Application SCR evaluation template

| Name of activity, address and NGR | Mars Petcare. Shrewsbury Avenue, Peterborough, CAMBS, PE2 7BY. NGR TL 18015 95872. | |
|---------------------------------------|--|--|
| Document reference of application SCR | Application Site Report (ASR), AMEC. Ref: 11421rr050i3. | |
| Date and version of application SCR | 2004. | |

| 1.0 Site details | | | |
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| Response | | | |
| (Specify what information is needed from the applicant, if any) | | | |
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| Site details have been provided within the following two reports: | | | |
| Masterfoods Peterborough, PPC. Site Closure Plan. Entec UK Limited. February 2006. | | | |
| Mars Petcare UK Ltd – Peterborough Site Surrender. Surrender Site Condition Report. May 2014. | | | |
| The main elements of these comprised: | | | |
| > site setting including site layout and drainage plans, geographical site | | | |
| location, a description of the processes carried out identification of on-site hazards and a risk assessment table | | | |
| zoning of the site to highlight which site areas are potentially at more | | | |
| risk of pollution due to the type of infrastructure located there (i.e; diesel storage tanks) | | | |
| mitigation measures for decommissioning in the form of specific inhouse written procedures | | | |
| Conceptual Site Model (CSM) that included the site's geology, | | | |
| hydrogeology, hydrology results from baseline condition intrusive investigation. | | | |
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| 2.0 | 2.0 Condition of the land at permit issue | | | |
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| Has the applicant provided the following information as required by the application SCR template? | | Response (Specify what information is needed from the applicant, if any) | | |
| a) b) c | Environmental setting including geology, hydrogeology and surface waters Pollution history including: pollution incidents that may have affected land historical land-uses and associated contaminants visual/olfactory evidence of existing contamination evidence of damage to existing pollution prevention measures Evidence of historic contamination (i.e. historical site investigation, assessment, remediation and verification reports (where | Yes, the Applicant has provided this information within: Masterfoods Peterborough, PPC. Site Closure Plan. Entec UK Limited. February 2006. Mars Petcare UK Ltd – Peterborough Site Surrender. Surrender Site Condition Report. May 2014. Entec UK Limited, on behalf of the Applicant Masterfoods Limited, provided a Site Closure Plan in 2006 which included site baseline data from an investigation targeted around the areas which were most at risk from operational pollution e.g: around fuel storage and chemical tanks. This evidenced that | | |
| d) | available) Has the applicant chosen to collect baseline reference data? | detectable levels of certain determinands were present at the site and the potential for historical ground contamination. | | |

| 3.0 Permitted activities | | |
|---|---|--|
| Has the applicant provided the following information as required by the application SCR template? | Response (Specify what information is needed from the applicant, if any) | |
| a) Permitted activities b) Non-permitted activities undertaken at the site | a) The Environment Agency determined that the Installation comprised the following activities as listed in Part 1 of Schedule 1 to the PPC Regulations at the time of determination: S6.8 A(1)(d)(i) – treating and processing of materials for the production of food products from animal raw materials (other than milk) at plant with a finished production capacity of more than 75 tonnes per day. S5.3 A(1)(c)(i) – primary effluent treatment plant. b) The following non-permitted activities were also undertaken at the site listed as directly associated activities as per the above Regulations requirements: storage and handling of chilled meat slurry, cereals, cleaning materials and other raw materials gas fired process drying for drying of extruded product | |
| | storage and handling of waste materials arising from processing activities control and abatement systems for emissions to air and discharges to sewer cleaning activities for process equipment using proprietary chemical cleaning utilities and services for site supply such as stream, hot water, cooling, refrigeration, electricity and compressed air. | |

3.0(a) Environmental Risk Assessment

The H1 environmental risk assessment should identify elements that could impact on land and waters, cross-referenced back to documents and plans provided as part of the wider permit application.

The original ASR identified 'Substance of Concern' at the site (Table 2.1 in the 2014 Surrender Report). Summary tables of pollution sources (Table 3.1), infrastructure 'risks' (Table 3.2) and site plans showing the 'zoning' of the site with regards to potential risk from potential contamination sources are given in the report 'Mars Petcare UK Ltd – Peterborough Site Surrender. Surrender Site Condition Report. May 2014'.

| 3.0(b) Will the pollution prevention measures protect land and groundwater? (Conceptual model) | | | |
|--|--|--|--|
| Are the activities likely to result in pollution of land? | Using the CSM for the site, Entecs report from 2006 identifies above and below ground structures that, during the site's operational phase as well as at the time of site decommissioning, have the potential to cause pollution of land and water bodies. It was concluded that there was little likelihood of pollution arising from the operation of the installation provided that it was operated and maintained correctly. | | |
| For dangerous and/or hazardous substances only, are the pollution prevention measures for the relevant activities to a standard that is likely to prevent pollution of land? | Yes. To ensure the continued effectiveness of pollution prevention measures to protect the land the Operator was required to implement and operate under a Site Protection and Monitoring Programme, the design of which was reported to the Environment Agency (Design Site Protection and Monitoring Plan (SPMP), AMEC, 16642rr007i2, 2005). | | |

| Application SCR decision summary | Tick relevant decision |
|--|--|
| Sufficient information has been supplied to describe the condition of the site at permit issue; or | Reference data was not collected during the ASCR in 2004 but background reference data was collected in 2006. The 2006 data identified hydrocarbon contamination in the vicinity of the fuel storage area. |
| Pollution of land and water is unlikely | No – see above |
| Date and name of reviewer: | Jim Branson 8/7/14 |

Operational phase SCR evaluation template

| 4.0 Changes to the activities | | | | |
|---|--|--|--|--|
| Have there been any changes to the following during the operation of the site? | Response (Specify what information is needed from the applicant, if any) | | | |
| a) Activity boundariesb) Permitted activitiesc) "Dangerous substances" used or produced | a) No. b) S6.8 A(1)(d)(i) – treating and processing of materials for the production of food products from animal raw materials (other than milk) at plant with a finished production capacity of more than 75 tonnes per day. S5.3 A(1)(c)(i) – primary effluent treatment plant. c) Yes. Listed in Tables 2.1 and 3.1 in 'Mars Petcare UK Ltd – Peterborough Site Surrender. Surrender Site Condition Report. May 2014'. | | | |

5.0 Measures taken to protect land

Has the applicant provided evidence from records collated during the lifetime of the permit, to show that the pollution prevention measures have worked? Yes. As part of the SPMP the Operator has maintained inspection records of the sites activities in line with their Environmental Management System (EMS). These record the existence of pollution prevention measures, their adequacy and any recorded spills are leaks.

6.0 Pollution incidents that may have impacted on land and their remediation

applicant Has the provided evidence to show that any pollution incidents which have taken place during the life of the permit and which may have impacted on land or water have been investigated and remediated (where necessary)?

No leaks or spills were identified during the site maintenance inspections.

However, within the report 'Mars Petcare UK Ltd – Peterborough Site Surrender: Site Investigation Report – Total Petroleum Hydrocarbons (TPH), March 2014' reference is made to a hydrocarbon leak at the site. A remediation contractor (Bowman (Cambs) Ltd) was commissioned to remediate a fuel leak but no further detail has been provided.

Reports from Bowmans indicate that the hydrocarbon test results on soils samples taken from three trial pits in the leak affected area were below the laboratory detection limited. However, trial pits excavated on 07 October 2013 by AMEC in the same area encountered heavily impacted ground. AMEC have seen some of the Bowmans reports and recommend further information is obtained including details of the backfill material. 600 tonnes of backfill material was used to fill the void after over excavation of the ground affected by the leak.

7.0 Soil gas and water quality monitoring

Where soil gas and/or water quality monitoring has been undertaken, does this demonstrate that there has been no change in the condition of the land? Has any change that has occurred been investigated and remediated?

A site investigation was undertaken by AMEC (Mars Petcare UK – Peterborough Site Surrender, Post Closure Reference Data Report, 11 November 2013) to validate the baseline data collected and reported in the Entec UK Limited Site Closure Plan in 2006. It was agreed with Mars and the EA to replicate the sampling methodology from 2006.

The ground investigation works were undertaken on 01 August 2013 and 07 October 2013. No notable deterioration in the ground conditions have occurred since the permit issue.

An additional investigation reported in 'Mars Petcare UK Ltd – Peterborough Site Surrender: Site Investigation Report – Total Petroleum Hydrocarbons (TPH), March 2014' was undertaken to investigate and substantiate evidence of hydrocarbon impacts on the ground.

The investigation was undertaken on 07 October 2013 comprising trial pitting using a JCB 3CX in areas identified as potentially affected by hydrocarbon contamination from the baseline report data as well as operational land use.

Soil log descriptions, a CSM, human health generic assessment, conclusions and recommendations were all included within this report. The recommendations are:

- after demolition an additional investigation in the vicinity of TP2 and TP3 is undertaken to establish potential hydrocarbon contamination as the initial intrusive investigation hit obstructions at shallow depths within the trial pits
- botain further information from the remediation contractor (Bowman (Cambs) Ltd) who were commissioned to remediate a fuel leak at the site.

Surrender SCR Evaluation Template

8.0 Decommissioning and removal of pollution risk

Has the applicant demonstrated that decommissioning works have been undertaken and that all pollution risks associated with the site have been removed? Has any contamination of land that has occurred during these activities been investigated and remediated?

Yes. The Surrender Site Condition Report documents that all substances were removed from site prior to the demolition works. This included wastes as well as re-useable materials such as chemicals and fuels. Pipework and tanks were washed and cleaned prior to removal and Table 3.3 provides details of the substances removed.

Demolition was completed on 11 March 2014 with no spills and removal of all hazardous materials. Anglian Water were notified of the cessation of trade effluent discharges from site and consented to the change on 01 November 2013. A site inspection by the EA Area officer has also confirmed that the site has been decommissioned as above.

Also refer to comments from the Consultant in Section 8 of the completed Surrender Site Condition Report, May 2014.

9.0 Reference data and remediation (where relevant)

Has the applicant provided details of any surrender reference data that they have collected and any remediation that they have undertaken?

Yes - The 'historical' hydrocarbon leak area still has elevated contamination all be it at lower concentrations than identified in 2006.

10.0 Statement of site condition

Has the applicant provided a statement, backed up with evidence, confirming that the permitted activities have ceased, decommissioning works are complete and that pollution risk has been removed and that the land and waters at the site are in a satisfactory state?

Historical localised hydrocarbon contamination was identified in 2006 around the tanks and was reportedly related to an underground pipe leak in 2002 i.e. before Permit issue.

The SSCR has confirmed the presence of this contamination at lower levels suggesting that no additional releases have occurred since the original occurrence.

However, because the reference data was collected 2 years after permit issue it would be useful to have sight of the Bowman's 2002 report before the surrender to confirm the date and area of contamination.

| Surrender SCR decision summary | Tick relevant decision |
|---|------------------------|
| Sufficient information has been supplied to show that pollution risk has been removed and that the site is in a satisfactory state – accept the application to surrender the permit; or | No |
| Insufficient information has been supplied to show that pollution risk has been removed or | Yes – Just |
| that the site is in a satisfactory state – do not accept the application to surrender the permit. | need to see |
| The following information must to be obtained from the applicant before the permit is | the Bowman's |
| determined: | report from |
| | 2002 |
| Date and name of reviewer: | 9/7/14 |
| | Jim Branson |