

Application SCR evaluation template

Name of activity, address and NGR	<p>Sulzer Electro Mechanical Services (UK) Limited</p> <p>Eastfield Facility Cayton Low Road Eastfield Scarborough YO11 3BZ</p> <p>NGR: TA 04105 83636</p>
-----------------------------------	--

Document reference of application SCR	Site condition report: Sulzer Bootham Engineers, Scarborough
---------------------------------------	--

Date and version of application SCR	23 rd June 2017
-------------------------------------	----------------------------

1.0 Site details

Has the applicant provided the following information as required by the application SCR template?

Site plans showing site layout, drainage, surfacing, receptors, sources of emissions/releases and monitoring points

Yes – within document entitled “Site Closure Report”, dated 23/07/2017.

2.0 Condition of the land at permit issue

To be completed by GWCL officers
(Receptor)

Has the applicant provided the following information as required by the application SCR template?

- a) Environmental setting including geology, hydrogeology and surface waters
- b) 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
- c) Evidence of historic contamination (i.e. historical site investigation, assessment, remediation and verification reports (where available))
- d) Has the applicant chosen to collect baseline reference data?

See supporting document ‘*Preliminary Soil and Groundwater Assessment of Dowding and Mills Engineering Sites, URS on behalf of Sulzer, July 2002*’ (Annex A to operator’s SCR).

The operator has stated that no investigation data is available for the site during the course of the permit or prior to transfer of the permit.

Table 2.1 in operators SCR details the pre-permitted soil site condition, and Table 2.2 in operators SCR details the pre-permitted groundwater condition.

See section 2 of Operator’s SCR for full details/ conclusions.

3.0 Permitted activities

(Source)

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

The operator notes that the permitted activities are set out in the permit EPR/LP3336ZN, issued

3.0 Permitted activities (Source)	
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)
03/07/2013. A copy of the permit has been included with the surrender application (see Annex B of operator's SCR).	

3.0(a) Environmental Risk Assessment (Source)
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.
See document entitled " <i>Final Phase I Environmental Review</i> " dated May 2008, submitted with original SCR (available on EDM under Application and supporting documents (28/02/2013).

3.0(b) Will the pollution prevention measures protect land and groundwater? (Conceptual model)	
Are the activities likely to result in pollution of land?	
No, see above.	
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, see 3.0(a)

Application SCR decision summary	Tick relevant decision
Sufficient information has been supplied to describe the condition of the site at permit issue	✓
Information is missing- the following information must be obtained from the applicant. (Advise the permitting team on what additional information is needed)	
Pollution of land and water is unlikely; or	
Pollution of land and water is likely (Advise the permitting team on what additional controls/checks may be necessary)	
Historical contamination is present- advise operator that collection of background data may be appropriate	
Date and name of reviewer:	

Operational phase SCR evaluation template

Sections 4.0 to 7.0 may be completed annually in line with normal record checks.

4.0 Changes to the activities

(Source)

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 boundaries
- b) Permitted activities
- c) "Dangerous substances" used or produced

There have been no changes to the activity boundaries or permitted activities during the operation of the site.

There have been no changes to dangerous substances used or produced.

The permit was transferred from Dowding and Mills (UK) Limited to Sulzer Electro Mechanical Services (UK) Limited on 16/05/17. There have been no other changes.

5.0 Measures taken to protect land

To be completed by EM/PPC officers

(Pathway)

Has the applicant provided evidence from records collated during the lifetime of the permit, to show that the pollution prevention measures have worked?

See Section 5 of operator's SCR.

The operator states that the plant, whilst in operation was maintained in a satisfactory condition and that all pollution prevention measures such as the contained nature of the manufacturing operation and secondary containment of all drainage, bulk liquid and solid chemicals at the site minimised the potential for pollution of land due to the permitted activities.

There was no periodic monitoring undertaken during the lifetime of the permit. The operator has used baseline data collected in 2002 to compare to data collected in February 2017 (see supporting document "*ERM Scarborough permit surrender. Soil and Groundwater Condition Report, February 2017*") to assess any pollution. However, the operator has also noted that the locations used in the 2002 report were not located where site works were taking place, so new boreholes had to be drilled. Where no data was available, the results were screened against current generic assessment criteria.

The operator concluded that overall, solvent concentrations identified in 2002 have naturally degraded over time, resulting in reduced concentrations currently recorded at the site, with only breakdown products increasing in concentration which provide evidence that natural degradation is occurring, which indicated that land quality has overall improved at the site since 2002 and should continue to do so.

An elevated concentration of TPH in groundwater was detected in BH9 adjacent to the former oil sump and drains. No comparative value is present from the baseline investigation, however, concentrations have increased from November 2016 to February 2017. It is considered that this concentration may have resulted from decontamination activities undertaken in the grinding shop. The site has now been decommissioned and the area is beneath the current floor slab and given down gradient wells are indicating negligible impact to wider controlled water resources, these elevated concentrations are considered to be localised and not representative of a significant deterioration in land quality. As such the operator considers that no further action is necessary to improve land quality.

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

To be completed by EM/PPC officers

(Sources)

Has the applicant 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)?

The operator has stated that there was no release of chemicals associated with the permitted activities.

7.0 Soil, gas and water quality monitoring (where relevant)

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?

The operator states that a ground investigation was undertaken in 2002 that is being used to mark the pre-permit baseline condition of the site. In addition, the operator undertook voluntary remediation in 2008 to remove TPH and Chromium impacts from soils in the vicinity of the unsurfaced yard and former effluent treatment plant. Details regarding the validation of these works is included in Annex E of the operator's SCR along with the site post closures SCR.

No further ongoing soils, groundwater or surface water monitoring has been undertaken during the permit lifetime until November 2016, when a post closure site investigation was undertaken to record the final conditions of the soil and groundwater at the site following decommissioning (see section 9).

Surrender SCR Evaluation Template

If you haven't already completed previous sections 4.0 to 7.0, do so now before assessing the surrender.

8.0 Decommissioning and removal of pollution risk

To be completed by EM/PPC officers

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?

Manufacturing operations ceased mid-2016. The operator followed their own Site Closure Plan (see Annex C to operator's SCR "*Sulzer Site Closure Plan*").

The operator retained decommissioning plans, site clean-up requirements, waste transfer notes, method statements and photographs documenting the various activities that were carried out during decommissioning. The operator states that the decommissioning and decontamination is complete and pollution risks from permitted activities have been removed. The process was completed at the end of November 2016.

The decommissioning team included personnel from Sulzer's with experience of both the plant and equipment processes. The operator adopted a specific process for decommissioning the various plant areas (see Annex B to the operator's SCR).

The main decommissioning/decontamination areas were:

- Stand by Power Room
- Compressor Room
- White Metaling
- Grinding Shop
- Welding Shop
- Chemical Store
- Machine Shop
- Metal Spray Shop
- Plating Shop
- Plating Shop External

Decommissioning involved taking the production plant out of active service and ensuring all process chemicals or other hazardous materials were safely removed and appropriately disposed of. All equipment was removed from site (see Annex B to operator's SCR for full details).

Unwanted items and general wastes were removed from all areas of the site. This included; paperwork and miscellaneous officer furniture, miscellaneous plant, equipment and apparatus specified as no longer required, glass ware, personal protective equipment, items on walls with no future use, whiteboards, empty barrels and tools.

Site staff and sub-contractors cleaned all the production buildings of all raw materials, products and wastes with potential to cause pollution. Any waste materials remaining were stored in the waste compound prior to collection by a licensed waste contractor. This has been documented in Annex D to the operator's SCR.

Excess raw materials were sold to another potential user, or designated as waste and disposed of appropriately (see Annex D and E to operator's SCR).

Waste relating to the production activities were disposed of in accordance with existing practices and via existing licensed third parties. Further waste was generated through the decommissioning process, specifically from washing and slushing of equipment. Aqueous based waste with a low level of contamination (i.e. waster rinses including cleaning agents, scrubber liquors and general wash-down water) were removed by the contractors responsible for the clean-up.

The operator states that there are no materials of machinery with the potential to cause pollution present on the site. The operator has provided photos of the site as it stands (see Annex G to the operator's SCR).

The site was vacated at the end of 2016.

9.0 Reference data and remediation (where relevant)

To be completed by GWCL officers

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

GWCL 25.10.17

We have reviewed the information provided in the Site Closure Report (Sulzer Bootham Engineers, Scarborough, 23rd June 2017). Historical soil and groundwater contamination is present at the site. However, the recent site investigation does not indicate that the operations carried out during the lifetime of the permit have caused further pollution of the land. Remediation would therefore not be required as part of the permit surrender.

The operator should be encouraged to undertake voluntary site investigation, risk assessment and remediation work to ensure that contamination does not pose an unacceptable risk to the environment, people and property.

NGwilliam Yorkshire GWCL 25.10.17

(Reference data for soils must meet the requirements of policy 307_03 Chemical test data on contaminated soils – quantification requirements). If the surrender reference data shows that the condition of the land has changed as a result of the permitted activities, the applicant will need to undertake remediation to return the condition of the land back to that at permit issue. You should not require remediation of historic contamination or contamination arising from non-permitted activities as part of the permit surrender.

No periodic monitoring was undertaken during the lifetime of the permit. Additional land quality data has been collected as part of the operator's site closure process.

This was done to obtain up to date soil and groundwater data to compare against 2002 baseline data and determine whether there had been any deterioration in soil or groundwater quality during the permitted period. None of the 2002 boreholes were located during the site works and all monitoring locations were re-drilled.

Investigation locations were located based on a combination of site coverage of potential source areas and duplication of selected investigation locations advanced as part of the site investigation in 2002 to enable a comparison with the baseline conditions.

A summary of the rationale for the selection of each of the boreholes locations originally in 2002 is detailed in the operator's SCR (section 9).

Soil and groundwater samples were obtained from each exploratory point based on field observations and scheduled for a similar suite of parameters as adopted in 2002 as part of the baseline investigation, with samples scheduled for a suite of chemical analysis including the following parameters:

- Metals (Arsenic, Barium, Beryllium, Boron, Cadmium, Chromium III, Chromium IV, Copper, Lead, Mercury, Nickel, Selenium, Vanadium and Zinc)
- TPH-CWG
- VOCs
- pH
- TOC

Two rounds of groundwater monitoring were undertaken in November 2016 and in February 2017 to confirm the groundwater condition in the shallow superficial aquifer and to compare against groundwater monitoring data obtained in 2002.

All boreholes were scheduled for analysis during the sampling rounds, however baseline data was only available for two, and sample data for one. Samples were scheduled for the following suite of determinants:

- Metals (Arsenic, Barium, Beryllium, Boron, Cadmium, Chromium III, Chromium IV, Copper, Lead, Mercury, Nickel, Selenium, Vanadium and Zinc)
- TPH-CWG
- VOCs
- pH

Soil and groundwater samples were submitted to an accredited laboratory.

The operator concluded that overall, solvent concentrations identified in 2002 have naturally degraded over time, resulting in reduced concentrations currently recorded at the site., with only breakdown products increasing in concentration which provide evidence that natural degradation is occurring, which indicated that land quality has overall improved at the site since 2002 and should continue to do so.

An elevated concentration of TPH in groundwater was detected in BH9 adjacent to the former oil sump and drains. No comparative value is present from the baseline investigation, however, concentrations have increased from November 2016 to February 2017. It is considered that this concentration may have resulted from decontamination activities undertaken in the grinding shop. The site has now been decommissioned and the area is beneath the current floor slab and given down gradient wells are indicating negligible impact to wider controlled water resources, these elevated concentrations are considered to be localised and not representative of a significant deterioration in land quality. As such the operator considers that no further action is necessary to improve land quality.

10.0a Statement of site condition

To be completed by EM/PPC officers

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?

The operator has confirmed that:

- The permitted activities at the site have ceased
- Manufacturing operations ceased mid 2016
- The decontamination and decommissioning is complete and pollution risks from permitted activities have been removed, as evidenced by the processes outlines in Sections 8.1 and 8.2 of their SCR. This process was completed at the end of November 2016

The operator states that is has fulfilled all the requirements for surrender of the permit EPR/LP3336Z.

See section 8 above for further details.

10.0b Statement of site condition

To be completed by GWCL officers

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?

The operator has confirmed that:

- The closure SCR that the operator submitted has compared current ground investigation data with that detailed in the 2002 SCR and has concluded that there has been no incremental ground pollution over the life of the permit from 2002 to 2016 as a result of the permitted activities.

The operator states that is has fulfilled all the requirements for surrender of the permit EPR/LP3336ZN

See section 9 above for further details.

Surrender SCR decision summary

To be completed by GWCL officers and returned to NPS

**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

✓

Insufficient information has been supplied to show that pollution risk has been removed or that the site is in a satisfactory state – do not accept the application to surrender the permit. The following information must to be obtained from the applicant before the permit is determined:

Date and name of reviewer