

PLANNING APPLICATION FOR DETERMINATION BY THE LTGDC

ADDENDUM REPORT

UDC CASE NUMBER:	LTGDC-08-094-FUL	DATE MADE VALID:	02/06/2008
APPLICATION NUMBER:	U0005.08/LBHG	TARGET DATE:	01/09/2008

APPLICANT:	Thames Water Utilities Ltd
AGENT:	Adams Hendry Consulting Ltd
PROPOSAL:	New sewage sludge advanced digestion facility, including refurbishment of existing digesters. Sludge reception tanks; sludge thickening plant, thermal hydrolysis plant, anaerobic digestion plant, sludge dewatering and storage facilities, gas holders, combined heat and power plant, waste gas burner, odour control plant and associated works and structures; pipework; internal access roads; relocation of leachate reception facilities.
LOCATION:	Riverside Sewage Treatment Works, Ferry Lane North, off Lamson Road, Rainham, Essex RM13 8RL

1. LONDON BOROUGH OF HAVERING COMMENTS

1.1 The London Borough of Havering reported the application to its Regulatory Services Committee of 20 November 2008 where it was concluded to raise no objection to the proposals subject to the following being satisfied:

- 1) *That should the LTGDC grant planning permission, the Development Corporation enter into a legal agreement with the applicant to:*
 - a) *Ensure adequate odour controls, management, monitoring and contingency plan are incorporated, maintained and strictly adhered to.*

- b) *Provide land for a potential future public right of way along the eastern area of land from 'Ferry Lane North', south through to the A13.*
- c) *Pay the sum of £10,000 towards a local employment scheme such as Job Net or equivalent.*
- d) *Ensure additional recruitment is sought through Job Net or a similar scheme.*

2) *That it be subject to the conditions outlined below:*

- *Time limit (3 years)*
- *Accordance with plans*
- *CEMP (Construction Environmental Management Plan) to be submitted*
- *Scheme of materials*
- *Compliance with renewable energy details*
- *Assessment and remediation as may be required for land contamination*
- *Flood storage compensation and surface water drainage works*
- *Ecological mitigation and controls*
- *Flood lighting*
- *Noise*
- *Odour management*
- *Hours of construction*

2. PEDESTRIAN ACCESS

2.1 Paragraph 9.12.3 of the Committee Report recommends that a S106 legal agreement secures provision for a future pathway along the edge of the site on land within Thames Water's ownership.

2.2 The London Borough of Havering has requested that the land be provided as a public right of way. The applicant, however, has advised that they are only willing to make the land available for a permissive route which will be subject to Thames Water having the ability to control access to, or to close, the route for reasons associated with maintenance of their operational assets or to protect their security.

2.3 Discussions in respect of this matter are still ongoing.

2.4 It is recommended that Paragraph 11(3)(b) of the Committee Report be amended to read:

"to secure land for a potential future footpath open to the public along the eastern boundary of the site from 'Ferry Lane North', south through to the A13".

3. GLA COMMENTS

- 3.1 The GLA has confirmed that the comments made in their Stage 1 Report (see Section 5 of LTGDC's Committee Report) have now been satisfactorily addressed by the applicant. This is an officer level opinion only and it does not constitute a formal decision by the Mayor.
- 3.2 Design for London has advised that they 'feel that there is scope to have a landscape design that responds to the site and its context - for instance, framing views from the train or hiding certain buildings, as well as mitigating environmental impact and providing, where possible, enhanced biodiversity and habitats.' It is recommended that an informative be included on any planning permission granted that requires the applicant to consult with Design for London in relation to the discharge of Condition 11 relating to landscaping.
- 3.3 The applicant has advised the GLA that they are proposing to capture roof run-off as part of the wetland habitat to be created in the western lagoon in place of green/brown roofs/walls. The GLA has requested that these measures be secured. Accordingly, it is recommended that Condition 8 as stated in the Committee Report be amended as follows:

*8. No development shall commence until a surface water drainage scheme for the site, based on sustainable drainage principles and an assessment of the hydrological and hydro geological context of the development, has been submitted to and approved in writing by the Local Planning Authority. The scheme shall subsequently be implemented in accordance with the approved details before the development is completed. **Such scheme shall include details of how surface water run-off from the roofs of the buildings hereby permitted will be directed to the new wetland feature in the western lagoon.***

***Reasons:** To reduce the risk of flooding to the proposed development, future occupants and elsewhere in accordance with Policy DC51 (Water Supply, Drainage and Quality) of London Borough of Havering's Development Control Policies Development Plan Document and Policy 4A.14 (Sustainable Drainage) of the London Plan (adopted February 2008).*

4. PROPOSED AMENDMENTS TO RECOMMENDATION AND LIST OF CONDITIONS

- 4.1 The recommendation and list of conditions set out in the Committee Report dated 12 February 2009 have been reviewed by Counsel at the request of the London Thames Gateway Development Corporation.
- 4.2 Following receipt of Counsel's advice some amendments are proposed to

the recommendation and list of conditions set out in the Committee Report, as follows:

Paragraph 11(3) (Recommendation) - page 24

DELETE the whole of sub-paragraph (a). {This is now proposed to be dealt with by condition - see new Condition 37 below.}

Condition 18

AMEND reference to “Condition 25” to read “Condition 26”

Paragraph 12 (Conditions and Reasons) - page 25-36

INSERT new Condition 19 (immediately after Condition 18 with all subsequent conditions re-numbered) as follows:

“19. In the event that any of the monitoring instruments fitted pursuant to Condition 18 show that hydrogen sulphide concentrations in emissions from odour control units and/or the sludge cake building stack exceed concentration levels described in Condition 18 on three or more occasions within any period of 30 days, then the developer will notify the Local Planning Authority and take appropriate remedial action within a further 30 days to bring hydrogen sulphide concentrations back within the levels specified in Condition 18.

Reasons: To ensure emissions stay within acceptable limits.”

Condition 25 (now Condition 26)

AMEND reference to “Condition 26” to read “Condition 27”

Condition 26 (now Condition 27)

AMEND reference to “Conditions 25 and 27” to read “Conditions 26 and 28”

Condition 27 (now Condition 28)

AMEND reference to “Condition 25” to read “Condition 26”

Condition 29 (now Condition 30)

AMEND to read as follows:

“30. In the event that the sludge cake store (and sludge press/centrifuge) building extract stack odour emission rate exceeds the 17,750 ou_E/s emission limit in any test, the developer shall carry out a re-test within 120 days (such test to comprise three outlet odour samples) and in the event that such re-test shows an emission rate exceeding 17,750 ou_E/s, then the developer will install an appropriate abatement system, in accordance with details to be submitted to and approved by the Local Planning Authority prior to installation, to meet the emission rates modelled (maximum emissions rate of 17,750 ou_E/s) within 12 months of the exceedance. Such abatement equipment will then be subject to a commissioning test to demonstrate compliance within 30 days of commissioning. Subsequently any such abatement plant installed as a result of this requirement will be subject to at least annual olfactometric testing to demonstrate compliance with the emission rate limit in the same way as the other odour control units (as at Condition 26 above) and there will also be the same requirement for remedial measures in the event of any failures as set out for abatement plants at Condition 28. The Local Planning Authority shall be given at least 7 days notice of all testing and will be supplied with the results of all testing within 30 days.

Reasons: To ensure emissions stay within acceptable limits.”

Condition 33 (now Condition 34)

DELETE whole condition (except the Reason for it) and **INSERT:**

“34. The sludge plant development shall not be commissioned until the developer shall have undertaken a programme of sampling of sewage contained in the PSTs in order to establish a mean concentration of dissolved sulphide (un-ionised). The details of such programme shall be submitted to and approved in writing by the Local Planning Authority in advance of its commencement, but shall involve at least monthly sampling for a period of at least 12 months. The results of such sampling shall be submitted to the Local Planning Authority within 30 days of completion of the programme, together with the calculations establishing the mean concentration (“the baseline mean concentration”).”

Condition 34 (now Condition 35)

DELETE whole condition (except the Reason for it) and **INSERT:**

“35. Following completion of the commissioning of the sludge plant development, the developer shall undertake a further programme of sampling of the sewage and sludge return liquors contained in the PSTs in order to establish the mean concentration of dissolved sulphide (un-ionised) on the same basis as the programme approved under Condition 34 and at the same frequency and duration. The results of such sampling shall be supplied to the Local Planning Authority within 30 days of completion of the programme, together with calculations establishing the mean concentration.”

Condition 35 (now Condition 36)

DELETE whole condition (except the Reason for it) and **INSERT**:

“36. If the mean concentration calculated in accordance with Condition 35 above shall exceed by 20% or more the baseline concentration calculated in accordance with Condition 34, the developer shall immediately implement such measures as may be necessary to ensure that such mean concentrations are reduced so as not to exceed by 20% or more the baseline mean concentration and shall undertake further sampling to establish to the satisfaction of the Local Planning Authority that this has been achieved.”

New Condition

INSERT new condition as follows:

“37. No later than 28 days prior to the commissioning of the sludge plant development, the developer shall submit to the Local Planning Authority for comment an Odour Management Plan (OMP) to deal with odour generally and showing how Conditions 18-36 (inc) of this permission will be met. The developer shall have due regard to any comments made by the Local Planning Authority in finalising the OMP. Once finalised, the developer shall comply with the OMP. The Local Planning Authority shall be given not less than 28 days notice of any proposed amendments to the OMP and the developer shall have due regard to any comments the Local Planning Authority may make. The Local Planning Authority shall be provided with a copy of the initial OMP and all amended versions thereof within 7 days of adoption.

Reasons: To enable the Local Planning Authority to monitor odour control activities within the development.”

5. REVISED RECOMMENDATION, LIST OF CONDITIONS, AND INFORMATIVES

5.1 In accordance with the proposed amendments stated above, the revised recommendation, list of conditions, and informatives are set out in full below as they should now read:

11. RECOMMENDATION

That the application be delegated to the Director of Planning to APPROVE subject to:

- (1) any direction from the Mayor of London, and
- (2) the conditions listed below (with any amendment that might be necessary up to the issue of the decision), and
- (3) the completion of a S106 Agreement:
 - a) to secure land for a potential future footpath open to the public along the eastern boundary of the site from 'Ferry Lane North', south through to the A13;
 - b) to secure a contribution of £10,000 towards a local employment scheme such as Job Net or an equivalent; and
 - c) to ensure recruitment is sought through Job Net or a similar scheme.

12. CONDITIONS AND REASONS

1. The development to which this permission relates must be commenced not later than three years from the date of this permission.

Reasons: To comply with the requirements of Section 91 of the Town and Country Planning Act 1990 (as amended by Section 51 of the Planning and Compulsory Purchase Act 2004).

2. All works are to be completed in accordance with the following Drawing Numbers:

Figure 1 – Location Plan

Figure 2a – Riverside STW Ownership Area and Planning Application Plan

Drawing No. 9RTG-YY-02001 Rev A – Existing Site Plan and Environs

Drawing No. 9RTG-YY-02000 Rev A – Existing Site Plan

Drawing No. 9RTG-YY-02006 Rev B – Proposed Site Plan

Drawing No. 9RTG-YY-02005 Rev A – Contractors Working Area

Drawing No. 9RTG-YY-02010 Rev B – Site Plan Sludge Digestion

Drawing No. 9RTG-YY-02011 Rev B – Sludge Digestion Plant Sheet 1 of 2

Drawing No. 9RTG-YY-02012 Rev B – Sludge Digestion Plant Sheet 2 of 2

Drawing No. 9RTG-YY-02015 Rev A – Relocated Leachate Reception Facilities and Odour Control Unit Number 2

Drawing No. 9RTG-YY-02007 Rev B – Planning Application – Sections 1

Drawing No. 9RTG-YY-02008 Rev B – Planning Application – Sections 2

Drawing No. 9RTG-YY-02061 Rev B – CHP Building External Elevations

Drawing No. 9RTG-YY-02060 Rev B – CHP Building Plan and Sectional Elevations

Drawing No. 9RTG-YY-02032 Rev B – Dewatering and Sludge Storage Building External Elevations
Drawing No. 9RTG-YY-02031 Rev B – Dewatering and Sludge Storage Building Plan and Elevations
Drawing No. 9RTG-YY-02030 Rev B – Dewatering and Sludge Storage Building Plan
Drawing No. 9RTG-YY-02055 Rev A – Digester MCC
Drawing No. 9RTG-YY-02080 Rev A – Leachate Reception Facilities Office
Drawing No. 9RTG-YY-02090 Rev A – Typical Detail of Odour Control Units 1 & 2.

No further drawings apply, unless otherwise approved in writing by the Local Planning Authority.

Reasons: The Local Planning Authority consider it essential that the whole of the development is carried out and that no departure whatsoever is made from the details approved, since the development would not necessarily be acceptable if partly carried out or carried out differently in any degree from the details submitted. Also, in order that the development accords with Policy DC61 (Urban Design) of London Borough of Havering's Development Control Policies Development Plan Document and Policy 4B.1 (Design Principles for a Compact City) of the London Plan (adopted February 2008).

3. No development shall commence until the developer has submitted for the written approval of the Local Planning Authority:

a) A Phase I (Site Investigation) Report. If the Phase I Report confirms the possibility of a significant risk to any sensitive receptors, a Phase II (Site Investigation) Report shall be submitted to and approved in writing by the Local Planning Authority. This Phase II (Site Investigation) Report is an intrusive site investigation including factors such as chemical testing, quantitative risk assessment and a description of the sites ground conditions. An updated Site Conceptual Model should be included showing all the potential pollutant linkages and an assessment of risk to identified receptors.

b) A Phase III (Risk Management Strategy) Report if the Phase II Report confirms the presence of a significant pollutant linkage requiring remediation. The report will comprise of two parts:

Part A - Remediation Scheme which will be fully implemented before it is first occupied. Any variation to the scheme shall be agreed in writing with the Local Planning Authority in advance of works being undertaken. The Remediation Scheme is to include consideration and proposals to deal with situations where, during works on site, contamination is encountered which has not previously been identified. Any further contamination shall be fully assessed and an appropriate remediation scheme submitted to the Local Planning Authority for written approval.

Part B - Following completion of the remediation works in accordance with the Remediation Scheme a Validation Report must be submitted demonstrating that

the works have been carried out satisfactorily and remediation targets have been achieved.

c) If during development works any contamination should be encountered which was not previously identified and is derived from a different source and/or of a different type to those included in the contamination proposals then revised contamination proposals shall be submitted to the Local Planning Authority; and

d) If during development work, site contaminants are found in areas previously expected to be clean, then their remediation shall be carried out in line with the agreed contamination proposals.

For further guidance see the London Borough of Havering's leaflet titled, 'Land Contamination and the Planning Process'.

Reasons: To protect those engaged in construction and occupation of the development from potential contamination in accordance with Policy DC53 (Contaminated Land) of London Borough of Havering's Development Control Policies Development Plan Document and Policy 4A.33 (Bringing Contaminated Land Into Beneficial Use) of the London Plan (adopted February 2008).

4. No development shall commence until a scheme has been submitted to and approved in writing by the Local Planning Authority making provision for a Construction Method Statement to control the adverse impact of the development on the amenity of the public and nearby occupiers. The Construction Method statement shall include details of:

- a) parking of vehicles of site personnel and visitors;
- b) storage of plant and materials;
- c) dust management controls;
- d) measures for minimising the impact of noise and, if appropriate, vibration arising from construction activities;
- e) predicted noise and, if appropriate, vibration levels for construction using methodologies and at points agreed with the Local Planning Authority;
- f) scheme for monitoring noise and, if appropriate, vibration levels using methodologies and at points agreed with the Local Planning Authority;
- g) siting and design of temporary buildings;
- h) scheme for security fencing/hoardings, depicting a readily visible 24-hour contact number for queries or emergencies;
- i) details of disposal of waste arising from the construction programme, including final disposal points. The burning of waste on the site at any time is specifically precluded.

And the development shall be carried out in accordance with the approved scheme and statement.

Reasons: To protect residential amenity in accordance with Policy DC61 (Urban Design) of London Borough of Havering's Development Control Policies Development Plan Document and Policy 4B.1 (Design Principles for a Compact City) of the London Plan (adopted February 2008).

5. No development shall commence until samples of all materials to be used in the external construction of the building(s) have been submitted to and approved in writing by the Local Planning Authority and thereafter the development shall be constructed with the approved materials.

Reasons: To ensure that the appearance of the proposed development will harmonise with the character of the surrounding area in accordance with Policy DC61 (Urban Design) of London Borough of Havering's Development Control Policies Development Plan Document and Policy 4B.1 (Design Principles for a Compact City) of the London Plan (adopted February 2008).

6. Prior to the occupation of any part of the development, the renewable energy system shall be installed in strict accordance with the agreed details and operational to the satisfaction of the Local Planning Authority and maintained in good working order. The development shall achieve a minimum 20% carbon savings through the use of renewable energy technologies.

Reasons: In the interests of energy efficiency and sustainability in accordance with the London Borough of Havering's Interim Planning Guidance on Sustainable Design and Construction and Policies 4A.4 (Energy Assessment) and 4A.7 (Renewable Energy) of the London Plan (adopted February 2008).

7. No development shall commence until details of the flood storage compensation scheme have been submitted to and approved in writing by the Local Planning Authority. The scheme shall be completed in accordance with the approved plans.

Reasons: To prevent the increased risk of flooding to the site and third parties in accordance with Policy DC51 (Water Supply, Drainage and Quality) of London Borough of Havering's Development Control Policies Development Plan Document and Policy 4A.14 (Sustainable Drainage) of the London Plan (adopted February 2008).

8. No development shall commence until a surface water drainage scheme for the site, based on sustainable drainage principles and an assessment of the hydrological and hydro geological context of the development, has been submitted to and approved in writing by the Local Planning Authority. The scheme shall subsequently be implemented in accordance with the approved

details before the development is completed. Such scheme shall include details of how surface water run-off from the roofs of the buildings hereby permitted will be directed to the new wetland feature in the western lagoon.

Reasons: To reduce the risk of flooding to the proposed development, future occupants and elsewhere in accordance with Policy DC51 (Water Supply, Drainage and Quality) of London Borough of Havering's Development Control Policies Development Plan Document and Policy 4A.14 (Sustainable Drainage) of the London Plan (adopted February 2008).

9. No development shall commence until a scheme for the provision and management of a buffer zone alongside the Havering New Sewer has been submitted to and approved in writing by the Local Planning Authority. Thereafter the development shall be carried out in accordance with the approved scheme and any subsequent amendments shall be agreed in writing with the Local Planning Authority. The scheme shall include:

- plans showing the extent and layout of the buffer zone
- details of the planting scheme (for example, native species)
- details demonstrating how the buffer zone will be protected during development and managed/maintained over the longer term
- details of any footpaths, fencing, lighting etc.

Reasons: Development that encroaches on watercourses has a potentially severe impact on their ecological value. This is contrary to Government policy in Planning Policy Statement 1 (Delivering Sustainable Development) and Planning Policy Statement 9 (Biological and Geological Conservation), and to the UK Biodiversity Action Plan.

10. Details of any floodlighting shall be submitted to and approved in writing by the Local Planning Authority before any of the buildings are first occupied and the works shall be carried out in accordance with the approved details.

Reasons: To ensure that light spillage does not adversely affect amenity and nature conservation interests.

11. No development shall commence until there has been submitted to and approved in writing by the Local Planning Authority a scheme of hard and soft landscaping, which shall include indications of all existing trees and shrubs on the site, and details of any to be retained, together with measures for the protection in the course of development. All planting, seeding or turfing comprised within the scheme shall be carried out in the first planting season following completion of the development and any trees or plants which within a period of 5 years from completion of the development die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of a similar size and species, unless otherwise agreed in writing by the Local Planning Authority.

Reasons: In accordance with Section 197 of the Town and Country Planning Act 1990 and Policy DC61 (Urban Design) of London Borough of Havering's Development Control Policies Development Plan Document, and to enhance the visual amenities of the development.

12. No goods or materials shall be stored on the site in the open above a height of 4 metres without the prior consent of the Local Planning Authority in writing.

Reasons: To protect the visual amenity of the local area in accordance with Policy DC61 (Urban Design) of London Borough of Havering's Development Control Policies Development Plan Document and Policy 4B.1 (Design Principles for a Compact City) of the London Plan (adopted February 2008).

13. No development shall commence until details of wheel scrubbing/wash down facilities to prevent mud being deposited onto the public highway during construction works have been submitted to and approved in writing by the Local Planning Authority. The approved facilities shall be permanently retained and used at relevant entrances to the site throughout the course of construction works.

Reasons: In order to prevent materials from the site being deposited on the adjoining public highway, in the interests of highway safety and the amenity of the surrounding area, and in order that the development accords with Policies DC32 (The Road Network) and DC61 (Urban Design) of London Borough of Havering's Development Control Policies Development Plan Document.

14. Before the development hereby permitted is brought into use, a scheme for any new plant or machinery associated with the development shall be submitted to the Local Planning Authority for their written approval, to achieve the following standard. Noise levels (expressed as the equivalent continuous sound level, $\{L_{Aeq} \{1hr\}\}$) when calculated at the boundary with the nearest noise sensitive premises shall not exceed $L_{A90} -5dB$.

Reasons: To protect local amenity in accordance with Policy DC55 (Noise) of the London Borough of Havering's Development Control Policies Development Plan Document and Policy 4A.20 (Reducing Noise and Enhancing Soundscapes) of the London Plan (adopted February 2008).

15. No construction works or deliveries into the site shall take place other than between the hours of 08.00 to 18.00 on Monday to Friday and 08.00 to 13.00 on Saturdays unless agreed in writing with the Local Planning Authority. No construction works or deliveries shall take place on Sundays, Bank or Public Holidays unless otherwise agreed in writing by the Local Planning Authority.

Reasons: To protect residential amenity, and in order that the development accords with Policy DC61 (Urban Design) of London Borough of Havering's Development Control Policies Development Plan Document.

16. No development shall commence until details of the surface water drainage works have been submitted to and approved in writing by the Local Planning Authority. The scheme shall be completed in accordance with the approved plans.

Reasons: To prevent the increased risk of flooding to third parties, to the site itself, to improve water quality and to enhance biodiversity in accordance with Policy DC51 (Water Supply, Drainage and Quality) of London Borough of Havering's Development Control Policies Development Plan Document and Policy 4A.14 (Sustainable Drainage) of the London Plan (adopted February 2008).

17. No soakaways shall be constructed in contaminated ground.

Reasons: To prevent pollution of the local water environment in accordance with Policy DC51 (Water Supply, Drainage and Quality) of London Borough of Havering's Development Control Policies Development Plan Document and Policy 4A.14 (Sustainable Drainage) of the London Plan (adopted February 2008).

18. Prior to the commencement of operation of the development hereby approved there shall be fitted to the exhausts from all odour control units and the sludge cake store building stack hydrogen sulphide monitoring instruments with a resolution of 1ppb. These monitoring systems will measure and record outlet hydrogen sulphide concentrations at a frequency of not less than 1 reading per hour and the records of monitoring shall be maintained for a period of at least 24 months, and will be available for inspection by the Local Planning Authority. The instruments shall be maintained in working order.

The emissions monitoring systems shall be "calibrated", by reference to the annual olfactometric tests described in Condition 26, so that the operators can set "alarm" hydrogen sulphide concentration levels for each of the odour control and stack emission releases to warn of deteriorations in abatement performance. The resulting hydrogen sulphide calibration calculations and emission limits shall be updated on an annual basis as further odour concentration data becomes available.

Reasons: To enable the emissions from the development to be properly monitored so that any necessary remedial action can be taken promptly if emissions exceed target levels.

19. In the event that any of the monitoring instruments fitted pursuant to Condition 18 show that hydrogen sulphide concentrations in emissions from odour control units and/or the sludge cake building stack exceed concentration levels described in Condition 18 on three or more occasions within any period of 30 days, then the developer will notify the Local Planning Authority and take

appropriate remedial action within a further 30 days to bring hydrogen sulphide concentrations back within the levels specified in Condition 18.

Reasons: To ensure emissions stay within acceptable limits.

20. The vehicle access doors to the sludge cake store shall be kept closed at all times except when vehicles are entering or exiting the building.

Reasons: To minimise the escape of odorous air.

21. The sludge cake store will be maintained at all times (other than when vehicles are entering or exiting) under negative pressure. The developer shall demonstrate to the Local Planning Authority at least annually that this is the case through testing and monitoring. The Local Planning Authority shall be given at least 7 days notice of all testing and will be supplied with the results of all testing within 30 days.

Reasons: To minimise the escape of odorous air.

22. No temporary or permanent sludge/sludge cake liming, or any other mechanical or chemical treatment involving raw or digested sludge cake shall be carried on within the sludge cake store at any time without the written agreement of the Local Planning Authority.

Reasons: To minimise odour emissions from the development.

23. No temporary or permanent sludge/sludge cake liming, or any other mechanical or chemical treatment involving raw or digested sludge cake shall be carried out anywhere in Riverside Sewage Treatment Works other than as described in the application, and in any case shall only be carried out within fully enclosed and odour extracted and abated/mitigated facilities. No such sludge or sludge cake treatments will be undertaken outside or in the open.

Reasons: To minimise odour emissions from the development.

24. No sludge or sludge cake will be stored within Riverside Sewage Treatment Works on a temporary or permanent basis otherwise than within fully enclosed and odour extracted and odour abated or mitigated facilities. No sludge or sludge cake will be stored outside or in the open.

Reasons: To minimise odour emissions from the development.

25. The development shall be operated at all times such that the odour emission rates of air released from the odour control units is maintained at or below the predicted levels specified in the Odour Impact Assessment (OIA) dated May

2008 (and updates of October 2008). Emissions will be discharged to atmosphere through stacks as described (stack heights and air speeds) in the OIA.

Reasons: To minimise odour emissions from the development and their off-site impact in the local area.

26. The developer shall at least annually carry out olfactometric tests of the emissions from all odour control unit stacks, and the sludge cake (and sludge centrifuge/pressing) building stacks within the development in accordance with the methodology set out in Condition 27. The first such test shall be carried out within 30 days of first operation of the development. The Local Planning Authority shall be given at least 7 days notice of all testing and will be supplied with the results of all testing within 30 days.

Reasons: To ensure emissions stay within acceptable limits.

27. All tests pursuant to Condition 26 and Condition 28 shall be conducted in accordance with the following methodology. Three representative odour samples of treated/outlet air will be collected whilst the sewage and sludge treatment plants are operating under normal conditions. The odour samples collected shall be analysed in accordance with the BSEN 13725 standard techniques and an outlet odour concentration will be calculated as the geometric mean of the individual results for each of the three samples. Emission rates for each stack will be calculated by multiplying the outlet odour concentration by a measured air flow rate. The Local Planning Authority shall be given at least 7 days notice of all testing and will be supplied with the results of all testing within 30 days.

Reasons: To ensure emissions stay within acceptable limits.

28. In the event that the results of a test pursuant to Condition 26 or this condition shows that emissions are exceeding the levels set out in the OIA dated May 2008 (and updates of October 2008) accompanying the application for the development, the developer shall immediately take such steps as shall reasonably be required to ensure that emission levels are no higher than those set out in the OIA. Following the taking of such steps the developer shall immediately demonstrate compliance by further olfactometric testing (as provided for in Condition 26) and supply the Local Planning Authority with the results of the test as required by Condition 26.

Reasons: To ensure emissions stay within acceptable limits.

29. Emissions from the sludge cake store (and sludge press/centrifuge) building extract stack shall be exhausted to atmosphere at a velocity of at least 15 metres per second as set out in the OIA and with an odour emission rate not exceeding 17,750 ou_E/s. The developer shall arrange for initial commissioning

tests for outlet odour concentrations in the stack within three months of the plant becoming operational and thereafter annually. These tests shall be based on triplicate samples of outlet air collected whilst the plant is operating under normal conditions with at least 10 days sludge cake throughput stored in the building. Samples shall be analysed in accordance with the BSEN 13725 standard techniques. The Local Planning Authority shall be given at least 7 days notice of all testing and will be supplied with the results of all testing within 30 days.

Reasons: To ensure emissions stay within acceptable limits.

30. In the event that the sludge cake store (and sludge press/centrifuge) building extract stack odour emission rate exceeds the 17,750 ou_E/s emission limit in any test, the developer shall carry out a re-test within 120 days (such test to comprise three outlet odour samples) and in the event that such re-test shows an emission rate exceeding 17,750 ou_E/s , then the developer will install an appropriate abatement system, in accordance with details to be submitted to and approved by the Local Planning Authority prior to installation, to meet the emission rates modelled (maximum emissions rate of 17,750 ou_E/s) within 12 months of the exceedance. Such abatement equipment will then be subject to a commissioning test to demonstrate compliance within 30 days of commissioning. Subsequently any such abatement plant installed as a result of this requirement will be subject to at least annual olfactometric testing to demonstrate compliance with the emission rate limit in the same way as the other odour control units (as at Condition 26 above) and there will also be the same requirement for remedial measures in the event of any failures as set out for abatement plants at Condition 28. The Local Planning Authority shall be given at least 7 days notice of all testing and will be supplied with the results of all testing within 30 days.

Reasons: To ensure emissions stay within acceptable limits.

31. If abatement plant is installed on the Cake Store (and sludge centrifuge/pressing) building exhaust, and if the outlet odour emissions exceed the emission limit of 17,750 ou_E/s in any commissioning or annual performance test, then the plant shall be repaired or rectified and re-tested within 60 days of the failed test unless the 12 month period for installation of an abatement plant has been triggered.

Reasons: To ensure emissions stay within acceptable limits.

32. The existing inlet channels leading from the pumping station to the detritors and the sludge collection chambers serving the primary sedimentation tanks shall be covered and emissions from them extracted to an odour control unit (the "Inlet Pumping Station OCU").

Reasons: To ensure emissions stay within acceptable limits.

33. The developer shall ensure that the Primary Settlement Tanks (PSTs) are operated at all times after the proposed development is completed with a sludge depth not exceeding 30 centimetres.

Reasons: To ensure reliable operation of the plant and to minimise odour emissions from the development.

34. The sludge plant development shall not be commissioned until the developer shall have undertaken a programme of sampling of sewage contained in the PSTs in order to establish a mean concentration of dissolved sulphide (un-ionised). The details of such programme shall be submitted to and approved in writing by the Local Planning Authority in advance of its commencement, but shall involve at least monthly sampling for a period of at least 12 months. The results of such sampling shall be submitted to the Local Planning Authority within 30 days of completion of the programme, together with the calculations establishing the mean concentration (“the baseline mean concentration”).

Reasons: To establish a baseline of current odour emissions so that the effects of any increased emissions after the development can be assessed. To provide an objective means to establish if mitigation measures will be required to control any increase in odour emissions from the PSTs as a result of the return of sludge centrate and filtrate from the proposed sludge plant.

35. Following completion of the commissioning of the sludge plant development, the developer shall undertake a further programme of sampling of the sewage and sludge return liquors contained in the PSTs in order to establish the mean concentration of dissolved sulphide (un-ionised) on the same basis as the programme approved under Condition 34 and at the same frequency and duration. The results of such sampling shall be supplied to the Local Planning Authority within 30 days of completion of the programme, together with calculations establishing the mean concentration.

Reasons: To enable the Local Planning Authority to assess any change in odourous dissolved sulphide concentrations.

36. If the mean concentration calculated in accordance with Condition 35 above shall exceed by 20% or more the baseline concentration calculated in accordance with Condition 34, the developer shall immediately implement such measures as may be necessary to ensure that such mean concentrations are reduced so as not to exceed by 20% or more the baseline mean concentration and shall undertake further sampling to establish to the satisfaction of the Local Planning Authority that this has been achieved.

Reasons: To ensure emissions stay within acceptable limits.

37. No later than 28 days prior to the commissioning of the sludge plant

development, the developer shall submit to the Local Planning Authority for comment an Odour Management Plan (OMP) to deal with odour generally and showing how Conditions 18-36 (inc) of this permission will be met. The developer shall have due regard to any comments made by the Local Planning Authority in finalising the OMP. Once finalised, the developer shall comply with the OMP. The Local Planning Authority shall be given not less than 28 days notice of any proposed amendments to the OMP and the developer shall have due regard to any comments the Local Planning Authority may make. The Local Planning Authority shall be provided with a copy of the initial OMP and all amended versions thereof within 7 days of adoption.

Reasons: To enable the Local Planning Authority to monitor odour control activities within the development.

13. INFORMATIVES

1. 11 No. private fire hydrants are required to be installed for fire fighting purposes. These are detailed in the plan provided by the London Fire Brigade and are to conform to BS 750:1984 and be indicated with a hydrant indicator plate conforming to BS 3251:1976.

The London Fire Brigade has a policy of free annual inspections/tests. Please contact Mark Lyne on 0208 555 1200 for more information.

Access for the fire brigade vehicles should comply with Section 16 of ADB 16.5, Tables 19 and 20. Please call K.E. Davies for more information on 0207 587 2133.

2. There are high pressure gas lines and electricity lines which are in near vicinity / cross the site. Please contact National Grid for information on working in near proximity to these prior to works commencing. Further details are attached to the guidance note provided by National Grid. Please contact Sarah Robinson on 0800 7312961 for more information.

3. Under the Water Resources Act 1991 and the Thames Region Land Drainage Byelaws 1981, the prior written consent of the Environment Agency is required for any works or structures in, over, under or within 8 metres of the top of the bank of the Havering New Sewer, designated a 'main river'. This is irrespective of any planning permission granted.

The buffer zone needs to be 8 metres, measured from bank top of the Havering New Sewer, for the whole extent of the site. Bank top is defined as the point at which the bank meets normal land levels / the edge of the wetland as designated on a site plan. This zone should be without structures (except for those shown on the plan 9RTG-YY-02010 Rev B), hard standing, footpaths, fences or overhanging development. The buffer zone needs to be designed and managed to develop this natural character and planted with locally native shrubs and grasses, of UK genetic provenance.

4. The applicant is requested to consult with Design for London in respect of matters concerning Condition 11 (Landscaping).

CASE OFFICER: Adele Williamson