

1. Introduction.

- 1.1 This has been written in response to leaflets issued to owners of boats by the Canal And River Trust(CRT). After local residents complained to the Canal and River Trust about smoke from boats chimneys in both King Cross, Little Venice and Angel Islington. These leaflets cited the Clean Air Act 1956. This response is intended to try and explain the way that both the Clean Air Act 1956 and the Clean Air Act 1993 apply to boats on the waterways managed by the Canals and Rivers Trust, formally British Waterways. The following questions need to be addressed.
- 1.2 What are the Clean Air Acts 1956 and 1993?
- 1.3 What status do the boats have under the Clean Air Act 1993,if any?
- 1.4 How should the provisions of the Clean Air Act 1993 be applied to boats on CRT waters?
- 1.5 Use of Kindling
- 1.6 How are smoke control orders created?
- 1.7 Dark Smoke, what is it. And how is it measured?
- 1.8 Causes of the present situation with regard to vessels

2. About the Author.

Marcus Jones has over 25 years experience dealing with boats of all kinds and is a boat owner himself. Since gaining a Masters certificate in 1992 he has worked on the waterways in London on MCA class V passenger vessels as Master and in cargo and Lighterage operations with tugs on the tidal River Thames. In 2011 he graduated as a Marine Industry Surveyor after completing a diploma from the International Institute of Marine Surveying(IIMS). He is now a Technician member of the IIMS. He has also, over the years completed reports and consultations for waterways interest groups, both on the application of the UK Merchant Shipping Acts to boats on waterways managed by the Canal and River Trust, and various freight projects that have been proposed for London's waterways. Marcus Jones also runs J&M Marine Services with two work colleagues, who also have many years experience in the marine industry. He is also has an interest in meteorology and a member of the Cloud Appreciation Society.

3. Summary.

- 3.1 The Clean Air Act 1993 does apply to boats on CRT waters but only under the provisions made in Part VI Section 44 as boats on CRT waters fall within the definition of "Vessels" given in the Clean Air Act 1993 Part VII Section 64. The content of Smoke Control Orders has no effect on vessels covered by Part VI section 44. Overall it seems, that the consistent enforcement of the provisions in the Clean Air Act 1993 is seen as difficult by local authorities as far as any boats are concerned, which may explain how the present muddled situation has arisen since the commencement of the first Clean Air Act in 1956.

4. Abbreviations used.

CRT: Canal And River Trust

Act: Clean Air Act 1993

SCO: Smoke Control Order made under Part III section 18.

5. Questions.

5.1 What is the Clean Air Act 1956 and the Clean Air Act 1993?

5.1.1 The Clean Air Act 1956 was created after the major smogs that caused deaths in London up until the mid sixties due to the large volume of sulphurous sooty smoke produced by the burning of poor quality coal in London. This modified the natural Autumn and Winter fogs that form in the Thames river valley.

5.1.2 The Clean Air Act 1956 prohibited the emission of what it called Dark Smoke from chimneys on buildings whether used as domestic or industrial premises.

5.1.3 It also prohibited the sale and purchase of fuels that produce Dark Smoke, within Smoke Control Zones made under the Act by local authorities using Smoke Control orders.

5.1.4 The Clean Air Act 1993 consolidated and made small changes to the provisions made by the Clean Air Act 1956 which it also repealed on its commencement. The Clean Air Act 1993 commencement date was on 27th May 1993.

5.1.5 So it is the Clean Air Act 1993 that frames Smoke Control Legislation today.

5.2 What legal status do boats have under the Clean Air Act 1993, if any?

5.2.1 The Clean Air Act Part VI Special Cases Section 44 makes a provision that applies to vessels. So does this apply to our case?

5.2.1.1 In Part VII General Section 64 the Act states :

"vessel" has the same meaning as "ship" in the Merchant Shipping Act 1995

5.2.1.2 So what does the Merchant Shipping Act 1995 define as a ship?

5.2.1.3 Merchant Shipping Act 1995 Section 313 Definitions states:

" ship " includes every description of vessel used in navigation.

5.2.1.4 So it would be safe to say, under the Clean Air Act 1993 any description of vessel that is used for navigation falls under this definition. So this would include narrowboats, barges, or any other description of vessel that has an engine or other means allowing it to move, or navigate from one place to another. Thus the provisions made by Part VI Special Cases section 44 "Vessels" applies.

5.3 How do the provisions of the Clean Air Act 1993 apply to boats on CRT waters.

5.3.1 Part VI Section 44 of the Clean Air Act 1993 can be applied to boats used in navigation as prescribed by that section. It provides for the Prohibition of dark smoke emissions from both chimneys and a vessel's engine. And allows for the prosecution of the person in command or charge of the vessel for an offence under this section. In full it reads:

44.—(1) Section 1 (prohibition of emissions of dark smoke) shall apply in relation to vessels in waters to which this section applies as it applies in relation to buildings.

(2) In the application of section 1 to a vessel—

(a) for the reference in subsection (1) of that section to the occupier of the building there shall be substituted a reference to the owner of, and to the master or other officer or person in charge of, the vessel;

(b) references to a furnace shall be read as including references to an engine of the vessel;

and (c) subsection (5) of that section shall be omitted;

and a person guilty of an offence under that section in relation to a vessel shall be liable on summary conviction to a fine not exceeding level 5 on the standard scale.

(3) For the purposes of this Act a vessel in any waters to which this section applies which are not within the district of any local authority shall be deemed to be within the district of the local authority whose district includes that point on land which is nearest to the spot where the vessel is.

(4) The waters to which this section applies are—

(a) all waters not navigable by sea-going ships; and

(b) all waters navigable by sea-going ships which are within the seaward limits of the territorial waters of the United Kingdom and are contained within any port, harbour, river, estuary, haven, dock, canal or other place so long as a person or body of persons is empowered by or under any Act to make charges in respect of vessels entering it or using facilities in it.

(5) In subsection (4) "charges" means any charges with the exception of light dues, local light dues and any other charges payable in respect of lighthouses, buoys or beacons and of charges in respect of pilotage

(6) Except as provided in this section, nothing in Parts I to III applies to smoke, grit or dust from any vessel.

5.3.2 Looking at the elements of Section 44 in more detail. Subsection 1 of Section 44 refers us to Section 1 (Prohibition of emissions of dark smoke) and makes the provisions of Section 1 apply to vessels as it does to buildings, it reads.

1.—(1) Dark smoke shall not be emitted from a chimney of any building, and if, on any day, dark smoke is so emitted, the occupier of the building shall be guilty of an offence.

5.3.3 Subsection 2 paragraphs (a), (b) makes modification to Section 1 by substituting the references to “the occupier of a building” with references to the owner, master, officer or persons in charge of the vessel. And includes the emissions from engines by provision made in paragraph (b). Along with removing the subsection 5 of section 1 when it is being applied to vessels. This subsection (2) reads.

(2) In the application of section 1 to a vessel—

(a) for the reference in subsection (1) of that section to the occupier of the building there shall be substituted a reference to the owner of, and to the master or other officer or person in charge of, the vessel;

(b) references to a furnace shall be read as including references to an engine of the vessel; and

(c) subsection (5) of that section shall be omitted

5.3.4 Subsection (4), paragraph (a),(b) further define its application by defining the waters the vessel has to be in, for the provisions in this section to apply.

(4) The waters to which this section applies are—

(a) all waters not navigable by sea-going ships; and

(b) all waters navigable by sea-going ships which are within the seaward limits of the territorial waters of the United Kingdom and are contained within any port, harbour, river, estuary, haven, dock, canal or other place so long as a person or body of persons is empowered by or under any Act to make charges in respect of vessels entering it or using facilities in it.

5.3.5 Section 44 subsection (4) para (b) would cover wide canals that can be used by sea going ships like, Dutch barges, Thames sailing barges and yachts etc. And subsection (4) para (a) covers the narrow canals that are not navigable by sea going ships. The subsection (5) makes Section 44 include waters run by bodies like the Canal and Rivers Trust who make charges with the exception of light dues etc. By defining the meaning of the word "charges" these subsections of Section 44 read:-

(a) all waters not navigable by sea-going ships; and

(b) all waters navigable by sea-going ships which are within the seaward limits of the territorial waters of the United Kingdom and are contained within any port, harbour, river, estuary, haven, dock, canal or other place so long as a person or body of persons is empowered by or under any Act to make charges in respect of vessels entering it or using facilities in it.

(5) In subsection (4) "charges" means any charges with the exception of light dues, local light dues and any other charges payable in respect of lighthouses, buoys or beacons and of charges in respect of pilotage.

5.3.6 The subsection (6) of section 44 below means that Part I Section 1 the Prohibition of Dark Smoke as provided in Section 44 section 1 is the only part of the Act that can be applied to vessels; and no other Part of the Act from Parts I to III with regard to smoke,grit,or dust from a vessel covered by Section 44. Grit and dust would include ash or soot in smoke.

(6) Except as provided in this section, nothing in Parts I to III applies to smoke, grit or dust from any vessel.

5.4 Use of wooden Kindling.

5.4.1 Section 1 Subsection 4 paragraph (a) allows for the emission of dark smoke when a furnace ("furnace" would include a stove aboard a vessel) is cold and has just been lit.

5.4.2 Providing that measures have been taken to minimize the duration and volume of dark smoke emission. Such measure would include the use of kindling that will only produce a dark smoke while it burns but once the coal is burning the dark smoke lightens to a colour of less than level 2 (40%) within the Ringleman chart scale see Annex 1 Subsection 4 (a) reads:

(4) In any proceedings for an offence under this section, it shall be a defence to prove—

(a) that the alleged emission was solely due to the lighting up of a furnace which was cold and that all practicable steps had been taken to prevent or minimise the emission of dark smoke;

5.5 What are Smoke Control orders?

5.5.1 These are made by the local authorities, under Part III section 18 subsection 1 and create Smoke Control Zones. But the content of such Smoke Control Orders (SCO) has no effect on smoke, grit, or dust from vessels covered by Part VI Section 44 of the Act due to Section 44 subsection (6). However we will explain what a Smoke Control Order is and the Smoke Control Zone it creates.

Section 18.—(1) A local authority may by order declare the whole or any part smoke control of the district of the authority to be a smoke control area; and any order area by local made under this section is referred to in this Act as a "smoke control authority, order".

5.5.2 The definition of a local authority is given in Part VII section 64 "local authorities". It reads:

"local authority" means—

(a) in England and Wales, the council of a district or a London borough, the Common Council of the City of London, the Sub-Treasurer of the Inner Temple and the Under Treasurer of the Middle Temple; and

(b) in Scotland, an islands or district council;

5.5.3 Section 18 subsection (2) allows for the content of a SCO to apply in different ways to different parts of the Smoke Control Zone. These changes can define how Section 20 (prohibition of emissions of smoke) applies to different classes of buildings, fireplaces, fixed boilers and industrial plant, and can even exempt specified classes of buildings, fireplaces, or industrial plant from the provisions that apply to the rest of the Smoke Control Zone made by the SCO.

(2) A smoke control order—

(a) may make different provision for different parts of the smoke control area;

(b) may limit the operation of section 20 (prohibition of emissions of smoke) to specified classes of building in the area; and

(c) may exempt specified buildings or classes of building or specified fireplaces or classes of fireplace in the area from the operation of that section, upon such conditions as may be specified in the order;

and the reference in paragraph (c) to specified buildings or classes of building include a reference to any specified, or to any specified classes of, fixed boiler or industrial plant.

5.5.4 If any changes need to be made this must be done by the issue of another SCO by a local authority as required by the provision in Section 18 subsection (3) shown below.

(3) A smoke control order may be revoked or varied by a subsequent order.

5.5.5 Schedule 1 defines the due process that must be followed to create a Smoke Control Zone with the issue of Smoke Control Order under Section 18.

SCHEDULE 1

COMING INTO OPERATION OF SMOKE CONTROL ORDERS

1. Before making a smoke control order the local authority shall publish in the London Gazette and once at least in each of two successive weeks in some newspaper circulating in the area to which the order will relate a notice—

(a) stating that the local authority propose to make the order, and its general effect;

(b) specifying a place in the district of the local authority where a copy of the order and of any map or plan referred to in it may be inspected by any person free of charge at all reasonable times during a period of not less than six weeks from the date of the last publication of the notice; and

(c) stating that within that period any person who will be affected by the order may by notice in writing to the local authority object to the making of the order.

2. Besides publishing such a notice, the local authority shall post, and keep posted throughout the period mentioned in paragraph 1(b), copies of the notice in such number of conspicuous places within the area to which the order will relate as appear to them necessary for the purpose of bringing the proposal to make the order to the notice of persons who will be affected.

3. If an objection is duly made to the local authority within the period mentioned in paragraph 1(b), and is not withdrawn, the local authority shall not make the order without first considering the objection.

4. Subject to paragraphs 5 and 6, an order shall come into operation on such date not less than six months after it is made as may be specified in it.

5. An order varying a previous order so as to exempt specified buildings or classes of building or specified fireplaces or classes of fireplace from the operation of section 20 (prohibition of smoke emissions in smoke control area) may come into operation on, or at any time after, the date on which it is made.

SCHEDULE 1 CONTINUED

6. If, before the date on which the order is to come into operation, the local authority—

(a) pass a resolution postponing its coming into operation; and

(b) publish a notice stating the effect of the resolution in the London Gazette and once at least in each of two successive weeks in some newspaper circulating in the area to which the order will relate, the order shall, unless its coming into operation is again postponed under this paragraph, come into operation on the date specified in the resolution.

7. In the application of this Schedule to Scotland, for any reference to the London Gazette there shall be substituted a reference to the Edinburgh Gazette.

5.6 Who can enforce the provisions of the Clean Air Act 1993?

5.6.1 Local authorities have a duty to enforce the provisions of Part I to Part IV of the Act. A local authority under the Act means a London Borough, City of London, Treasurers of Inner Temple Middle Temple in London and a district council of England and in Scotland a island or district council.

"local authority" means—

(a) in England and Wales, the council of a district or a London borough, the Common Council of the City of London, the Sub-Treasurer of the Inner Temple and the Under Treasurer of the Middle Temple; and

(b) in Scotland, an islands or district council;

5.6.2 This means that only a local authorities that fulfil this definition can enforce the provisions of the Act not the Canal And Rivers Trust. However the CRT could make the emissions of smoke a condition of the CRT licensing terms and conditions. Any breach would be dealt with as, a breach of contract by the vessels owner or master which is covered by another area of law. But any such condition would have to take account of the provisions for vessels in Part VI Section 44 of the Act as any conflict could be challenged.

5.6.3 The only possible term that could be used from British Waterways/Canal and River Trust "General Terms and Conditions for Boat Licences" is 7.5. But would really need modification before it could be used effectively and fairly. This would require a consultation to be undertaken with boat owners and operators.

5.7 Dark Smoke. What is it, and how is determined?

5.7.1 As we have explained only the Prohibition of the emission of dark smoke in Part I Section 1 of the Act can be enforced with regard to vessels on the CRT's waters. So what is "Dark Smoke" and how is it measured to give evidence that an offence has been committed under the Act?

5.7.2 The definition of Dark Smoke is given in Part I Section 1 Subsection 3 which reads:

3.—(1) In this Act "dark smoke" means smoke which, if compared in Meaning of the appropriate manner with a chart of the type known on 5th July 1956 (the date of the passing of the Clean Air Act 1956) as the Ringelmann Chart, would appear to be as dark as or darker than shade 2 on the chart.

(2) For the avoidance of doubt it is hereby declared that in proceedings—

(a) for an offence under section 1 or 2 (prohibition of emissions of dark smoke); or

(b) brought by virtue of section 17 (smoke nuisances in Scotland), the court may be satisfied that smoke is or is not dark smoke as defined in subsection (1) notwithstanding that there has been no actual comparison of the smoke with a chart of the type mentioned in that subsection.

(3) Without prejudice to the generality of subsections (1) and (2), if the Secretary of State by regulations prescribes any method of ascertaining whether smoke is dark smoke as defined in subsection (1), proof in any such proceedings as are mentioned in subsection (2)—

(a) that that method was properly applied, and

(b) that the smoke was thereby ascertained to be or not to be dark smoke as so defined, shall be accepted as sufficient.

5.7.3 Smoke is in fact solid micro particles of soot, dirt, or grit in high enough concentrations to make the smoke visible. There are also other gases that are invisible too. The volume and nature of these micro particles can produce a smoke that can appear thin and translucent, or thick and opaque and coloured grey, brown, black, or yellowish if there is a lot of sulphurous soot making up the smoke.

5.7.4 Smoke emissions are measured using Ringelman Charts that a Professor Maximillian Ringelman created while in Paris in 1888. A set of these charts is included in Annex 2. An offence is committed under the Clean Air Act 1993 if any emissions of smoke are seen from a chimney over a period of time that appears darker than the Level 2 (40%) grid in the Ringelman chart series. The procedure forms used to make such observations using the Ringelman Charts is also included in Annex 1.

5.8 Causes of the present situation with regard to vessels.

5.8.1 It seems that local authorities are unsure how to enforce the Clean Air Act 1993 when it comes to boats in waters that are close to their boundaries and are covered by the Act.

5.8.2 Resulting in confusion among boat owners over Smokeless coals and their use.

5.8.3 The CRT issuing leaflets citing the repealed Clean Air Act 1956 and Smoke Control Orders made under it, just further confuses boat owners as to how the law applies.

5.8.4 Local Authorities also seem to be unable to enforce the provisions of Part III with regard to the sale and purchase of unapproved fuels within a smoke control zone. An example of this is the growth in the sale of such fuels by garages etc. within London over the last 10 to 15 years. However this is not applicable to boats covered by Part VI Section 44, which would include the coal delivery boats working in London.

23.—(1) Any person who—

(a) acquires any solid fuel for use in a building in a smoke control area otherwise than in a building or fireplace exempted from the operation of section 20 (prohibition of smoke emissions in smoke control area);

(b) acquires any solid fuel for use in any fixed boiler or industrial plant in a smoke control area, not being a boiler or plant so exempted; or

(c) sells by retail any solid fuel for delivery by him or on his behalf to—

(i) a building in a smoke control area; or

(ii) premises in such an area in which there is any fixed boiler or industrial plant, shall be guilty of an offence and liable on summary conviction to a fine not exceeding level 3 on the standard scale.

(2) In subsection (1), "solid fuel" means any solid fuel other than an authorised fuel.

(3) Subsection (1) shall, in its application to a smoke control area in which the operation of section 20 is limited by a smoke control order to specified classes of buildings, boilers or plant, have effect as if references to a building, boiler or plant were references to a building, boiler or plant of a class specified in the order.

(4) The power of the Secretary of State under section 22 (exemptions relating to particular areas) to suspend or relax the operation of section 20 in relation to the whole or any part of a smoke control area includes power to suspend or relax the operation of subsection (1) in relation to the whole or any part of such an area.

(5) In proceedings for an offence under this section consisting of the sale of fuel for delivery to a building or premises, it shall be a defence for the person accused to prove that he believed and had reasonable grounds for believing—

(a) that the building was exempted from the operation of section 20 PART III or, in a case where the operation of that section is limited to specified classes of building, was not of a specified class; or

(b) that the fuel was acquired for use in a fireplace, boiler or plant so exempted or, in a case where the operation of that section is limited to specified classes of boilers or plant, in a boiler or plant not of a specified class.

6. Conclusions.

6.1 The provisions made in Part VI Section 44 Vessels do apply to boats on the waterways managed the Canal and Rivers Trust, and can be enforced by local authorities that have these waterways within their boundaries.

6.2 However, such enforcement, would require a big change in the way boats on these waterways are perceived by all the parties concerned with regard to their legal status under maritime law. Such a change may create issues in future over the way the Canal and Rivers Trust manage the waterways under its care, and the way it supplies services to boats using them.

6.3 Local authorities seem unaware of the relevant provisions in the Clean Air Act 1993 and how to enforce them with regard to boats.

6.4 The Canal And River Trust has no lawful power to enforce the provisions of the Clean Air Act 1993 as it is not an enforcement authority under that Act.

6.5 This has resulted in flawed information being given to both local residents and boat owners by all the authorities involved.

6.6 Resulting in conflict and confusion between boat owners and local residents who now live in developments in close proximity to waterways in cities like London.

Annex I Use of Ringleman Charts

Annex 2 Ringleman Charts