

CONSENT NO. BE0042501

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Asiantaeth yr
Amgylchedd Cymru
Environment
Agency Wales

WATER RESOURCES ACT 1991

SECTION 88 – SCHEDULE 10

(AS AMENDED BY THE ENVIRONMENT ACT 1995)

VARIATION OF CONSENT TO DISCHARGE

TO: Environment Quality Scientist
Dŵr Cymru Cyfyngedig
Pentwyn Road
Nelson
Treharris
CF46 6LY

In pursuance of an application by the consent holder for variation of consent, the **ENVIRONMENT AGENCY** ("The Agency") in pursuance of its powers under the Water Resources Act 1991 **HEREBY VARIES ITS CONSENT** to the making of a discharge **OF SEWAGE EFFLUENT**, as follows:

Secondary Treated Sewage Effluent

with respect to Modification of Consent No. BE0042501 issued on the 8th day of March 2005

FROM: CARMEL WASTEWATER TREATMENT WORKS

AT: CARMEL, CARMARTHENSHIRE

TO: THE AFON MARLAIS


HEREAFTER SUBJECT TO the conditions set out in the following schedule(s):

Secondary Treated Sewage Effluent

Schedule No. BE0042501 01

Subject to the provisions of Paragraphs 7 and 8 of Schedule 10 of the Water Resources Act 1991, no notice shall be served by the Agency, which affects the effect of variations made to this consent, without the agreement in writing of the Consent Holder, during a period of 4 years from the date this variation is issued.

This variation of consent is issued on the 20th day of March 2007
and takes effect on the 31st March 2007.

Signed 

Team Leader – Regulatory Water Quality

Asiantaeth yr Amgylchedd Cymru
"Maes Newydd", Llandarsi, Nedd Port Talbot. SA10 6JQ

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CONSENT NUMBER	BE0042501
SCHEDULE NUMBER	BE0042501 01
DATE ISSUED	20th March, 2007

CONDITIONS OF CONSENT TO DISCHARGE

Secondary Treated Sewage Effluent ("the Discharge")

**FROM: CARMEL WASTEWATER TREATMENT WORKS, CARMEL,
CARMARTHENSHIRE**

NATURE

1. The Discharge shall consist solely of secondary treated sewage effluent.

LOCATION

2. The Discharge shall be made in the manner and at the place specified as:
 - (a) discharging via a 300 millimetre diameter pipe;
 - (b) discharging to The Afon Marlais;
 - (c) at National Grid Reference SN60085 17490;
 - (d) shown marked 'Final Effluent Discharge Point' on Plan BE0042501 attached as Annex 3.

SAMPLE POINT

3. An appropriately labelled sample point shall be provided and maintained at National Grid Reference SN60078 17467, as shown marked 'Final effluent Sample Chamber' on Plan BE0042501, or some other point as agreed in writing with the Agency, so that a representative spot sample of the Discharge may be obtained. The consent holder shall ensure that all constituents of the Discharge pass through the said sampling point at all times and in any legal proceedings it shall, for the purposes of Section 10 of the Rivers (Prevention of Pollution) Act 1961, be presumed, until the contrary is shown that any sample of the Discharge taken at the said sampling point is a sample of what was being discharged into controlled waters.

VOLUME

4. The volume of the Discharge shall not exceed 259 cubic metres per day.
5. The Dry Weather Flow of the Discharge shall not exceed 100.1 cubic metres per day.

For the purpose of this condition Dry Weather Flow shall mean the average daily flow to the treatment works during seven consecutive days without rain (excluding a period which includes public holidays) following seven days during which the rainfall did not exceed 0.25 millimetres on any one day.

CONSENT NUMBER	BE0042501
SCHEDULE NUMBER	BE0042501 01

6. The rate of discharge shall not exceed 3 litres per second.

FLOW MEASUREMENT

7. A continuous flow monitoring and recording system, to a specification provided by the Agency, with on-site visual display from which readings can be readily obtained by the Agency, shall be provided and operated to record the daily volume and instantaneous flow of the discharge.
8. As soon as practicable after completion of the flow system installation the Consent Holder shall employ an independent expert to certify that the installation complies with the Agency's specification. The Consent Holder shall satisfy himself as to the professional competence of the expert. A copy of the certifier's report shall be provided to the Agency when it is available.
9. Records of the flow readings shall be maintained by the Consent Holder and shall be provided to the Agency when requested, in a format specified by the Agency.
10. The Consent Holder shall produce and maintain a quality control manual, approved by the independent expert and to the satisfaction of the Agency, specifying procedures for the calibration, operation and maintenance of the flow monitoring system. The flow system shall be calibrated, operated and maintained by the Consent Holder in accordance with the provisions of the manual. The Consent Holder shall keep a record of these procedures available for inspection by the Agency and provide a copy to the Agency on request.
11. The Consent Holder shall record all failures of the continuous flow system and any other breaks in the flow record. The reasons for these failures and breaks shall be recorded and all steps taken to prevent a re-occurrence. The Consent Holder shall ensure that as far as possible the recorder remains fully operational at all times. Any failures shall be remedied as soon as possible.
12. Flows of the discharge shall be measured downstream of the Flow Meter Chamber at National Grid Reference SN 60078 1467, or such other point(s) as agreed by the Agency.

COMPOSITION

13. (a) Subject to paragraph (b) below, the Discharge shall not contain more than:
 - (i) 10 milligrammes per litre of biochemical oxygen demand (measured after 5 days at 20°C with nitrification suppressed by the addition of allyl-thiourea);
 - (ii) 5 milligrammes per litre of ammoniacal nitrogen (expressed as N)

CONSENT NUMBER	BE0042501
SCHEDULE NUMBER	BE0042501 01

- (iii) 17 milligrammes per litre of suspended solids (measured after drying at 105°C);
- (b) The limit for any of the relevant parameters set out in paragraph (a) above may be exceeded where, in any series of samples of the Discharge taken at regular but randomised intervals in any period of twelve consecutive months as listed in Column 1 of the table at Annex 1 to this consent, no more than the relevant number of samples, as listed in Column 2 of the said table, exceed the applicable limit for that relevant parameter.

WORKS OPERATION

- 14. The works shall be operated and the effluent shall be treated in a manner which, so far as reasonable practicable, minimises the polluting effects of the discharge made from the works on controlled waters.

This condition does not require -

- (a) any higher standard to be achieved in relation to any characteristic of the discharge which is specifically regulated by conditions 13 and 14, than is required by those conditions;
- (b) any alteration of the works or a change in the type of treatment used.

UNUSUAL WEATHER CONDITIONS

- 15. (a) No sample of the discharge, taken at a time when unusual weather conditions are adversely affecting the operation of the sewage treatment works, shall be taken into account in deciding whether or not the conditions 13, 14 and 15 of this consent have been complied with.
- (b) For the purpose of this condition "unusual weather conditions" shall include:
 - (i) low ambient temperatures as evidenced by effluent temperatures of 5°C or less, or by the freezing of mechanical equipment in the works;
 - (ii) significant snow deposits;
 - (iii) tidal or fluvial flooding;
 - (iv) weather conditions causing unforeseen loss of power supply to the sewage treatment which could not be ameliorated by the reasonable provision and operation of standby generation facilities.
- (c) On any occasion where unusual weather conditions adversely affect the operation of the sewage treatment works, the Consent Holder shall use its best endeavours to mitigate that adverse effect.

CONSENT NUMBER	BE0042501
SCHEDULE NUMBER	BE0042501 01

- (d) For a sample of the discharge to be considered for the purposes of (a) above, the Consent Holder shall notify the Agency by telefax or telephone as soon as unusual weather conditions are known to have adversely affected operations and shall confirm the circumstances in writing as soon as possible thereafter (and in any event within 14 days of the occurrence of such conditions). That notification shall include a full description of the unusual weather conditions and their impact on the operation of the works.

RECORDING AND REPORTING

16. (a) The Consent Holder shall establish and operate a documented maintenance programme and record all non-routine actions undertaken that may have adversely affected effluent quality. Copies of the programme shall be made available for inspection by the Agency's officers at all reasonable times.
- (b) On request the Consent Holder shall supply the Agency with a written report on the maintenance and all non-routine actions that may have adversely affected effluent quality.
17. The Consent Holder shall notify the Agency in writing if any known or planned introduction or material change in respect of discharges from trade premises to the sewerage system occurs, that may increase or introduce into the effluent any "dangerous substance" included on Lists I, II, or Red List (set out in Annex 2 to this notice as updated from time to time and notified to the Consent Holder in writing), and any other substance considered by the Consent Holder as having or likely to have a significant effect on the receiving waters.

SUBSTANTIAL CHANGE

18. A discharge shall not be made from the works if it would cause a significant increase in the polluting effects of the discharge on controlled waters as a result of a new or altered discharge of trade effluent into the works.
- 18.1 A discharge of trade effluent into the works is new if -
- (a) it is made by the sewerage undertaker and is of a kind not made into the works by the undertaker immediately before the date of effect of this consent; or
- (b) it is made by a third party and the discharge is authorised on or after that date.
- 18.2 A discharge of trade effluent into the works is altered if -
- (a) it is made by the sewerage undertaker and its composition or quantity changes significantly on or after the date of effect of this consent; or

CONSENT NUMBER	BE0042501
SCHEDULE NUMBER	BE0042501 01

- (b) it is made by a third party and the alteration of the discharge is authorised on or after that date.

18.3 An increase in the polluting effects of the Discharge on controlled waters is not significant for the purposes of this condition if it relates to any characteristic of the Discharge which is specifically regulated by conditions 13 and 14 of this consent but it may be significant if it is caused by a change in some other characteristic of the Discharge.

18.4 For the purposes of this condition "trade effluent" means -

- (a) any discharge by the sewerage undertaker other than
 - (i) domestic sewage from premises connected directly or indirectly to the works; or
 - (iv) surface water run-off;
- (b) any discharge by a third party which is authorised under Chapter III of Part IV of the Water Industry Act 1991 or which is only accepted as a result of a contract with the sewerage undertaker.

UNAUTHORISED DISCHARGES

19. A discharge made from the works shall not contain any poisonous, noxious or polluting matter or solid waste matter which is attributable to any unauthorised discharge into the works.

- (a) A discharge into the works is unauthorised if it is made by a third party and either there is no obligation to receive it or conditions subject to which there is an obligation to receive it are not observed.
- (b) Nothing in this, or any other, condition of this consent prevents anyone from relying on any defence available to them under section 87 of the Water Resources Act 1991.

CONSENT NUMBER	BE0042501
SCHEDULE NUMBER	BE0042501 01

ANNEX 1

TABLE

Column 1

Column 2

Number of samples
taken in any period
of 12 months

Maximum number of samples
permitted to exceed limit
for given determinand

4-7	1
8-16	2
17-28	3
29-40	4
41-53	5
54-67	6
68-81	7
82-95	8
96-110	9
111-125	10
126-140	11
141-155	12
156-171	13
172-187	14
188-203	15
204-219	16
220-235	17
236-251	18
252-268	19
269-284	20
285-300	21
301-317	22
318-334	23
335-350	24
351-365	25

CONSENT NUMBER	BE0042501
SCHEDULE NUMBER	BE0042501 01

ANNEX 2

- | | |
|------------------------------------------------------------------------|------------------------------|
| 1. Mercury and its compounds | 2. Cadmium and its compounds |
| 3. Hexachlorocyclohexane
(lindane and related compounds) | 4. Carbon tetrachloride |
| 5. DDT (the isomers of 1,1,1-trichloro-2,2 bis(p-chlorophenyl) ethane) | |
| 6. Pentachlorophenol (PCP) | 7. Aldrin |
| 8. Dieldrin | 9. Endrin |
| 10. Isodrin | 11. Hexachlorobenzene (HCB) |
| 12. Hexachlorobutadiene (HCBD) | 13. Chloroform |
| 14. Polychlorinated biphenyls | 15. Dichlorvos |
| 16. 1,2-Dichloroethane | 17. Trichlorobenzene |
| 18. Atrazine | 19. Simazine |
| 20. Tributyltin compounds | 21. Triphenyltin compounds |
| 22. Trifluralin | 23. Fenitrothion |
| 24. Azinphos-methyl | 25. Malathion |
| 26. Endosulfan | 27. Lead |
| 28. Chromium | 29. Zinc |
| 30. Copper | 31. Nickel |
| 32. Arsenic | 33. *Iron |
| 34. *pH outside range 5.5 to 9.0 | 35. *Boron |
| 36. Vanadium | 37. PCSD'S |
| 38. Cyfluthrin | 39. Sulcofuron |
| 40. Flucifuron | 41. Permethrin |
| 42. 4-Chloro-3-methyl-phenol | 43. 2-Chlorophenol |
| 44. 2,4-Dichlorophenol | 45. 2,4-D (ester) |
| 46. 2,4-D (non ester) | 47. 1,1,1-Trichloroethane |
| 48. 1,1,2-Trichloroethane | 49. Bentazone |
| 50. Benzene | 51. Biphenyl |
| 52. Chloronitrotoluenes | 53. Demeton |
| 54. Dimethoate | 55. Linuron |
| 56. MCPA | 57. Mecoprop |
| 58. Mevinphos | 59. Napthalene |
| 60. Omethoate | 61. Toluene |
| 62. Triazophos | 63. Xylene |
| 64. Cyanide | 65. Azinphos-ethyl |
| 66. Fenthion | 67. Parathion |
| 68. Parathion-methyl | 69. Trichloroethylene |
| 70. Tetrachloroethylene | 71. Dioxins |
| 72. PAHs | 73. Nonyl phenol |
| 74. Nonyl phenyl ethoxylate | 75. Di-ethylhexyl phthalate |
| 76. Bisphenol-A | 77. Diazinon |
| 78. Chlorfenvinphos | 79. Chlorotoluron |
| 80. Isoproturon | 81. Diuron |
| 82. Propetamphos | 83. Flumethrin |
| 84. Amitraz | 85. High-Cis Cypermethrin |
| 86. Cyromazine | 87. Deltamethrin |
| 88. Cypermethrin | |

This list is applicable as at 1 December 1998 and will be updated as and when changes to the relevant legislative requirements occur.

*Notification to the Agency by the Consent holder is only required in respect of changes to trade effluents likely to cause significant changes to the pH value, and/or iron or boron concentrations, of the crude sewage.

Annex 3: Carmel WwTW

CARMELO W.W.T.W.
SN 60079, 217430
260079, 217430

FINAL EFFLUENT SAMPLE CHAMBER
260078, 217467

STORM SAMPLE POINT
260074, 217468

FLOW METER CHAMBER
260078, 217467

FINAL EFFLUENT DISCHARGE POINT
260088, 217490

Sewage Works

CARMELO

**CARRIE
W.W.T.W.
SN 60079,17430
260079,217430**

**FINAL EFFLUENT
SAMPLE CHAMBER
260078.217467**

**FINAL EFFLUENT
DISCHARGE POINT
260035,217490**

**STORM SAMPLE
POINT
260074.217468**

**FLOW METER
CELANESE
260078, 217467**

Sewage
Works