associated with this new process. Construction of the internal plant for this process is now completed. A limited seasonal opportunity exists for the use of the intermediate, which needs to be transferred to another site by the end of September for the final manufacture of the finished product, which is mainly exported to the United States.

Currently Bayer employs some 285 people directly on the site, with approximately 60 additional contractors. The new processes already started on site have resulted in 8 new employees, with the proposed new THISA process likely to result in an additional 8 new members of staff.

## PLANNING HISTORY

The site has been in use as a chemical works since the early 1950's and has incrementally changed to respond to the requirements of the company and safe operations on the site.

There have been three previous applications for Hazardous Substances Consent on the site. The details of the applications can be summarised as follows:

**4HS9204/H** – Storage and use of bromine (160 tonnes) (Deemed Consent Granted 08/12/1992)

**4/1999/0915/H** – Storage and use of notifiable hazardous substances as specified within the application (38 different hazardous substances with a total quantity of 2,313 tonnes) (Deemed Consent Granted 02/02/2000)

**4/2000/0193/H** – Storage and use of substances to manufacture NTBN (2-nitro-4-trifluoromethyl benzonitrile) (5 different hazardous substances with a total quantity of 338 tonnes) (Consent Granted 15/06/2000)

In addition to the above hsc applications, there have been a significant number of planning applications relating to the operations on the site over the years, including some for fencing, portacabins, offices and training facilities, for example.

Of the more recent planning applications, those most relevant to the storage and processing of chemicals on the site include:

**4/1999/0300** - Installation of two chloride tanks. (Approved - 27/05/1999)

**03/00231/F** - Erection of extract flue and associated plant on roof (Approved - 20/01/2004)

**4/2003/0296** - Construction of ester unloading bund and erection of covering structure to whole bund area. (Approved - 15/05/2003)

**06/00808/F** - Refurbishment of N50 building including new roof structure and over-cladding of existing building. (Approved - 22/09/2006)

**06/01013/F** - Provision of tank bund area, associated electrical switch room and pipe bridge to provide enhanced storage of flammable products. (Approved - 27/11/2006)

**08/00513/F** - Construction of new tank farm consisting of two reinforced concrete bunds in which horizontal tanks (5 No. total) shall be located. Modifications to existing reinforced concrete roadway to form tanker bay and ancillary pipeworks. (Approved - 22/10/2008) **(NB This permission provides for the additional tanks and bunding required for the storage facility associated with the THISA process.)**

**08/01100/F** - Proposed two new low level reinforced concrete containment bunds. An additional tank base and tank to be provided in adjacent existing low level reinforced concrete bund with new capacity scrubber reservoir on reinforced concrete plinths and scrubber column with steelwork supporting frame to replace existing. New low level bunded area to be constructed at level of existing road to form new wash down area. (Approved - 21/01/2009)

## THE PROPOSAL

The application was originally submitted in February for a number of different substances, the majority of which proposed variations to the previous consents granted on the site. The original view was taken by the applicants that a single application for consent on the site would, if approved, result in a comprehensive consent for the whole site which would more accurately reflect the current requirements of the site operator (it should be remembered that four processes previously operating on the site no longer take place, but consent remains for the storage and use of chemicals associated with these historic processes).

However, this complex application required a lengthy risk assessment process to be undertaken by the HSE in order to assess the potential for risk for all substances stored and used across the whole site on a comprehensive basis. As detailed above, the seasonal production window for THISA is limited and, due to the length of time the comprehensive risk assessment was taking, a decision was made by the applicants to amend the application to effectively withdraw large parts of the application as submitted and to only retain within the application those additional substances required for the production of THISA.

Consequently, the application was amended in June and now seeks consent for the following:

Toxic: Anhydrous Ammonia - 5 tonnes (a reduction from 69 tonnes currently consented)

Toxic & Oxidising: Sodium Nitrite – 30 tonnes

Toxic: Sulphur Dioxide – 12 tonnes

Flammable: Chlorobenzene – 120 tonnes

Highly Flammable: Acetone – 75 tonnes

Dangerous for the Environment – very toxic to aquatic organisms: Cuprous Chloride – 5 tonnes

Dangerous for the Environment – toxic to aquatic organisms: Thisa (Thiophene-sulfonamide) – 100 tonnes

## CONSULTATIONS

The application was publicised **on site and in the press** by the applicant prior to the submission of the application in accordance with the relevant regulations. No responses have been received as a result of the publicity undertaken.

As a direct result of advice received by the applicant from Special Branch with regard to the potential risk to the safety and security of the site resulting from widespread access to the details of the submission, the application was not included in the 'weekly list' of applications or publicised via Public Access on the Council's website. This has not breached any publicity requirements associated

with this type of application, which has remained available in full for public inspection in person throughout the application process.

Consultations have been undertaken with the statutory consultees and their responses are summarised below.

In addition, the three local ward members were notified of the application on 11 March 2009 and then again, following the amendment to the application, on 11 June 2009. At the stage of the second notification, it was hoped to include the application on the agenda for the meeting of the Planning Applications Committee on 2 July 2009. The comments received on 20 June from Councillor Read as a result of this second notification are reproduced below and should be read in that context.

Subsequent to these comments being received, a meeting took place between the case officer, the Head of Planning and Regeneration and Cllrs Read and Makoff. The Councillors expressed their concerns regarding the proposal and the advice received from the HSE and the EA. Further clarification regarding the advice provided has been sought and obtained from both the Health and Safety Executive and the Environment Agency and this has been shared with the Councillors and is outlined in the assessment of the proposals below.

In addition to the publicity undertaken by the hazardous substances authority, it is understood that Councillor Read has, as a local ward member, publicised the application within the locality of the site by way of a local newsletter.

One representation has been received to date as a result of this publicity, noting previous historic problems with the storage of substances on the site and asking that the storage of the substances proposed are secure and regulated.

**Fire Service:** }

**Norfolk County Council, Planning:** } No response received to date

**Strategic Gas and Electricity Supplier:** }

**Natural England:** No comments.

**Emergency Planning Officer, Norfolk County Council:** The applicant has always worked closely with Emergency Planning, the Emergency Services and the Competent Authority in the production and testing of the On and Off Site Plans as per the requirements of the Control of Major Accident Hazards Regulations 1999 (as amended). The changes outlined in the paperwork provided will not have an impact upon this emergency management process and therefore we have no comment to make.

**Broadland District Council, Planning:** No comment

**Broadland District Council, Environmental Health:** Request that the application is considered with the full input of the Health and Safety Executive to ensure that all risks are managed.

**Norfolk Constabulary, Counter Terrorism Security Advisor:** Respectfully requests that efforts are made to reduce the amount of sensitive information made publicly available, due to potential activity by extremist organizations using knowledge of the site gained from such information.

**Environment Agency:** Comments – details of containment bunds, filling points, pipework and discharge arrangements specified; comments regarding the site operator ensuring only clean uncontaminated surface water to be discharged to and soakaway, watercourse or surface water sewer.

**Health and Safety Executive:** The Major Accidents Risk Assessment Unit (CI5) of the HSE has assessed the risks to the surrounding areas from the likely activities resulting from the granting of the proposed Hazardous Substances Consent.

Only the risks from hazardous substances for which Consent is being sought have been assessed. These have been compared with the risks from substances for which consent already exists (see Note 2). Risks which may arise from the presence of other substances for which consent is not required have not been taken into account in this assessment. We have not assessed the B10 substances with respect to harm to people. Thus, the following have been assessed: Anhydrous ammonia (Part B2); Sodium nitrite (Parts B2 & B3); Sulphur dioxide (Part B2); Chlorobenzene (Part B6); Acetone (Part B8).

In considering this application for Consent, HSE has made the assumption that the requirements of the Health and Safety at Work etc. Act 1974, and all relevant statutory provisions, will be met at the establishment should Consent be granted.

Accordingly HSE advises that you should direct the applicant's attention to section 29 of the Planning (Hazardous Substances) Act 1990. This makes it clear that nothing in any Consent granted can require or allow the building or operation of an establishment which does not comply with the relevant statutory provisions and to the extent that any consent purports to require or allow any such thing it is void.

On this basis, CI5 have concluded that the risks to the surrounding population arising from the proposed operation(s) are so small that there are no significant reasons, on safety grounds, for refusing Hazardous Substances Consent.

Following DoE advice that particulars in the application on Form 1 do not automatically become conditions of consent, it would be beneficial to include a condition such as:



"The Hazardous substance(s) shall not be kept or used other than in accordance with the application particulars provided in Form 1, nor outside the area(s) marked for storage of the substance(s) on the plan which formed part of the application." (See Notes 3 & 4)

A three zone map already exists for this site. This is located on the HSE's PADHI+ land use planning advice system within the Consultation Zone Library and is available to your authorised administrator and users via the extranet. **No revision of this map is proposed as a result of the assessment of this recent application for additional hazardous substances.**

Notes:

1. This reference number was originally assigned to an earlier application from the site, dated 06/02/09, which referred to a site review of all hazardous substances covered by existing consent(s) and proposed additional substances. However, this response refers only to the revised application submitted by the site, dated 9/06/09, relating in the main to the introduction of new substances to the site that require hazardous substances consent. We will continue to assess the earlier application dated February 2009.
2. This site currently holds consent for a wide range of flammable, toxic, oxidising, Dangerous for the Environment substances and substances that react with water. The risks arising from those substances in the present application have been compared with those for the existing consent.
3. Storage of substances in fixed vessels is limited to those storages as indicated in Table C of the application form and as shown on Drawing No. 22416, provided with the application.

**Councillor Read (received 20 June 2009, prior to further clarification being received from the HSE and EA):**

'I have studied the list of chemicals that are being applied for for use and storage at the Bayer factory. It is crystal clear from the list that these are in some cases potentially EXTREMELY dangerous / lethal. And as a local Councillor I have *already* over a period of years received numerous complaints from residents about the smells that have come from the Bayer factory (and have sometimes smelt them myself), some of which seem very noxious. I have had three reports, from people unwilling to go public with the matter for fear of possible repercussions, of people fainting from inhalation of these smells, in all cases from near the River Wensum at the factory edge.

It is very difficult to judge whether or to what extent these materials in this location pose any concrete substantial health risks to local people, or to the local environment, without the opportunity for in-depth study of the matter - and we have been given hardly any time at all to look into the matter. We are extremely dissatisfied with this. We were originally told that we would have about 6 months to look into this, and were hoping therefore to get expert opinion on the safety or

otherwise of storing and using these chemicals on this site in a dense urban environment. Now, suddenly, we have been told that we have one week in which to submit comments.

I wish to put to the Planning Committee the thought that this is not a satisfactory process. We and you are in effect being asked to nod through something which may or may not pose a real danger to our residents.

I humbly suggest that you refuse or postpone this application, pending a proper opportunity for local Councillors and others to undertake our own investigation of the potential hazard from these substances.'

## **POLICY CONSIDERATIONS**

### **Relevant National Policy Guidance:**

PPS 1 – Delivering Sustainable Development

PPS 9: Biodiversity and Geological Conservation

PPS 23 – Planning and Pollution Control

PPS 23 Annex 1 – Pollution Control, Air and Water Quality

### **Relevant Regional Policies:**

ENV7 – Quality in the Built Environment

### **Relevant Local Plan Policies:**

#### **EP3 –Health and Safety Consultation:**

'Development within the specified distances from the following sites will, apart from normal planning criteria, take account of the need for appropriate separation between hazardous installations and incompatible uses and any risks involved to the proposed development:

- Bayer Cropscience (up to 1000 metres from site boundary) [....].'

#### **EP5 – Air Pollution:**

'Development which may give rise to air-borne emissions of harmful substances, including smoke, grit and dust, will be required to assess the level of risk of demonstrable harm to human health or to the environment and to identify appropriate mitigation measures. Particular account will be taken of any sensitive uses, which would adjoin or otherwise be affected by such emissions.'

#### **EMP7 – Single employer sites:**

'The sites identified as single employer sites will be retained in their primary industrial use and development providing for appropriate expansion of the industries concerned will be permitted, subject to the need for improved access provision if necessary [....].'

## **NE7 – Protection of locally designated sites of nature conservation interest**

‘Development which would be detrimental to designated and proposed sites of regional and local importance for nature conservation and geological interest, including local nature reserves and county wildlife sites, will only be permitted where it can be demonstrated that there are reasons for the proposals, which outweigh the need to safeguard the nature conservation interest of the site. In such cases the proposal will include an assessment of the impact and appropriate mitigating measures will be undertaken.’

## **ASSESSMENT**

An application for hazardous substance consent is different to one for planning permission. Whilst the Council determines both types of application, the material considerations that should be taken into account are distinct to each process. For an application for hsc, the primary consideration is to assess whether, as stated in circular 04/2000, ‘in the light of the residual risk, and having regard to existing and prospective uses of a site and its surrounding environment, the proposed presence of a hazardous substance is an appropriate land use of that site.’

As can be seen from the comments outlined above, a number of the statutory consultees have assessed the proposal. None has objected to the application. The HSE in particular have concluded that ‘the risks to the surrounding population arising from the proposed operation(s) are so small that there are no significant reasons, on safety grounds, for refusing Hazardous Substances Consent.’

Following concerns expressed by the local ward members as to how these conclusions had been reached further clarification has been sought from both the HSE and the EA on this point.

### **The following additional advice on the process of assessment undertaken has been provided by the HSE:**

‘HSE’s advice is based on the residual risk to people which remains after all reasonably practicable measures, as required by the Health and Safety at Work etc. Act 1974 and its relevant statutory provisions, have been taken at the Bayer Cropscience site. It takes into account the maximum quantities of hazardous substances permitted by hazardous substances consent and any conditions attached to the consent. The assessment also takes into account the location of those dangerous substances on site as specified by the conditions of the consent. The result of the assessment is shown in the three zone map issued by HSE for consultation purposes so that advice can be given in respect of any proposals for development in the vicinity of the site. It shows individual residual risks to a typical house resident expressed in terms of chances per million per year (CPM) of receiving a dangerous dose of toxic substances.

There is always a small residual risk of a major accident occurring at a notified major accident hazard establishment. It is this risk that HSE takes into account when giving advice in respect of applications for hazardous substances consent. In the situation at the Bayer site there is an existing residual risk from the site arising from the presence of dangerous substances that are already present. These are the substances that are entitled to be present by the deemed consent claimed by the site. In this situation HSE has assessed the increase in risks arising from the revised application submitted in June 2009. HSE has assessed the risks from representative worst case major accidents to people living in the vicinity of the site for each classification of substance. Where it is possible to do so with reasonable certainty, HSE has also taken into account the likelihood of the representative accidents occurring. We have then compared those hazards and risks to those arising from the existing hazardous substances consent entitlement. The first point to make is that there has been a reduction in the quantity of one of the dangerous substances, anhydrous ammonia, down from 69 tonnes to 5 tonnes. This will result in an overall reduction in risk from this substance.

The remaining substances have been assessed by HSE and the results compared to the existing residual risks from the site. The results of that comparison exercise show that the increase in residual risk is so small that it will not result in any change to the residual risks that are shown on the consultation map used by HSE to provide land use planning advice. As a separate exercise, the hazards and risks from the substances included in the revised application of June 2009 have been assessed and judged against the criteria used by HSE to decide if a proposed major hazard installation is incompatible with the surrounding population. On the basis of this exercise, there are no safety grounds for advising against this application

In order to explain this assessment process in more detail it is appropriate to consider each classification of dangerous substances in turn. Firstly the toxic substances have been assessed by considering a range of accidents where the substance is released following a loss of containment. The dispersion of the toxic vapour is then assessed under a range of different weather conditions and the downwind distance to a dangerous toxic dose is predicted. The risks from all of these accident events are then added together. Secondly substances classified as oxidising have been considered in respect of their potential to undergo an explosion reaction and the effects of the overpressure from such an event have been assessed. The major accidents involving flammable substances are dominated by the consequences of an event resulting in sudden loss of containment of the storage tanks which would lead to a fire involving a pool of burning liquid. Flammable substances contained within buildings have also been considered in terms of their potential to form a flammable cloud of vapour which could ignite causing an explosion. Finally those substances that are only classified as dangerous to the environment have not been assessed for acute harm to people following a major accident event. The reason for this is that B10 substances have properties that lead to them being classified as dangerous to the environment. They do not have properties that relate to acute harm to people

in the event of a release during a major accident. HSE advice on hazardous substances consent applications is given in respect of the potential for major accidents to cause harm to people. The Environment Agency have the responsibility for giving advice taking into account the potential harm to the environment.

We can provide the following additional information to explain how HSE has assessed the hazards and risks from the dangerous substances in the revised application June 2009. In general terms HSE uses the approach described below to determine the type of hazard present and therefore what assessment is necessary:

i) What substances are present:

what category / classification are they (hence associated hazards)

in what quantities,

what is the physical form (solid, liquid, gas etc),

where are they located on the site.

do they require assessment from HSE (see the comment on B10 substances above)

ii) What is the means of storage:

fixed vessel, or

moveable container,

are these in the open or indoors (for example in a process plant or warehouse)

are there any safeguards (for example bunds to contain liquid spills or segregation from other substances)

iii) How is the substance used on site, for example in chemical processes:

this gives an indication of possible hazards from reactions and associated accident scenarios

From the above HSE employs a range of computer programs to model possible scenarios to determine hazard ranges.

Hazard ranges - Injury criteria:

Potential injuries may arise from the following effects: thermal radiation injuries from fires; overpressure (blast) effects from explosions; and the harmful effects of inhalation of toxic substances dispersed downwind from the site. When judging compatibility HSE uses the concept of 'dangerous dose' for defining injury

criteria, this is a level of exposure which has the following effects and is a lower level of harm than fatality:

- severe distress to almost everyone
- a substantial fraction requires medical attention
- some people are seriously injured
- any vulnerable people might be killed

The hazard ranges or risk distances are then plotted onto the 3 zone map for the site and used to check for any incompatible development.

Note:

i) in the absence of specific detail or where there is uncertainty over predicted consequences or frequencies then a cautious approach is used by using values towards the upper end of the range.

ii) risk / hazard distances are measured from the location of the stored dangerous substances and not from the site boundary.

iii) in the recent application only relatively small quantities of substances are requested and these are mainly located in areas of the site separated from residential areas.

The three zones on the map show the contours for the following residual risk levels:

- outer zone contour is 0.3 CPM dangerous dose;
- middle zone contour is 1 CPM dangerous dose; and
- inner zone contour is 10 CPM dangerous dose.

The residual risk of fatality at any point is at a lower frequency than the residual risk of receiving a dangerous dose. For example, the 10 CPM residual risk of dangerous dose is approximately equivalent to a residual risk of fatality of 4 CPM. This is comparable to the annual risk of being killed at work for low risk work activities such as the service industries.

HSE assessed the residual risks arising from the additional substances classified as toxic that are proposed to be stored on site as defined in the June 2009 application. The total residual risks from these additional substances have been assessed to be less than 0.3 CPM dangerous dose at the nearest point of the site boundary. This is lower than the level of risk that HSE uses to judge that a risk is incompatible with surrounding population. As explained earlier the residual risk of fatality would be lower than this at approximately 0.1 CPM. This is a very low level of risk and is broadly comparable to the individual risk per year of being killed by lightning in the UK.

HSE has also compared the additional residual risk from the hazardous substances in the June 2009 application with the existing level of residual risk from the hazardous substances consent entitlement. As a result of the very low level of risk associated with the additional substances there will be **no change to the residual risk contours** used by HSE to provide land use planning advice. As a result there would be **no change to the HSE consultation zones**. On this basis **the additional level of risk is very low and HSE would not advise against granting the hazardous substances consent on safety grounds**.

I have checked with my colleagues who have responsibility for inspecting the Bayer Cropscience site. They have confirmed that they have not received any complaints from residents in respect of smells from the site. They have not received any notifiable dangerous occurrences at the site and there is no ongoing enforcement action being taken by HSE.'

**The following additional advice on the process of assessment undertaken has been provided by the Environment Agency:**

'Environmental permit:

The facility holds an Environmental Permit issued by the Environment Agency for the manufacture of agrochemical active ingredients. There is also the manufacture of some chemical intermediates, veterinary active ingredients in addition to a plant for the formulation of agrochemical active ingredients.

Determination of the permit involved a consultation process which includes consultation with organisations such as the local authority, Health & Safety Executive, Health Protection Agency, local sewerage undertaker, Food Standards Agency and Natural England, in addition to public consultation.

A copy of the Environmental Permit (including the application documents) and any subsequent variations are available on public registers held by the local authority and ourselves. A Decision Document for the permit application is available on request.

Any request to alter the way that the site operates is subject to a variation of their Environmental Permit (or a formal notification where the change is minor). As part of that variation, the company is obliged to provide a full H1 assessment. The H1 assessment provides an environmental impact assessment of the emissions from any site, covering issues such as odour, noise & vibration, environmental accidents and fugitive emissions to air & water. The operator must employ 'Best Available Techniques' for operations undertaken on site, which can be found in the relevant 'sector guidance note'.

In the case of storage of hazardous substances, the operator will provide full details of the storage facilities to be used and the containment systems, which will be in place when the plant is operational. This will be based on an environmental risk assessment which in turn is reflective of our H1 guidance and the standards specified in the sector guidance note.

We are currently determining an application to vary the permit held. This includes an environmental risk assessment. This application has been sent to Norwich City Council for consultation/public register purposes. [...]

**Control of Major Accident Hazards (COMAH):**

The above facility is also covered by the COMAH Regulations 1999. These regulations are jointly administered by the Health & Safety Executive and the ourselves. Any change to inventory will be included in the safety case.

The Health & Safety Executive is responsible for assessing risk to individuals and we look at aspects relating potential environmental incidents.

**Odours:**

With reference to the odours relating to the site, there are strict limits set on the levels of emissions from all parts of the site and these are monitored by the operators and checked as necessary by ourselves.

The Agency is responsible for the regulation of the site under the Environmental Permit Regulations as a Part A1 process and as such would react to any complaints received from local residents about odours/emissions from the site. However these odours/emissions may not be related only to the storage of the chemicals listed in the hazardous substances consent application but to their wider use throughout the site.

Any complaints about odours from the site should be reported to the Agency via the emergency number 0800 807060 where they will be recorded, passed to the relevant officer for investigation with feed back on the investigation given directly to the complainant if requested.'

**Case officer's assessment:**

The site exists as a chemical plant on the edge of the city and has done so for some considerable time. The application seeks to increase the, already substantial, number of hazardous substances stored and used on the site and has been fully assessed by specialist advisors as to the appropriateness of such a change.

The assessment of the HSE that 'the risks to the surrounding population arising from the proposed operation(s) are so small that there are no significant reasons, on safety grounds, for refusing Hazardous Substances Consent' has been explained in more detail and the conclusion reached by them has been justified.



The EA have also explained in some detail the level of control that exists through the Environmental Permitting process and the factors that they would need to take into account in assessing a proposal to vary the Permit in relation to possible impact on the environment. Although the site lies close to Sites of Nature Conservation Interest and Sites of Special Scientific Interest in the Wensum river valley to the south and west of the application site, in the absence of any objections from Natural England, the proposal is considered to be unobjectionable.

Whilst it is acknowledged that the additional advice provided by the HSE and the EA may not have fully satisfied the local ward members and that concerns may still exist about the existence of the site and its operations, it is suggested that these concerns would need to be weighed against the specialist technical advice received from the consultees on the application.

The perception of risk needs to be taken into consideration in determining the application, but the weight that is given to those concerns should be carefully considered against the weight given to the statutory consultation responses from the specialist advisors.

In policy terms, the proposal is considered acceptable. The advice provided by the HSE and EA indicate that the proposal can be considered to meet the criteria of policies EP3 and EP5.

In relation to policy EMP7, the text of the Local Plan states: 'Certain employment sites are occupied primarily by single large employers. These are important firms, employing considerable numbers of people and the main objective of this Plan will be to maintain their position and provide for any appropriate level of expansion which is feasible within their sites.' It is suggested that, taking into account the details of the application and the responses received in relation to it, the proposal would represent an appropriate level of expansion which is feasible within the site.

## **CONCLUSION**

Taking into account the policy context as outlined above and all other material considerations, it is considered that, the small increase in residual risk to health and the environment that would result from the approval of the application, taking into account the existing and proposed future use of the site, together with the existing and proposed land uses around the site, is a tolerable one and that the presence of the hazardous substances as proposed would be an appropriate land use of the application site.

## **RECOMMENDATION**

**GRANT HAZARDOUS SUBSTANCES CONSENT** subject to the following conditions:

1. The Hazardous Substance(s) shall not be kept or used other than in accordance with the application particulars provided in Form 1, nor outside the area(s) marked for storage of the substance(s) on the plan which formed part of the application.
2. Storage of substances in fixed vessels is limited to those storages as indicated in Table C of the application form and as shown on Drawing No. 22416, provided with the application.

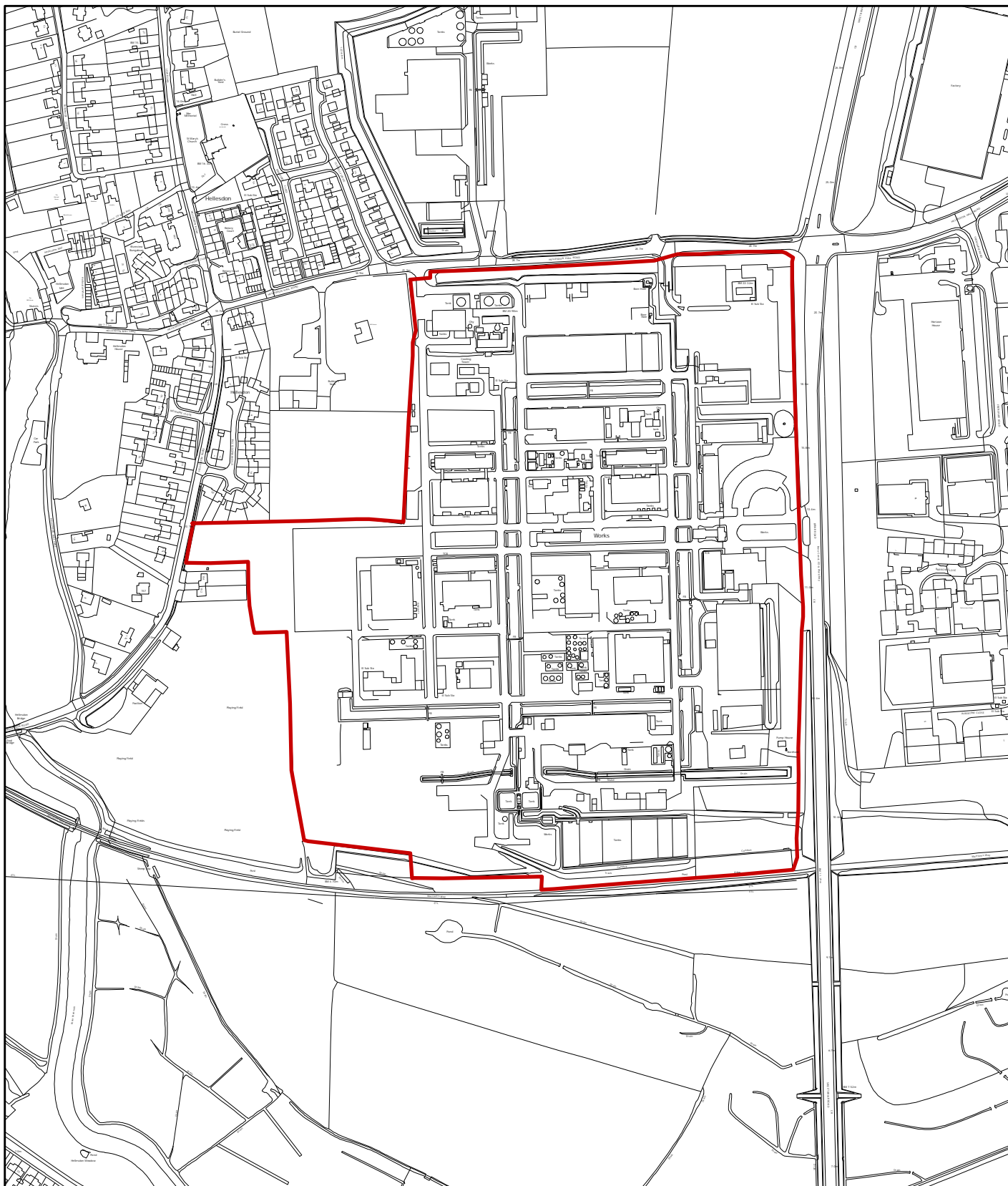
### **Informatives:**

The applicants are advised that the following matters will need to be addressed with respect of the separate regulatory regime administered by the Environment Agency:

1. Any facilities, above ground, for the storage of oils, fuels or chemicals shall be provided with adequate, durable secondary containment to prevent the escape of pollutants. The bunded area shall be designed, constructed and maintained in order that it can contain a capacity not less than 110% of the total volume of all tanks or drums contained therein.
2. All filling points, vents, gauges, and sight glasses should be bunded. Any tank overflow pipe outlets shall be directed into the bund. Associated pipework should be located above ground and protected from accidental damage.
3. There shall be no gravity or automatic discharge arrangement for bund contents. Contaminated bund contents shall not be discharged to any watercourse, land or soakaway. The installation must, where relevant, comply with the Control of Pollution (Oil Storage) (England) Regulations 2001 and the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) Regulations 1991 and as amended 1997.
4. Site operators should ensure that there is no possibility of contaminated water entering and polluting surface or underground waters
5. Only clean, uncontaminated surface water should be discharged to any soakaway, watercourse or surface water sewer.

### **Reason for Approval:**

Taking into account PPS 1, PPS 9, PPS 23 and Annex 1 to PPS 23, East of England Plan policy ENV7 and the City of Norwich Replacement Local Plan 2004 saved policies EP3, EP5 and EMP7 and all other material considerations, it is considered that, the small increase in residual risk to health and the environment that would result from the approval of the application, taking into account the existing and proposed future use of the site, together with the existing and proposed land uses around the site, is a tolerable one and that the presence of the hazardous substances as proposed is an appropriate land use of the application site.



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Planning Application No- 09/00124/H

Site Address - Bayer Crop Science Ltd, Sweet Briar Road

Scale - 1:5000



**NORWICH**  
City Council

DIRECTORATE OF REGENERATION  
AND DEVELOPMENT

