Meeting of Executive Member for Neighbourhood Services and Advisory Panel **15 October 2008**

Report of the Report of the Director of Neighbourhood Services

Statutory direction to English Local Authorities: Regulation of air pollution from Crematoria

Summary

1. The Council has received a further statutory direction from DEFRA (Department of Food, Environment and Rural affairs) under the Environmental Permitting (England and Wales) Regulations 2007, This direction requires the Council, by 31st October 2008, to notify DEFRA of their intentions with respect to the fitting of mercury abatement equipment, the number of cremations covered by the abatement, and the steps in place to have it operational by 2012.

2. The Council had already previously confirmed it's intentions in June 2006, but DEFRA has indicated that the national response to the previous direction was *"….patchy… and …there remains uncertainty amongst cremator operators as to their obligations and a lack of clarity on the delivery and timing of the necessary improvements".* Hence the need to further respond to DEFRA in respect of a formal declaration.

3. Members are requested to review the previous decision and confirm their approval to install mercury abatement equipment and respond to the statutory direction accordingly.

Background

4. Mercury is a product contained in the flue gases from crematoria resulting from the vaporisation of dental fillings. The government has estimated that mercury emissions from crematoria would rise by two thirds by 2020 if no measures were taken to abate the emissions, and that this source will be the biggest single contributor to mercury emissions in this country.

5. Emissions from crematoria are released from relatively low flue stacks that may lead to fairly localised dispersion of pollutants. However it is recognised that the problem arising from mercury emissions is from long-range transportation and for this reason national targets for abatement have been set.

6. Crematoria have been regulated under Part 1 of the Environmental Protection Act since 1991. Substantial improvements to emissions have been made over the subsequent years applying statutory guidance PG5/2. These requirements did not however address emissions of mercury.

7. This omission has been taken into account by the Department of Environment, Food and Rural Affairs (DEFRA) who introduced an update on the process guidance in the form of PG5/2(04) and AQ1(05) note on 'Control of Mercury Emissions from Crematoria'. The aim of the new requirements is for the crematoria industry to reduce the emissions of mercury to the atmosphere by 50% before the end of 2012.

8. DEFRA have confirmed that the industry may adopt several options to achieving the 50% reduction prior to 2012. The options available being:

    - Operators may upgrade their existing crematoria
    - Operators may "emissions trade" (see paragraphs 9 -13 below) or
    - Operators may partly upgrade and trade – effectively a combination - to achieve 50% reduction of mercury emissions.
    - A single crematorium can abate 50% of its cremations and not trade.
    - Private sector companies can trade within the sector provided they can provide evidence of achieving 50% reduction in mercury emissions.
    - Local authorities with 2 or more crematoria can trade internally provided they can provide evidence of achieving 50% reduction in mercury emissions.
    - Two or more operators could form their own trading arrangement provided they can provide evidence of achieving 50% reduction in mercury emissions.
    - Operators may trade (buy or sell abated cremations) through the CAMEO burden sharing scheme or any other scheme that may be developed.

9. CAMEO (Cremation Abatement of Mercury Emissions Organisation) is a burden sharing agreement, which has been established by The Federation of British Cremation Authorities.

10. The aim of the scheme is to safeguard the industry in which 23% of existing crematoria cannot physically install abatement plant and to minimise additional costs for the bereaved.

11. It has been agreed that CAMEO will form a trading company in 2011, commence to shadow burden sharing in 2012 and go live in 2013. All partners will contribute to the scheme and those that abate more than 50% of their cremations will receive income from the combined revenue.

12. Cremation authorities were required to advise their regulator under the Environmental Protection Act no later than 1 June 2006 whether they will be installing mercury abatement equipment or opting for burden sharing (i.e. emissions trading). York notified their regulator following the June EMAP, of their intention to install mercury abatement equipment (see paras 19 and 20)

13. If following notification in June 2006, DEFRA believe that not enough crematoria have made the decision to install abatement equipment and a 50% reduction of mercury emissions cannot be demonstrated, then an alternative option of targeting those crematoria with the highest number of cremations will be applied by DEFRA. It has been estimated that this would be 30% of all crematoria and would likely include York.

Mercury Abatement Equipment

14. The development of mercury abatement equipment for crematoria is somewhat new but similar technology has been used in other industries for many years. There are essentially two systems, one based on powder injection and the other on a filter bed. Both require the disposal of the contaminated spent reagent.

15. There are 4 main manufacturers of equipment and each one very similarly priced. Current average costs for installations being £250k for a single unit, £380k for a double unit or £425k for a triple unit. In addition to this capital investment, there would be additional on-going revenue operational costs, estimated to be £30k per annum.

16. All manufacturers abatement is bulky and many crematoria may have difficulty in fitting it into existing buildings and limited options to extend.

York Crematorium

17. York Crematorium has 3 cremators, which were installed in 1992. They are not fitted with mercury abatement technology. Mercury abatement equipment could be fitted to all three cremators, but this would require an extension to the existing building, with an associated build cost of approx £100k, in addition to the fitting of the arrestment plant.

18. The layout of the building is such that mercury abatement equipment could be fitted within the existing building enclosure, but only if one of the cremators was removed. This would leave the crematorium with only two cremators in operation. The crematorium is capable of operating with 2 cremators by altering work patterns but it would be extremely important to have an enhanced maintenance schedule, as any unforeseen breakdown may mean that the crematorium schedule for the day would be significantly affected. The addition maintenance schedule would cost approx £15k p.a.

19. As the operator of the York Crematorium, the City of York Council was required to advise DEFRA through its regulator (the City of York Council Environmental Protection Unit) of its intentions in relation to mercury abatement by June 2006. A report was submitted to the 8th June 2006 meeting of the Executive member

for Neighbourhood Services and Advisory panel, which sought member approval to comply with the scheme.

20. At that meeting, members agreed.

- That the intention to install mercury abatement equipment be indicated to the Council's regulator (the Environmental Protection Unit) under the Environmental Protection Act.

- That the preferred option, be option D (Two cremators - see paras 22-26 below)

- That officers be instructed to proceed with obtaining costings for the approved option, which would form part of the budget submission for 2007/08.

Consultation

21. No consultation has taken place.

Options

Option A

22. To do nothing. This would place the Council in breach of its statutory obligations.

Option B

23. To seek a trading agreement through the CAMEO scheme.

This option would not require the Council to undertake capital borrowing in the near future. However should, as a result of the returns provided, burden sharing is not seen to achieve the national 50% abatement target DEFRA may decide to enforce abatement on the larger operators.

This option would not see the Council contributing directly to the greater environmental objectives, but would be paying to pollute.

An estimated cost would be £50-55k per annum.

Option C

24. Install abatement equipment to deal with 50% of cremations.

If adopted the Council would be meeting the minimum standards laid down in legislation. It would require the removal of one cremator and the installation of mercury abatement to one of the remaining two cremators.

There would be a capital cost roughly estimated to be £250k for the new equipment, an increased revenue cost of approx £15k per annum to run the new equipment. The reliance on only two cremators would require an

enhanced programme of preventative repair and maintenance to minimise the risk of breakdown. This is estimated to be £15k per annum.

No revenue could be derived from the CAMEO scheme.

Option D

25. Install abatement equipment to deal with 100% of cremations and remove one cremator, so as to install the equipment.

This option would see the Council meeting the highest targets of the government's commitment to mercury abatement and would satisfy any future legislative requirements. It would require the removal of one cremator and the installation of mercury abatement to both of the remaining two cremators. There would be a capital cost roughly estimated to be £380k for the new equipment, an increased revenue cost of approx £30k to run the equipment.

The Council could also engage in the CAMEO trading scheme and obtain a potential income of up to £55k in trading off its surplus abated cremations. The reliance on only two cremators would require an enhanced programme of preventative repair and maintenance to minimise the risk of breakdown. This is estimated to be £15k per annum.

Option E

26. Install abatement equipment to deal with 100% of cremations and retain three cremators.

This option would see the Council meeting the highest targets of the government's commitment to mercury abatement and would satisfy any future legislative requirements. It would require the building on of additional plant room at an estimated cost of up to £100k. There would also be capital cost involved of an estimated £425k to install abatement equipment to all 3 cremators. The total capital cost is estimated to be £525k. There would be an increased revenue cost of approx £45k to run the equipment. The Council could also engage in the CAMEO trading scheme and obtain a *potential* income of up to £55k in trading off its surplus abated cremations.

Analysis

27. The analysis relating to the options has been included in the options above.

Corporate Objectives

28. The original decision by members in 2006 relating to the regulation of mercury emissions supported the corporate priority to "… taking pride in the City, by improving quality and sustainability and creating a safe and clean environment…". The control of emissions will support the revised corporate priority to "…Reduce the environmental impact of council activities and encourage, empower and promote others to do the same…"

Implications

29. **Financial:** The financial implications of each of the options are estimates and have been included in this report. They are based on figures provided by the Federation of British Cremation Authorities in the guidance and information on mercury abatement. Following the June 2006 meeting, it was determined to defer capital expenditure until nearer the required deadline, and as such only estimates have been obtained.

30. The potential for this capital expenditure has been previously identified and a sum of £850k included in the medium term financial forecast for the Council. However, specific bids based on accurate costings will need to be made through the 2009/10-budget process.

31. **Human Resources (HR):** There are no HR related issues associated with this report.

32. **Equalities:** There are no equality related issues associated with this report.

33. **Legal:** The council will be in breech of it's statutory obligation if Option A is approved.

34. **Crime and Disorder:** There are no crime and disorder issues associated with this report.

35. **Information Technology (IT):** There are no IT issues associated with this report.

36. **Other:** There are no other issues associated with this report.

Risk Management

37. If Option A is approved, the council will be at risk of breeching its statutory obligation and of future operation of the crematorium.

Recommendations

38. That the Advisory Panel advise the Executive Member that:

    (a) the Council confirms to its regulator under the Environmental Protection Act (City of York Council Environmental Protection Unit) that it intends to install mercury abatement equipment to all the cremators, and

    (b) that the preferred option be either Option D or Option E as indicated in paragraph 25 and 26;

    (c) that officers proceed with obtaining accurate costings for option D and E, which will form part of the budget submission for 2009/10, and that the final decision to undertake option D or option E be made as part of the budget process.

Reason: to enable to Council to meet the highest targets of the government's commitment to mercury abatement and satisfy future legislative requirements.

Contact Details

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Report Approved ✓ **Date** 3.10.08

Specialist Implications Officers(s):

Wards Affected: **All** ✓

For further information please contact the author of the report

Background Papers:

DEFRA Process Guidance Note 5/1/(04)
DEFRA AQ notes AQ 1(05) AQ 13(05) AQ 24(05)
EMAP report 8th June 2006: Agenda item 6: Crematorium Mercury Emissions

Annexes

None

Crematorium Mercury EMAP.doc