

## GOVERNMENT NOTIFICATION.—No. 197.

*Petroleum in Bulk.*

The Rules and Regulations relating to Petroleum in Bulk heretofore made by the Governor-in-Council on the 27th day of March, 1897, are hereby revoked by the Governor-in-Council, and the following Rules and Regulations which are substituted for those now revoked, are published for general information.

By Command,

J. H. STEWART LOCKHART,  
*Colonial Secretary.*

Colonial Secretary's Office, Hongkong, 28th March, 1899.

## RULES AND REGULATIONS

*In relation to Petroleum in Bulk, made by the Governor-in-Council on the 28th day of March, 1899, under the provisions of the Dangerous Goods Ordinance, 1873, as amended by Ordinance No. 8 of 1892.*

1. In these rules the words, "Petroleum in Bulk", shall mean petroleum and any product of petroleum in any vessel, tank, compartment, or receptacle having a capacity of 300 gallons and upwards, save and except that such words shall not include—

(i.) Lubricating oils, or

(ii.) Petroleum tar or petroleum fuel which, after being tested by him, has been certified by the Government Analyst or other similar officer of this or any other British Colony or Possession to give off an inflammable vapour at a temperature of not less than 200° Fahrenheit, when tested in the manner set forth in the Schedule hereto.

The word "Tank Ship" shall mean any ship conveying or intended to convey Petroleum in bulk.

2. Every tank ship arriving at any port in this Colony having on board Petroleum in bulk and every ship being about to take on board such petroleum from the licensed premises hereinafter mentioned shall hoist a red flag at her fore-top-gallant-mast-head and at her main-top-gallant-mast-head, shall hoist the flags ~~N. O. D.~~ of the International Code (signifying "Petroleum Oil"), and shall keep such flags flying during the hours of daylight whilst any Petroleum is on board and thereafter so long as she shall remain in the waters of the Colony and during the same period every such ship shall by night display 2 red lights vertically in a position where they can be best seen and at a height of not less than 20 feet above the deck: Provided that if the Harbour Master is satisfied that a ship after discharging the Petroleum on board has been thoroughly emptied, cleaned and ventilated he may dispense with the requirements of this rule.

3. Every tank ship, having on board Petroleum in bulk, shall, if bound for the Tai-koktsui Depôt, anchor on the South side of Stone Cutter's Island to the West of a line from which the White Rock bears North, and to the North of a line, having the shears at the Naval Yard at Kowloon bearing East, and if bound to the North Point Depôt, shall anchor in Kowloon Bay, outside of the Harbour Boundary, and such ship shall not move from such position without the permission of the Harbour Master.

4.—(1.) During the time that any tank ship having on board Petroleum in bulk is within the water of the Colony no fires or lights except the electric light shall be used on board or in the immediate vicinity of the ship while the tanks or petroleum compartments are discharging or receiving petroleum, and no person on board shall smoke or carry matches. But this regulation shall not be deemed to prohibit engine room fires properly banked up, or galley fires, nor, when the said tanks or compartments are not discharging or receiving petroleum, engine room fires, necessary to get up steam to move from the said anchorage to the wharf hereinafter mentioned and back again, or from the wharf to go to sea, or in case of stress of weather; nor when the master has produced any such certificate and made the declaration mentioned in rule 6, nor when the Government Analyst has given his certificate as hereinafter mentioned, the use of steam to discharge the petroleum on board.

(2.) During the time that any ship having on board Petroleum in bulk is within the waters of the Colony, all the tanks or petroleum compartments shall be kept closed to the air, except so far as is absolutely necessary for the discharge of the Petroleum, or for procuring the samples required by Rule 7 (2.), and the mouth of any ventilator in connection with the tank, or petroleum compartment, shall be always protected by a wire gauze cover.

Flags to be displayed by tank ships.

Lights at night.

Position to be taken up by tank ships.

Fires and lights on board.

Tanks and Petroleum compartments to be kept closed and ventilators protected.

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Tank ships on entering to declare cargo.

5. The master of every tank ship arriving at this port and having on board Petroleum in bulk shall, on entering his vessel at the Harbour Master's Office and before proceeding to the wharf as hereinafter mentioned to discharge any cargo, declare in writing to the Harbour Master :—

- (a.) What quantity of petroleum the ship is carrying.
- (b.) The number of compartments or tanks in which oil is stored.
- (c.) The nature and quality of the oil and whether it is covered by any and what certificate from the port of shipment or any intermediate port of call as to the temperature at which the oil gives off an inflammable vapour.

On production of certain certificate of testing and on declaration oil may be discharged.

6.—(1.) If the master of any tank ship produces to the Harbour Master a certificate or certificates under the hand of the Government Analyst or other similar officer of this or any British Colony or Possession that the petroleum on board his ship does not give off an inflammable vapour at a temperature of less than 73° Fahrenheit when tested in the manner set forth in the schedule hereto, and makes a statutory declaration that all the petroleum on board is covered by such certificate or certificates and was part of the petroleum, samples whereof were tested at the port or place named in the certificate, the Harbour Master may give permission for the ship to at once proceed to the wharf as hereinafter mentioned and discharge petroleum as hereinafter provided. If, however, such certificate or certificates is or are to the effect that such petroleum does not give off an inflammable vapour at a temperature of less than 200° Fahrenheit, when tested in the manner set forth in the schedule hereto, and the master of such ship makes a statutory declaration that all the petroleum on board is covered by such certificate or certificates and was part of the petroleum, samples whereof were tested at the port or place named in the certificate, then and in such case the Harbour Master may give permission to the ship to proceed to her anchorage and she shall no longer be treated as a tank ship under these rules and regulations.

Ship with certain quality of petroleum no longer treated as a tank ship.

(2.) Where any petroleum tar or petroleum fuel which is covered by such Certificate or Certificates as last mentioned is stored in the Colony it shall be stored in a special place licensed by the Governor for that purpose and when taken out of such special place may, in lieu of being accompanied by such Certificate or Certificates, be accompanied by a statutory declaration made by the owners of such special place to the effect that such petroleum tar or petroleum fuel so taken out forms part of a quantity of petroleum tar or petroleum fuel which has been certified by the Government Analyst or other similar officers of this or any British Colony or Possession not to give off an inflammable vapour at a temperature of less than 200° Fahrenheit, when tested in the manner set forth in the schedule hereto.

Officer from Harbour Master's Office to be sent on board to take samples.

7.—(1.) When the master of a tank ship, having on board Petroleum in bulk, shall have made the declaration in rule 5 but shall not have produced any such certificate as in the last preceding rule mentioned, the Harbour Master shall cause an officer of his department to go on board the ship to obtain samples of the petroleum from each compartment or tank.

Master to deliver samples of each consignment.

(2.) The Master shall forthwith deliver to the officer aforesaid without charge samples from each tank or compartment in which petroleum is carried. Such samples shall be taken under the personal supervision of the officer aforesaid and in the presence of the master or chief officer of the ship.

Quantity of samples.

(3.) Every such sample shall consist of about forty fluid ounces and every sample shall be rapidly transferred from the compartment or tank in which it is stored into a separate bottle to be provided by the said officer.

Transmission of samples to Government Analyst.

(4.) When the samples have been delivered to the said officer he shall fasten up, secure and label the bottles containing them with the name of the ship and the description or number of the compartment or tank from which each sample has been taken and such other distinguishing marks as may be necessary in the presence of the master or chief officer of the ship. The Harbour Master shall cause the samples to be forwarded to the Government Analyst.

Testing and certificate of flashing point.

(5.) The Government Analyst shall test the samples thus received in the manner indicated in the schedule to these rules and regulations and shall, as soon as practicable, give a certificate of the temperature at which the samples were found to give off an inflammable vapour and shall forward such certificate to the Harbour Master.

Fee for testing.

(6.) The fee for testing each sample shall be two dollars and fifty cents which shall be paid to the Colonial Treasurer.

Discharge of Petroleum on certificate of Government Analyst.

(7.)—(a.) If the certificate of the Government Analyst certifies that the petroleum in any one compartment on board a tank ship gives off an inflammable vapour at a temperature of less than 73° Fahrenheit when tested in the manner set forth in the schedule hereto, the ship with the petroleum on board shall not be permitted to discharge and shall be ordered by the Harbour Master to leave the waters of this Colony by the route by which she entered.

In all other cases the ship may, upon payment of the said testing fees and upon obtaining the permission of the Harbour Master, proceed to the wharf as hereinafter mentioned and the petroleum may be discharged as hereinafter provided.

(b.) Moreover, if the certificate of the Government Analyst certifies that samples of petroleum taken from every compartment on board of a tank ship all of them give off an inflammable vapour at a temperature of not less than 200° Fahrenheit, when tested in the manner set forth in the schedule hereto, then, upon payment of the said testing fees and obtaining the permission of the Harbour Master to proceed to her anchorage, such ship shall no longer be treated as a tank ship under these rules and regulations.

Ship with certain quality of petroleum no longer treated as a tank ship.

8. The discharge of petroleum imported in bulk from a tank ship and the shipment of petroleum from the licensed premises hereinafter mentioned shall be effected by means of a hose and a wrought-iron pipe between sunrise and sunset. Petroleum so imported shall be pumped into storage tanks and when the ship has finished discharging or shipping petroleum the pipe shall immediately be emptied. When the ship has not finished discharging or shipping by sunset, arrangements shall be made by means of a valve or otherwise for effectually preventing any of the oil left in the pipe from escaping.

Method of discharge of oil.

9. The wharves immediately opposite the premises licensed for the storage of Petroleum in bulk at Taikoktsui in British Kowloon and at North Point, Hongkong, shall be the places to which tank ships having, or being about to take, on board Petroleum in bulk, shall proceed; and every ship as aforesaid in proceeding to or from the wharf at Taikoktsui shall, unless special permission to the contrary has been given by the Harbour Master, take the route by way of the passage north of Stone Cutter's Island.

Places for discharging or taking on board petroleum.

10. During the time that any tank ship is moored or made fast alongside either of the said wharves two certificated officers of the ship of whom one shall be a deck officer shall remain on board and the ship shall be protected on her "off" side by booms of such strength (to be approved by the Harbour Master) and so secured as to fend off any other vessel from possible collision with her.

Protection of ships alongside wharf.

11. No discharge of petroleum whether mixed with water or not shall be permitted into the harbour from any tank ship, or from the licensed premises.

Throwing Petroleum into the harbour.

12.—(1.) Except as hereinafter provided, the wharves shall not be used for any other purpose than the discharge or shipment of petroleum.

Use of wharf.

(2.) No tank ship when alongside either of the said wharves shall discharge petroleum into any other ship, vessel or junk of any description whatever.

(3.) When no tank ship having or being about to take petroleum on board or having recently discharged petroleum is alongside the wharf, the wharf may be used for the purpose of shipping from the said licensed premises petroleum in drums or other vessels of a capacity not exceeding 20 gallons each or for landing empty drums or other vessels of a similar capacity to be taken into the said premises. When not being used for either of these purposes, the wharf may be used for discharging coal for the purpose of storage or shipping coal into lighters or other vessels not being tank ships.

13. The discharge or shipment of petroleum from or on any one tank ship shall not occupy more than twenty-four working hours unless the time has been extended by the Harbour Master owing to stress of weather or accidental cause.

Time for discharge.

14. Not more than one tank ship shall go or be alongside any wharf at one time: nor when a tank ship is discharging or shipping petroleum shall any other ship, junk or vessel of any description whatever, be alongside the wharf or the tank ship.

One petroleum ship to go alongside only.

15. After the discharge or shipment of petroleum in bulk the tank ship, unless she at once goes to sea, shall proceed without delay to the anchorage as provided by the third of these rules and she shall not remove thereupon until every tank or compartment which has been emptied of petroleum has been thoroughly cleansed and ventilated by the removal of all oil and vapour and, unless the especial permission of the Harbour Master has been obtained, except for the purpose of proceeding to sea or in case of stress of weather.

Position to be taken by ship after discharging Petroleum.

16. No tank ship having on board or having recently discharged petroleum in bulk shall, without the permission of the Harbour Master, pass through or take up any position in the harbour except as in the last preceding rule mentioned. If the Harbour Master is satisfied that a tank ship has no petroleum on board and that her tanks have been thoroughly cleansed and ventilated, he may allow her to pass through the harbour or take up such position as he may assign.

No ship having or having recently had Petroleum on board to pass through the harbour.

17. Except where repugnant to or inconsistent with these regulations and unless otherwise expressly provided the rules and regulations for the time being in force under the Dangerous Goods Ordinance, 1873, as amended by any other Ordinance, in relation to the movement by land or water and the storage of Dangerous Goods and to the anchorage of ships, vessels, lighters or boats having or being about to take on board Dangerous Goods within the Colony shall apply to the movement and storage of petroleum in drums or other vessels from the premises in which petroleum in bulk is licensed to be stored and to the anchorage of ships, vessels, lighters and boats having on board or being about to take on board such petroleum.

Movement of Petroleum from licensed premises.

## THE SCHEDULE.

## NATURE OF THE TEST APPARATUS.

The apparatus is known as the Abel Petroleum Tester and consists of the following parts:—

1. The oil-cup ;
2. The cover, with slide test-lamp and clockwork arrangement for opening and closing the holes in the cover and for dipping the test flame ;
3. The water-bath or heating vessel ;
4. The tripod stand, with jacket and spirit lamp for heating the water-bath ;
5. The thermometer for indicating the temperature of the oil in the oil-cup ;
6. The thermometer for indicating the temperature of the water in the water-bath ;
7. The thermometer for indicating the temperature of the oil before it is poured into the oil-cup ;
8. The dropping bottle or pipette for replenishing the test-lamp ; and
9. A barometer.

The oil-cup is a cylindrical flat-bottomed vessel, made of gun-metal or brass, and tinned or silvered inside. A gauge is fixed to the inside of the cup to regulate the height to which it is to be filled with the sample under examination.

The cup is provided with a close-fitting overlapping cover, which carries the thermometer, the test-lamp, and the adjuncts thereto. The test-lamp is suspended upon two supports, by means of trunnions, which allow it to be easily inclined to a particular angle and restored to its original position. The socket in the cover, which is to hold a round bulb thermometer for indicating the temperature of the oil during the testing operation, is so adjusted that the bulb of the latter is always inserted in a definite position below the surface of the liquid.

The cover is provided with three holes, one in the centre and two smaller ones close to the sides. These are closed and opened by means of a pivoted slide. When the slide is moved so as to uncover the holes, the suspended lamp is caught by a projection fixed on the slide, and tilted in such a way as to bring the end of the spout just below the surface of the lid. As the slide moves back so as to cover the holes, the lamp returns to its original position. Upon the cover, in front of and in a line with the nozzle of the lamp, is fixed a white bead, the diameter of which represents the size of the test-flame to be used.

The water-bath or heating vessel is so constructed that, when the oil-cup is placed in position in it, an air-space or air-chamber intervenes between the two; consequently, in applying the test under ordinary circumstances, the heat is transmitted gradually to the oil from the hot water through the air-space. The water-bath is fitted with a socket for receiving a long bulb thermometer, to indicate the temperature of the water. It is also provided with a funnel, an overflow-pipe, and two handles.

The water-bath rests upon a tripod stand, which is fitted with a copper cylinder or jacket, so that the bath is surrounded by an enclosed air-space, which retains and regulates the heat. One of the legs of the stand serves as a support for a spirit lamp, which is attached to it by a small swing bracket.

The clockwork arrangement, by which during the operation of testing the slide is withdrawn, and the test-flame dipped into the cup and raised again as the slide is replaced, is provided with a ratchet key for setting it in action for each test, and with a trigger for starting it each time that the test-flame is applied.

## DIRECTIONS FOR PREPARING THE SAMPLE FOR TESTING.

**PREPARING THE SAMPLE FOR TESTING.**—About ten fluid ounces of the oil, sufficient for three tests, are transferred from the bottle into which the sample has been drawn to a pint flask or bottle, which is to be immersed in water artificially cooled until a thermometer, introduced into the oil, indicates a temperature not exceeding 50° Fahrenheit.

## DIRECTIONS FOR PREPARING AND USING THE TEST APPARATUS.

**1. PREPARING THE WATER-BATH.**—The water-bath is filled by pouring water into the funnel until it begins to flow out at the overflow-pipe. The temperature of the water at the commencement of each test, as indicated by the long bulb thermometer, is to be 130° Fahrenheit and this is attained in the first instance by mixing hot and cold water, either in the bath or in a vessel from which the bath is filled, until the thermometer which is provided for testing the temperature of the water gives the proper indication; or the water is heated by means of the spirit-lamp (which is attached to the stand of the apparatus) until the required temperature is indicated.

**2. PREPARING THE TEST-LAMP.**—The test-lamp is fitted with a piece of cylindrical wick of such thickness that it fills the wick-holder, but may readily be moved to and fro for the purpose of adjusting the size of the flame. In the body of the lamp, upon the wick, which is coiled within it, is placed a small tuft of cotton wool moistened with petroleum, any oil not absorbed by the wool being removed. When the lamp has been lighted, the wick is adjusted by means of a pair of forceps, or a pin, until the flame is of the size of the bead fixed on the cover of the oil-cup; should a particular test occupy so long a time that the flame begins to get smaller, through the supply of oil in the lamp becoming exhausted, three or four drops of petroleum are allowed to fall upon the tuft of wool in the lamp from the dropping bottle or pipette provided for that purpose. This can be safely done without interrupting the test.

**3. FILLING THE OIL-CUP.**—Before the oil-cup is filled, the lid is to be made ready for being placed upon the cup, *i.e.*, the round bulb thermometer is to be inserted into the socket (so that the projecting rim of the collar with which it is fitted touches the edge of the socket), and the test-lamp is to be placed in position. The oil-cup, having been previously cooled by placing it bottom downwards in water at a temperature not exceeding 50° Fahrenheit, is now to be rapidly wiped dry, placed on a level surface in a good light, and the oil to be tested is poured in, without splashing, until its surface is level with the point of the gauge which is fitted in the cup. The lid is then put on the cup at once, and pressed down so that its edge rests on the rim of the cup.

**4. APPLICATION OF THE TEST.**—The water-bath, with its thermometer in position, is placed in some locality where it is not exposed to currents of air, and where the light is sufficiently subdued to admit of the size of the entire test-flame being compared with that of the bead on the cover. The cup is carefully lifted, without shaking it, and placed in the bath, the test-lamp is lighted, and the clockwork wound up by turning the key. The thermometer in the oil-cup is now watched, and when the temperature has reached 56° Fahrenheit the clockwork is set in motion by pressing the trigger.

If no flash takes place the clockwork is at once re-wound, and the trigger pressed at 57° Fahrenheit, and so on, at every degree rise of temperature, until the flash occurs, or until a temperature of 95° Fahrenheit has been reached.

If the flash takes place at any temperature below 77° Fahrenheit the temperature at which it occurs is to be recorded. The fresh portions of the sample are then to be successively tested in a similar manner and the results recorded. If no greater difference than 2° Fahrenheit exists between any two of the three recorded results, each result is to be corrected for atmospheric pressure, as hereafter described, and the average of the three corrected results is the flashing point of the sample. In the event of there being a greater difference than 2° Fahrenheit between any two of the results, the series of tests is to be rejected and a fresh series of three similarly obtained, and so on until a sufficiently concordant series is furnished, when the results are to be corrected and the average taken in the manner already described.

No flash which takes place within eight degrees of the temperature at which the testing is commenced shall be accepted as the true flashing point of the sample tested. In the event of a flash occurring at or below 64° when the test is applied in the manner above described, the next testing shall be commenced ten degrees lower than the temperature at which the flash had been previously obtained (that is to say, at 54° or thereunder) and this procedure shall be continued until the results of three consecutive tests do not show a greater difference than 2°.

If a temperature of 76° Fahrenheit has been reached without a flash occurring, the application of the test-flame is to be continued at every degree rise of temperature until a temperature of 95° Fahrenheit has been reached. If no flash has occurred up to this point, the tests shall not be continued, and the testing officer shall certify that the petroleum has a flashing point of over 95°. But if the petroleum is petroleum tar or petroleum fuel, and is declared to have its flashing point at or above 200°, the test shall be continued as follows:—The oil-cup is to be removed from the water-bath, and the temperature of the water in the water-bath is to be reduced to 95° Fahrenheit by pouring cold water into the funnel (the hot water escaping by the overflow-pipe). The air-chamber is then to be filled to a depth of 1½ inches with water at a temperature of about 95° Fahrenheit, the oil-cup is to be replaced in the water-bath, and the spirit-lamp, attached to the water-bath, is to be lighted and placed underneath. The test-flame is then to be again applied, from 96° Fahrenheit, at every degree rise of temperature as indicated by the thermometer in the oil-cup until a flash takes place, or until a temperature of 200° Fahrenheit has been reached. If during this operation the test-flame appears to diminish in size, the lamp is to be replenished in the manner prescribed (at 2) without interrupting the test.

If a flash occurs at any temperature between 76° and 200° Fahrenheit, the temperature at which it occurs, subject to correction for atmospheric pressure, is the flashing point of the sample.

In repeating a test, a fresh sample of oil must always be used, the tested sample being thrown away, and the cup must be wiped dry from any adhering oil, and cooled, as already described, before receiving the fresh sample.

5. CORRECTION FOR ATMOSPHERIC PRESSURE.—As the flashing point of an oil is influenced by changes in atmospheric pressure to an average extent of 1·6 Fahrenheit for every inch of the barometer, a correction of the observed flashing point may become necessary. The true height of the barometer must, therefore, be determined at the time of making the test for the flashing point. To facilitate the correction of a flashing point for pressure a table is appended, giving the flashing points of oils ranging from 65° to 80° Fahrenheit, under pressures ranging from 27 to 31 inches of mercury.

The table is used in the following manner:—

EXAMPLE.—An oil has given a flashing point of 71°, the barometer being at 28·6; take the nearest number to 71° in the vertical column headed 28·6. This number is 70·8. Substitute for this the number in the same horizontal line in the column headed 30 (the normal height of barometer). The Substituted number, *i.e.*, the true flashing point of the oil, is 73°.

TABLE for correction of FLASHING POINTS indicated by the Test for Variations in Barometric Pressure on either side of Thirty Inches.

BAROMETER IN INCHES.																				
27	27·2	27·4	27·6	27·8	28	28·2	28·4	28·6	28·8	29	29·2	29·4	29·6	29·8	30	30·2	30·4	30·6	30·8	31
FLASHING POINT IN DEGREES FAHRENHEIT.																				
60·2	60·5	60·8	61·2	61·5	61·8	62·1	62·4	62·8	63·1	63·4	63·7	64	64·4	64·7	65	65·3	65·6	66	66·3	66·6
61·2	61·5	61·8	62·2	62·5	62·8	63·1	63·4	63·8	64·1	64·4	64·7	65	65·4	65·7	66	66·3	66·6	67	67·3	67·6
62·2	62·5	62·8	63·2	63·5	63·8	64·1	64·4	64·8	65·1	65·4	65·7	66	66·4	66·7	67	67·3	67·6	68	68·3	68·6
63·2	63·5	63·8	64·2	64·5	64·8	65·1	65·4	65·8	66·1	66·4	66·7	67	67·4	67·7	68	68·3	68·6	69	69·3	69·6
64·2	64·5	64·8	65·2	65·5	65·8	66·1	66·4	66·8	67·1	67·4	67·7	68	68·4	68·7	69	69·3	69·6	70	70·3	70·6
65·2	65·5	65·8	66·2	66·5	66·8	67·1	67·4	67·8	68·1	68·4	68·7	69	69·4	69·7	70	70·3	70·6	71	71·3	71·6
66·2	66·5	66·8	67·2	67·5	67·8	68·1	68·4	68·8	69·1	69·4	69·7	70	70·4	70·7	71	71·3	71·6	72	72·3	72·6
67·2	67·5	67·8	68·2	68·5	68·8	69·1	69·4	69·8	70·1	70·4	70·7	71	71·4	71·7	72	72·3	72·6	73	73·3	73·6
68·2	68·5	68·8	69·2	69·5	69·8	70·1	70·4	70·8	71·1	71·4	71·7	72	72·4	72·7	73	73·3	73·6	74	74·3	74·6
69·2	69·5	69·8	70·2	70·5	70·8	71·1	71·4	71·8	72·1	72·4	72·7	73	73·4	73·7	74	74·3	74·6	75	75·3	75·6
70·2	70·5	70·8	71·2	71·5	71·8	72·1	72·4	72·8	73·1	73·4	73·7	74	74·4	74·7	75	75·3	75·6	76	76·3	76·6
71·2	71·5	71·8	72·2	72·5	72·8	73·1	73·4	73·8	74·1	74·4	74·7	75	75·4	75·7	76	76·3	76·6	77	77·3	77·6
72·2	72·5	72·8	73·2	73·5	73·8	74·1	74·4	74·8	75·1	75·4	75·7	76	76·4	76·7	77	77·3	77·6	78	78·3	78·6
73·2	73·5	73·8	74·2	74·5	74·8	75·1	75·4	75·8	76·1	76·4	76·7	77	77·4	77·7	78	78·3	78·6	79	79·3	79·6
74·2	74·5	74·8	75·2	75·5	75·8	76·1	76·4	76·8	77·1	77·4	77·7	78	78·4	78·7	79	79·3	79·6	80	80·3	80·6
75·2	75·5	75·8	76·2	76·5	76·8	77·1	77·4	77·8	78·1	78·4	78·7	79	79·4	79·7	80	80·3	80·6	81	81·3	81·6