Note: this is an <u>unofficial</u> version of the PG1/2 (95) note. This note has not been revised but the guidance itself is nevertheless extant. The note has been included within the set of more recently revised PG Notes to allow for the full set of extant Process Guidance to be available for electronic download.

Department of the Environment The Scottish Office Welsh Office PG1 / 2 (95) November 1995

# Secretary of State's Guidance Waste Oil or Recovered Oil Burners, 0.4-3 MW Net Rated Thermal Input

Processes prescribed<sup>1</sup> for air pollution control by local enforcing authorities.

NB. This Note amends and replaces PG 1/2(91), which was published in February 1991.

NB. This Note may itself be amended from time-to-time in order to keep abreast with BATNEEC. Such changes may be issued in separate guidance published by HMSO (the "UG" note series), or alternatively may be notified in the form of ad hoc additional guidance notes to local enforcing authorities and to relevant trade associations and other interested parties. Steps will be taken by the Departments to ensure that those who need to know about changes are informed; however, **it is recommended** that operators and their advisors check with their local enforcing authority whether there have been any changes before relying on this Note for the purpose of making an application or taking other significant action under the Act.

This Note is issued by the Secretary of State as a guide to local enforcing authorities on the techniques appropriate for the control of air pollution in relation to waste oil or recovered oil burners with a net rated thermal input of less than 3 MW in order to achieve the objective set down in section 7(2)(a) of the Environmental Protection Act 1990. It will also be of interest to operators of such processes. The objective in section 7(2)(a) is:

"ensuring that, in carrying on a prescribed process, the best available techniques not entailing excessive cost (BATNEEC) will be used

- (i) for preventing the release of substances prescribed for any environmental medium into that medium or, where that is not practicable by such means, for reducing the release of such substances to a minimum and for rendering harmless any such substances which are so released: and
- (ii) for rendering harmless any other substances which might cause harm if released into any environmental medium".

By virtue of section 7(5) of the Act local enforcing authorities only have control over emissions into the air under Part I of the Act.

This Note comprises guidance in relation to new and existing processes and is based on an assessment of best available techniques as qualified by the requirement not to entail excessive cost. (Background guidance on the meaning of BATNEEC is contained in General Guidance Note 1)<sup>2</sup>

This Note also (where appropriate) gives information about any directions, limits, requirements, quality standards or quality objectives which were in force on the date of publication and which must be complied with in carrying on these processes, in accordance with section 7(2)(b) and (c) of the Act.<sup>3</sup>

Section 7(1)(a) of the Act requires that the specific conditions set in an authorisation, together with the implied general condition in section 7(4), achieve all the objectives specified in section 7(2), including that in section 7(2)(a) given above.

In accordance with section 7(11), enforcing authorities are required to have regard to any guidance issued to them by the Secretary of State when determining appropriate techniques in relation to the above-mentioned objective. The Secretary of State will also treat this guidance as one of the material considerations when determining any appeals made against a local enforcing authority decision.

The guidance contained in this Note was determined after full consultation with members of the HM Inspectorate of Pollution/Local Authority Enforcement Liaison Committee (IPLA) and interested bodies. It is based on the state of knowledge and understanding of these processes, their potential impact on the environment, and the available control techniques at the time of publication. The guidance will be updated regularly to reflect changes in knowledge and understanding; however, it will not always be possible to revise the Notes quickly enough to keep in absolute step with rapid changes. Further, the guidance cannot take into account individual process characteristics, in particular location, which may on occasion influence the nature of the conditions that are included in an authorisation.

Guidance on interpretation of the terms used in this Note is provided in General Guidance Note 4 (GG4)-"Secretary of State's Guidance on Interpretation of Terms used in Process Guidance Notes".

Processes must be operated in order to protect persons at work as well as the environment, therefore conditions in the authorisation must not impose any requirement that would put at risk the health, safety or welfare of persons at work: Section 7(1) of the Act requires that no conditions are to be imposed which are designed only to secure the health of persons at work (as defined in Part I of the Health and Safety at Work etc Act 1974).

Wherever emission limits quoted in this Note *conflict with* occupational exposure limits set under the Health and Safety at Work etc Act 1974 to secure the health, safety or welfare of persons at work, the tighter limit should prevail.

#### **Revised Guidance**

1. This Note amends and replaces PGI/2(91) ("the original guidance"), which was published in February 1991. Appendix 3 contains a summary of the changes that have been made. The revised guidance should be applied in accordance with paragraphs A, B and C below (as appropriate). (There may be cases where both paragraphs A and B apply.)

A.

Where this revised guidance specifies standards or requirements higher than or (subject to paragraph B) different from those in the original guidance, upgrading of existing processes<sup>4</sup> having regard to these higher or different standards or requirements should be completed in accordance with the timetable specified in Clause 9.

Relevant authorisations should be varied (as may be necessary) having regard to the higher or different standards and the timetable in Clause 9. Any such variations should normally be able to be made as part of the review of authorisations required by section 6(6) of the Act.

- B. Where
- a) standards or requirements in the original guidance have been deleted in this revised guidance, or
- b) where this revised guidance specifies less stringent standards or requirements than those in the original guidance and the deadline for upgrading in the original guidance has been reached, relevant authorisations for existing processes<sup>4</sup> should be varied (as may be necessary) having regard to the revised guidance.

Variations to authorisations in these cases should be made as soon as reasonably practicable.

c) In respect of any new processes,<sup>4</sup> as from the first day of December 1995 standards or requirements should be included in authorisations having regard to the full standards of this revised note.

### Introduction

2. This Note refers to the combustion of waste oil or recovered oil in appliances with a net rated thermal input of up to 3 MW. Another Note (PG 1/1) has been produced on the combustion of waste oils in appliances with a net rated thermal input of less than 0.4 MW Further Process Guidance Notes have been produced for those combustion processes covered by a), b) d) and e) of the Part B definition in Appendix 1.

This Note also applies where waste oil is burned as part of a process which is prescribed for air pollution control by local enforcing authorities under other Part B process definitions in the Environmental Protection (Prescribed

Processes and Substances) Regulations 1991 - for example, mineral works-even where the net rated thermal input of the appliance is in excess of 3 MW.

- 3. These waste oil combustion processes are prescribed for local enforcing authority air pollution control. under Section 1.3 of Schedule 1 to the Environmental Protection (Prescribed Processes and Substances) Regulations 1991 (as amended). Section 1.3 is reproduced in Appendix 1.
- 4. In the context of this Note. the figure of 3 MW relates to the net rated thermal input of each appliance. Thermal input is the rate at which fuel can be burned, at maximum continuous rating, multiplied by the net calorific value of the fuel and expressed as megawatts thermal (MW th).
- 5. In the context of this Note. "process" comprises the whole process including the treating, handling and storage of any materials used in and products and wastes produced by the process.
- 6. This Note applies to all new processes, to replacement processes, to substantial changes to existing processes and the upgrading of existing processes to meet the standards of this Note.
- 7. The Departments are looking again at the measures necessary to implement EC Directive 75/439/EEC on the disposal of waste oils (as amended by 87/101/EEC). For the sake of completeness, certain of the main relevant articles of the amended directive are replicated at Appendix 4. The two directives are available in the Official journal of the European Community, reference OJ L 194, 25.7.1975, p.23., and OJ No L 42, 12.2.1987, p.43.
- 8. Section 79(10) of the Environmental Protection Act allows statutory nuisance action to be taken only in limited cases in relation to authorised processes-in particular, as regards noise nuisance. However, every Part I authorisation will implicitly impose on operators the general duty to use BATNEEC. The BATNEEC duty includes minimisation of offence to any of man's senses (although this does not cover noise because of the definition of "substance" in section 1(13) of the Act).

## **Upgrading of Existing Processes**

9. Existing processes<sup>2</sup> should he upgraded to the standards of this Note whenever the opportunity arises. The timetable for upgrading should take into account the criteria included in Articles 4, 12 and 13 of the European Community Directive on "The Combating of Air Pollution from Industrial Plants", (84/360/EEC).<sup>2</sup> Only in exceptional circumstances should upgrading be completed later than 1 October 1996.

Where the combustion of waste oil forms part of another process for local enforcing authority control, the period allowed for upgrading should be in accordance with the process guidance note for that other process.

In any event, where existing plant can meet the metal emission limits in Clause 16 below by burning waste oil of a suitable specification, and without the necessity to install additional arrestment equipment, the emission limits should be met within 1 year of the issue of the first authorisation.

10. The conditions contained in all authorisations should be reviewed by the local enforcing authority at intervals of not more than 4 years in accordance with section 6(6) of the Act.

Where complaint is attributable to operation of the process and is in the opinion of the local enforcing authority, justified or if new knowledge develops on the potential for harmful effects from emissions, immediate review of the process should be undertaken. Any new requirements and compliance time-scales shall be specified by the local enforcing authority.

## **Emission Limits and Controls**

- 11.All emissions to air, other than steam or water vapour, should be free from persistent mist. All emissions to air should be free from persistent fume and free from droplets.
- 12. The aim should be that all emissions are free from offensive odour outside the process boundary, as perceived by the local enforcing authority Inspector. <sup>5</sup>
- 13.Emissions from combustion processes should in normal operation be free from visible smoke and in any case should not exceed the equivalent of Ringelmann Shade 1 as described in British Standard BS 2742:1969.

- 14.All pollutant concentrations should be expressed at reference conditions, 273K, 101.3 kPa, 3% oxygen and dry gas. For applications in which the products of combustion are in intimate contact with process materials, such as roadstone drying, the oxygen reference should be that which corresponds to the normal operating conditions in the process concerned.
- 15. Where non-continuous monitoring of emissions is required, no result should exceed the emission concentration limits specified in Clause 16 below, except where:
- (a) data is obtained over at least 5 sampling hours in increments of 15 minutes or less, or
- (b) at least 20 results are obtained where sampling time increments of more than 15 minutes are involved,

and in these circumstances:

- (a) no more than 5% of all 15-minute mean emission concentrations should exceed the specified emission concentration limits, and
- (b) no 15-minute mean emission concentration should exceed twice the specified emission concentration limits.
- 16. Subject to Clause 15 above, no emission should exceed the following emission concentration limits where the combustion of waste oil forms part of another process for local enforcing authority control, and the net rated thermal input of the appliance is *3MW or more:*

Cadmium  $5 \text{ mg/m}^3$ Nickel  $1 \text{mg/m}^3$ Chromium) Copper ) --- total emission 1.5mg/m<sup>3</sup> Vanadium) 5mg/m<sup>3</sup> Lead 100mg/ m<sup>3</sup> Chloride (expressed as hydrogen chloride)  $5mg/m^3$ Fluoride (expressed as hydrogen fluoride) Total particulate matter (from indirect-fired applications)  $100 \text{ mg/ m}^3$ 

The emission limit for total particulate matter from direct-fired applications should be in accordance with the relevant process guidance note.

In all cases where the net rated thermal input of the appliance is *below* 3MW, no emission should exceed the following emission limits:

Lead 5 mg/ m<sup>3</sup>
Total particulate matter (from indirect-fired applications) 100 mg/ m<sup>3</sup>

For direct-fired applications below 3MW which form part of another process for local enforcing authority control, the total particulate matter emission limit from the relevant process guidance note should apply. For direct-fired applications below 3MW which do not form part of another process for local enforcing authority- control, total particulate matter emissions should not exceed 100mg/ m³.

In all cases-in order to control emission of sulphur dioxide and PCBs-the concentration of sulphur and PCBs in the fuel should not exceed 1% wt/wt and 10ppm respectively.

## Monitoring, Sampling and Measurement of Emissions

- 17. As part of proper supervision the operator should monitor emissions and make tests and inspections of the process. The need for and scope of testing and the frequency and time of sampling, will depend on local circumstances, operational practice, and the scale of operation.
- 18. Compliance with the requirements of Clause 16 above with the exception of emissions of particulate matter) should be demonstrated by calculation from an analysis of the waste oil delivered to the site. For processes

for local enforcing authority control where the net rated thermal input of the appliance is 3MW *or more*, this analysis should give details of the concentration of cadmium. nickel, chromium, copper, vanadium, lead, chlorides, fluorides. PCBs and sulphur present in the oil delivered. For processes with a net rated thermal input of *below* 3MW the analysis should give details of the concentrations of lead, sulphur and PCBs only.

Such an analysis, with the necessary calculations, should he submitted to the local enforcing authority at least once every three months where the oil supplier remains constant, and as soon as possible following a change in oil supplier. In the event of a change in oil supplier, the local enforcing authority should be notified in writing forthwith. To enable calculation of the emission to be carried out from the analysis it will be necessary to undertake annual stack gas sampling for metals, chlorides and fluorides, when an oil of known analysis is being burned, to enable the proportions of metals, chlorides and fluorides that arc retained in the appliance and subsequent arrestment plant to be established. Where percentage retention of metals, chlorides and fluorides in the appliance is found to be high, the requirement for annual testing may be dispensed with. When the percentage retention in the appliance and subsequent arrestment plant is established, usually by one or two monitoring exercises, it will be possible to calculate the maximum concentrations of metals, chlorides and fluorides which can be present in the waste oil burned, so as not to exceed the emission limits above.

- 19. Emissions of particulate matter should be continuously indicatively monitored. Instruments should be fitted with audible and visual alarms which should activate at a reference level agreed with the local enforcing authority. Emission events which lead to alarms being activated should be electronically recorded. All instruments should be operated and maintained in accordance with the manufacturers' instructions. All such instruments should be operated and maintained in accordance with the manufacturer's instructions. This clause does not apply to other processes for local enforcing authority control in which waste oil is burned. Reference to the relevant process guidance note must be made to identify the relevant requirements regarding particulate monitoring.
- 20. In addition to the requirements of Clauses 18 and 19 above, emissions to air should be tested at least annually for particulates, except where the products of combustion are in direct contact with the heated material, for example where waste oil is burned and the heat generated is used directly in a drying process. In this case, monitoring for particulates should be in accordance with the relevant Process Guidance Note.

Where annual testing for total particulate matter, metals, chlorides and fluorides is carried out, the frequency of testing should be increased, for example, as part of the commissioning of new or substantially changed processes

21. If three or more periodic monitoring exercises, carried out over a period of at least two years, indicate consistent compliance with emission limits, local enforcing authorities should consider allowing an increased interval between future monitoring exercises. Such a relaxation should be considered sooner if the monitoring is supported by continuous indicative monitoring which shows consistent compliance. (In determining "consistent compliance" regard should be had to the variability of monitoring results and how close 'the results are to the specified emission limit. Thus, results which range from 10 - 48mg/m³, against an emission limit of 50mg/m³ might not qualify for a reduction in monitoring.)

Any dispensation granted should be reviewed in the event of the process being altered in any way which might arise to increased emissions of the pollution to be monitored.

- 22. At least seven days before any periodic monitoring exercise is undertaken, the local enforcing authority should be notified giving details of the times when monitoring will take place, the pollutants to be monitored, and the sampling techniques to be employed.
- 23. Visual and olfactory assessments of emissions should be made frequently, and at least once a day. Remedial action should be taken immediately in the case of abnormal emissions.
- 24. The results of all monitoring and inspections should be recorded in a log book, retained by the operator for a minimum of 2 years and made available for examination by the local enforcing authority. Adverse results should be investigated immediately and in all cases should be recorded in the log book. The

operator should ensure that the cause has been identified and corrective action taken, and this action recorded in the log book.

- 25. Where non-continuous emission testing is required, the results of all such testing should be forwarded to the local enforcing authority within 8 weeks of the completion of the sampling.
- 26. Where necessary, adequate, facilities for sampling should be provided on vents or ducts. Care is needed in the design and location of sampling systems in order to obtain representative samples.<sup>6</sup>
- 27. The reference test method for particulate matter emissions in chimneys or ducts is that of British Standard BS 3405:1983, and tests should be carried out according to the main procedural requirements of that standard.

Where the measurement of the concentration of other pollutants is required, methods approved by the local enforcing authority should be used.

## **Materials Handling**

- 28. Bulk storage tanks for liquid fuels should wherever practicable be back vented to the delivery tank during filling. Where this is impracticable, displaced air vents should be sited in such a way as to prevent the arising of offensive odour, as perceived by the local enforcing authority Inspector, at or beyond the process boundary.
- 29. Bulk storage tanks should be fitted with a high-level alarm or volume indicator to warn of and thereby prevent overfilling.
- 30. Above-ground bulk fuel storage tanks should be completely contained by bunding which is impervious and resistant to the fuels in storage and capable of holding 110% of the capacity of all storage tanks within the bund.

#### **Chimneys, Vents and Process Exhausts**

- 31. The height of chimneys and vents from process and arrestment plant should be assessed on the basis of estimated ground level concentrations of the emitted residual pollutants. The chimney height so obtained should be adjusted to take into account local meteorological data, local topography, nearby emissions and the influence of plant structure.<sup>7</sup>
- 32. The assessment should also take into account the relevant air quality standards and criteria that apply for the emitted pollutants. <sup>8</sup>
- 33. Where offensive odour is likely outside the process site boundary, the assessment of chimney or vent height should take into account the need for render harmless offensive odour. <sup>9</sup>
- 34. A minimum discharge velocity should be required in order to prevent the discharged plume being affected by aerodynamic downwash.<sup>7</sup>
- 35. Chimneys or vents should not be fitted with any restriction at the final opening such as a plate, cap or cowl, with the exception of a cone, which may be necessary in accordance with Clause 34 above.
- 36. Chimney flues and ductwork leading to the chimney should be adequately insulated to minimise the cooling of waste gases and the condensation of liquid on internal surfaces. Chimney flues and ductwork should be cleaned regularly to prevent accumulation of material.

## **General Operations**

- 37. Effective control of emissions requires the maintenance and proper use of equipment, and the proper supervision of process operations. Effective preventive maintenance should be employed on all plant and the equipment concerned with the control of emissions to the air. Essential spares and consumables should be held on site or should be readily available at short notice so that plant breakdowns can be rectified rapidly.
- 38. Any malfunction or breakdown leading to abnormal emissions should be dealt with promptly and process operations adjusted until normal operations can be restored. All such malfunctions should be recorded in the log book. If there is likely to be an effect on the local community the local enforcing authority should be informed without delay. The local enforcing authority may need to identify key arrestment plant the failure of which should be notified to them immediately.

- 39. Staff at all levels should receive the necessary formal training and instruction in their duties relating to control of the process and emissions to air. Particular emphasis should be given to training for start-up, shut down and abnormal conditions.
- 40. A high standard of housekeeping should be maintained.

EC Directive 87/101/EEC, which amends Directive 75/439/EEC on the disposal of waste oils, is particularly relevant

(i) a process which was being carried on at some time in the 12 months immediately preceding the first day of the month following publication of this guidance note;

(ii)a process which is to be carried on at a works, plant or factory or by means of mobile plant which was under construction or in the course of manufacture or in the course of commission on the first day of the month following publication of this guidance note, or the construction or supply of which was the subject of a contract entered into before that date.

"New processes " should be taken to have a corresponding meaning.

under section 107 of the Environment Act 1995, the term 'Inspector' has been replaced by 'authorised person'

The Air Quality Standards Regulations 1989 (SI 1989 No 317) specify current standards.

<sup>&</sup>lt;sup>1</sup> as prescribed under section 2(1) of the Environmental Protection Act 1990. <sup>2</sup> General Guidance Note 1 (GG1) -"Introduction to Part I of the Act"-includes general, guidance on the interpretation of" best available techniques not entailing excessive cost", the requirements of Articles -1, 12 and 13 of EC Directive 84/360/EEC, and the meaning of "existing processes".

<sup>&</sup>lt;sup>4</sup> for the purposes of this clause (Clause 1), "existing process" should be taken to have the following meaning (which is based on paragraph 14 of Schedule 3 to SI 1991 /472):

<sup>&</sup>lt;sup>6</sup> HMIP Technical Guidance Note (Monitoring) M 1 "Sampling Facility Requirements for the Monitoring of Particulates in Gaseous Releases to Atmosphere", HMSO ISBN 0 I I 7527 77 7. It should be noted that the safety of sampling facilities and working practices is a matter for the Health and Safety Executive and should not be controlled under Part I of the Environmental Protection Act.

guidance for the determination of chimney heights is given in HMIP Technical Guidance Note (Dispersion) DI "Guidelines on Discharge Stack Heights for Polluting Emissions" HMSO ISBN 0 11 752794 7, ~;8 net.

<sup>&</sup>lt;sup>9</sup> "Odour Measurement and Control-An Update" published by the National Environmental Technology Centre, Cullram, Abingdon, Oxon 0114 3DB. ISBN 0 85624 8258, x;20 et DoE/ WO

Additional Guidance AQI 7 (94), held by local en odour. NB. The Scottish Office equivalent of AC	nforcing authorities and the Air (utility Division of Ω I7(94) is SN I I I9-I).	DoE, provides further advice on the assessment of

#### **APPENDIX 1**

# DEFINITION OF COMBUSTION PROCESSES IN SCHEDULE 1 OF THE ENVIRONMENTAL PROTECTION (PRESCRIBED PROCESSES AND SUBSTANCES) REGULATIONS, (AS AMENDED)\* (see Clause 3 in this Note)

(The processes for local air pollution control are listed under "Part B". The "Part A" processes are for HM Inspectorate of Pollution control.)

# 1.3 Combustion processes Part A

- (a) burning any fuel in a boiler or furnace with a net rated thermal input of 50 megawatts or more or, when the process is carried on by the same person at the same location, burning any fuel in any of two or more boilers or furnaces with an aggregate net rated thermal input of 50 megawatts or more (disregarding any boiler or furnace with a net rated thermal input of less than 3 megawatts);
- (b) burning any fuel in a gas turbine or compression ignition engine with a net rated thermal input of 50 megawatts or more or any of two or more such turbines or engines with an aggregate net rated thermal input of 50 megawatts or more (disregarding any boiler or furnace with a net rated thermal input of less than 3 megawatts);
- (c) burning any of the following in an appliance with a net rated thermal input of 3 megawatts or more otherwise than as a process which is related to a Part B process
  - (i) waste oil;
  - (ii) recovered oil:
  - (iii) any fuel manufactured from, or comprising, any other waste.

Nothing in this Part of this Section applies to the burning of any fuel in a boiler, furnace or other appliance with a net rated thermal input rating of less than 3 megawatts.

#### Part B

The following processes unless carried on in relation to any Part A process-

- (a) burning any fuel in a boiler or furnace with a net rated thermal input of not less than 20 megawatts (but less than 50 megawatts);
- (b) burning any fuel in a gas turbine or compression ignition engine with a net rated thermal input of not less than 20 megawatts (but less than 50 megawatts);
- (c) burning as fuel in an appliance with a net rated thermal input of less than 3 megawatts waste oil or recovered oil;
- (d) burning in an appliance with a net rated thermal input of less than 3 megawatts-solid fuel which has been manufactured from waste by a process involving the application of heat;
- (e) burning, in any appliance, fuel manufactured from, or including, waste (other than waste oil or recovered oil or such fuel as is mentioned in paragraph (d)) if the appliance has a net rated thermal input of less than 3 megawatts but at least 0.4 megawatts or is used together with (whether or not it is operated simultaneously with) other appliances which each have a net rated thermal input of less than 3 megawatts and the aggregate net rated thermal input of all the appliances is at least 0.4 megawatts.

In paragraph (c) of Part A and paragraph (d) of Part B, "fuel" does not include gas produced by biological degradation of waste;

"net rated thermal input" is the rate at which fuel can be burned at the maximum continuous rating of the appliance multiplied by the net calorific value of the fuel and expressed as megawatts thermal; and

"waste oil" means any mineral based lubricating or industrial oil which has become unfit for the use for which it was intended and, in particular, used combustion engine oil, gearbox oil, mineral lubricating oil, oil for turbines and hydraulic oil; and

"recovered oil" means waste oil which has been processed before being burned.

<sup>\*</sup> Every effort has been taken to ensure that this Appendix is correct at the date of publication, but readers should note that the Regulations are likely to be subject to periodic amendment, and this Appendix should not therefore be relied upon as representing the up-to-date position after the publication date.

#### **APPENDIX 2**

## **EXTRACTS FROM EC WASTE OILS DIRECTIVES (see Clause 7)**

#### Article 1

For the purposes of this Directive:

-"waste oils" means:

any mineral-based lubrication or industrial oils which have become unfit for the use for which they were originally intended, and in particular used combustion engine oils and gearbox oils, and also mineral lubricating oils, oils for turbines and hydraulic oils;

-"disposal" means:

the processing or destruction of waste oils as well as their storage and tipping above or under ground;

`processing" means:

operations designed to permit the re-use of waste oils, that is to say, regeneration and combustion;

-'`combustion" means:

the use of waste oils as fuel with the heat produced being adequately recovered:

#### Article 2

Without prejudice to the provisions of Directive 78/319/EEC replaced by Directive 91 /689/EEC], Member States shall take the necessary measures to ensure that waste oils are collected and disposed of without causing any avoidable damage to man and the environment.

#### Article 3

2. Where waste oils are not regenerated, on account of the constraints mentioned in paragraph 1 above, Member States shall take the measures necessary to ensure that any combustion of waste oils is carried out under environmentally acceptable conditions, in accordance with the provisions of this Directive, provided that such combustion is technically, economically and organizationally feasible.

## Article 4

Member States shall take the necessary measures to ensure the prohibition of:

(c) any processing of waste oils causing air pollution which exceeds the level prescribed by existing provisions.

#### Article 6

2. Without prejudice to the requirements laid down by national and Community provisions with a purpose other than that of this Directive, a permit may be granted to undertakings which regenerate waste oils or use waste oils as fuel only where the competent authority has satisfied itself that all appropriate environmental and health protection measures have been taken, including use of the best technology available, where the cost is not excessive.

### Article 8

1. Without prejudice to the provisions of Directive 84/360/EEC and Article 3(1) of this Directive, where waste oils are used as fuel, Member States shall take the measures necessary to ensure that operation of the plant will not cause any significant level of air pollution, in particular by the emission of substances listed in the :Annex. To this end:

- (b) Member States shall take such measures as they consider necessary to ensure that combustion of waste oils in plants with a thermal input of less than 3 MW based on the lower heating value (LHV) is subject to adequate control.
- 2. The Member States shall further ensure that:
- (b) the waste oils used as fuel do not constitute a toxic and dangerous waste as defined in Article 1(b) of Directive 78/319/EEC and do not contain PCB/PCT in concentrations beyond 50 ppm.

#### Article 11

any establishment producing, collecting and/or disposing of more than a given quantity of waste oils per year, to be specified by each member state but not higher than 500 litres, must:

- keep a record of the quantity, quality, origin and location of such oils and of their despatch and receipt, including the dates of the latter and
- convey such information to the competent authorities on request. Member States are authorized to fix the quantity of waste oils in accordance with the first subparagraph in terms of an equivalent quantity of new oil calculated according to a reasonable conversion factor.

## **APPENDIX 3**

## **TABLE OF DERIVATIONS**

This appendix indicates for each clause its derivation (if any) in PG 1 / 2 (9I) and any changes made in comparison with PG1/2(91).

		1 -	
Clause in	Related	Comments	
PG 1/2	clause in		
(95)	PG 1/2		
	(91)		
1	-	new guidance	
2	1	amended	
3	2	amended	
4	3	no change	
5	4	no change	
6	5	no change	
7	-	new guidance	
	6	original Clause 6 deleted	
-	7	original Clause 7 deleted	
8	8	minor change	
9	9	no change	
-	10	original Clause 10 deleted	
10	11	no change	
11	12	no change	
12	13	no change	
13	14	no change	
14	15	amended	
15	16	no change	
16	17	no change	
17	18	no change	
18	19	amended	
19	20	amended	
20	21	amended	
21	-	new guidance	
22			
	- 22	new guidance	
23	22	no change	
24	23	no change	
25	24	no change	
26	25	minor change	
27	26	no change	
28	27	no change	
29	28	no change	
30	29	no change	
-	30	original Clause 30 deleted	
31	31	no change	
32	32	no change	
33	33	original Clause 33 deleted and replaced with	
		new guidance	
34	35	amended	
35	34	no change	
36	-	new guidance	
37	36	amended	
38	37	no change	
39	38	no change	
40	39	no change	
Appndx 1	Appndx 1	amended in line with regulations	
1		amendments	
Appndx 2	-	new guidance	
Appndx 3	-	this appendix	