

Media Release

PUB ISSUES STOP ORDER ON CRAMOIL SINGAPORE PTE LTD

Company to be charged for discharging dangerous or hazardous substances into public sewers; faces a maximum fine of \$100,000

25 April 2018 – Cramoil Singapore Pte Ltd is the first company issued with a stop-order notice by PUB for illegal discharge of trade effluent containing prohibited dangerous or hazardous substances into the public sewers. With effect from 23 April 2018, the company is not allowed to discharge any used water from its premises into the public sewer.

Mr Tan Kim Seng, Managing Director of Cramoil Singapore Pte Ltd, was served the stop-order notice on 23 April 2018 after the toxic industrial waste collection company was caught in the act of discharging industrial used water containing hazardous Volatile Organic Compounds (VOCs) into the public sewer at its premise (4 Tuas View Lane) on 15 April 2018.

This is not Cramoil's first offence. Since 2010, the company had committed 20 offences of illegally discharging trade effluent containing prohibited VOCs into the public sewer. They had been fined a total of \$52,500.

In the latest incident, Cramoil was caught in the act during PUB's overnight operations. Tests found that the industrial used water discharged contained 16 different types of prohibited VOCs. The concentration levels were dangerously high (*please refer to Annex 1 for details of concentration levels of the VOCs discharged*). At these levels, the VOCs can cause fires in the sewer pipeline and downstream Jurong Water Reclamation Plant (WRP). Additionally, Cramoil's discharge also contained five kinds of metals and chemicals in concentrations that exceeded the allowable limits. These toxic substances pose a danger to workers operating and maintaining the public sewerage system and can upset the used water treatment process.

During the operation, PUB discovered that Cramoil's automatic used water sampler, which is required by PUB to monitor industrial used water discharges from the company's premises into the public sewer, has also been tampered with.

PUB will be pressing charges against Cramoil for contravening section 16A(1) of the Sewerage and Drainage Act (SDA) by illegally discharging trade effluent containing dangerous or hazardous substances into a public sewer. The offence carries a fine of up to \$50,000 upon first conviction and up to \$100,000 for repeat offenders.

“PUB does not condone any blatant disregard of our regulations on illegal discharge of trade effluent, and anyone who wilfully causes harm and danger to our public sewerage system. Strong enforcement action will be taken against those responsible. We will press for deterrent sentences against repeat offenders,” said Mr Maurice Neo, PUB’s Director of Water Reclamation Network.

Protecting the public sewerage system

To protect the public sewerage system from the noxious effects of the hazardous VOCs, metals and chemicals discharged by Cramoil, PUB had issued an immediate stop-order notice, under section 17(1) of the SDA, to bar the company from further discharging any trade effluent.

The stop-order injunction dictates that all discharge of industrial used water from Cramoil’s premises into the public sewer are to cease immediately, until PUB is satisfied with the remedial measures implemented. Cramoil must put in place specific measures within one month from the stop order to treat its trade effluent which contains dangerous or hazardous substances. This is to ensure that the prohibited substances are not present in its discharge into the public sewer. The measures include putting in place adequate treatment facilities, a quality monitoring system, CCTVs to monitor these treatment facilities and the colour of its trade effluent discharge, as well as rectifying its automatic used water sampler which had been tampered with.

Failure to comply with the stop order with immediate effect is an offence under the Sewerage and Drainage Act (SDA), which carries a maximum fine of \$40,000 and, in the case of a continuing offence, to a further fine of \$1,000 for every day or part of the day during which the offence continues.

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Annex 1

Details of concentration levels of VOCs in trade effluent discharged by Cramoil Singapore Pte Ltd on 15 April 2018

PUB's sample analysis of Cramoil's trade effluent that were discharged into the public sewer on 15 April 2018 detected the presence of prohibited VOCs, and also of regulated metals and chemicals. 16 prohibited VOCs were found, many (SN 1 to 10) in dangerously high concentrations. These pose health and safety hazards to our officers maintaining the public sewerage system and can cause a fire in the public sewerage system.

In addition, five regulated metals and chemicals (SN 17 to 21) were found to be far exceeding the allowable limits.

S.N.	Prohibited VOCs specified under Trade Effluent Regulations	Allowable Concentration (in parts per million, ppm)	Concentration from samples collected on 15 April 2018 (in parts per million, ppm)			
			A	B	C	D
1	N,N-dimethylformamide	0	9,022	13,648	3,963	3,906
2	Tetrahydrofuran	0	6,241	20,145	13,460	8,712
3	Methylene Chloride	0	2,473	16,475	19,617	10,173
4	Toluene	0	150	210	1,172	221
5	Heptane	0	2.553	3.264	363	223
6	Hexane	0	2.544	2.183	93.4	78.2
7	Methyl tert-butyl-ether	0	13.3	11.4	49.3	53.2
8	Methyl Ethyl Ketone	0	77.7	86	Not detected	Not detected
9	Benzene	0	16.9	19.9	Not detected	Not detected
10	Xylenes	0	9.085	3.295	12.5	6.633
11	Methyl Isobutyl Ketone	0	4.19	3.579	8.553	4.953
12	Ethylbenzene	0	2.061	2.476	9.088	4.715
13	Trichloroethylene	0	0.166	0.145	3.089	2.051
14	1,2,4-trimethylbenzene	0	0.170	0.337	Not detected	Not detected
15	Decane	0	0.0394	0.0396	0.952	0.474
16	Tetrachloroethylene	0	Not detected	Not detected	0.204	0.119

	Regulated Metals & Chemicals	Allowable Concentration (in milligrams per litre, mg/L)	Concentration from samples collected on 15 April 2018 (in milligrams per litre, mg/L)			
			A	B	C	D
17	Biochemical Oxygen Demand	400	93323	174762	178825	185577
18	Chemical Oxygen Demand	600	259000	403000	428000	450000
19	Total Suspended Solids	400	554	514	2116	1760
20	Total Dissolved Solids	3000	13565	14158	12958	10586
21	Boron	5	126	132	103	100

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Your Reference:
Our Reference: WRN/NMB/TE/2

WATER RECLAMATION (NETWORK) DEPARTMENT
PUBLIC UTILITIES BOARD
40 SCOTTS ROAD, #14-01
ENVIRONMENT BUILDING
SINGAPORE 228231

THE SEWERAGE AND DRAINAGE ACT, CAP. 294 ("THE ACT")
(1) ORDER UNDER SECTION 17(1) OF THE ACT AND
(2) NOTICE UNDER REGULATION 4(5) OF THE SEWERAGE AND DRAINAGE
(TRADE EFFLUENT) REGULATIONS ("THE REGULATIONS")

DISCHARGE OF TRADE EFFLUENT CONTAINING DANGEROUS OR HAZARDOUS
SUBSTANCES INTO THE PUBLIC SEWER

To: Cramoil Singapore Pte Ltd
4 Tuas View Lane
Singapore 637750

Attention: Mr Tan Kim Seng

WHEREAS it is provided under section 17(1) of the Act, that where it appears to the Board that any dangerous or hazardous substance or any trade effluent containing any dangerous or hazardous substance is being or has been discharged into any public sewerage system or any drain-line or sewer communicating with a public sewerage system, the Board may, by order, direct the occupier of any premises from which the substance or trade effluent is being or has been discharged or any other person, who, in the opinion of the Board, has caused or permitted the discharge –

- (a) to immediately cease the discharge of such substance or trade effluent into the public sewerage system or the drain-line or sewer communicating with a public sewerage system;
- (b) to take such steps as may be specified in the order to treat the substance or trade effluent which is complained of; and
- (c) to immediately cease the carrying on of any process or work which produces the substance or trade effluent, either indefinitely or until such steps as are specified in the order have been taken to treat the substance or trade effluent before it is discharged into the public sewerage system or the drain-line or sewer communicating with a public sewerage system.

AND WHEREAS it is provided under regulation 4(5) of the Regulations, that any approval given under regulation 4(1) of the Regulations –

- (a) may be revoked or suspended for any period by the Board without assigning any reason; and

- (b) shall cease to be valid when the person granted the approval fails to comply with these Regulations or any condition imposed under Regulation 4(3).

AND WHEREAS Cramoil Singapore Pte Ltd (“the Company”) located at 4 Tuas View Lane (“the Premises”) was found to have discharged brown trade effluent on 15 Apr 2018 between 0100hr and 0125hrs from the Premises into the public sewer. The discharges have been captured in Close Circuit Television (CCTV) and four brown representative samples, which were collected during the same period from the public sewer. Test reports of these four brown samples showed that they contain dangerous or hazardous substances as defined in section 16A(9)(a) of the Act. The dangerous or hazardous substances discharged include benzene, toluene, ethylbenzene, methylene chloride, methyl tert-butyl-ether, hexane, heptane, methyl isobutyl ketone, N-N-dimethylformamide, methyl ethyl ketone, decane, 1,2,4-trimethylbenzene, xylenes, trichloroethylene, tetrachloroethylene and tetrahydrofuran. The Company had not received the Board’s prior written approval under section 16A of the Act to discharge these substances. In addition, the Company had not received the Board’s prior permission under regulation 11A of the Regulations to discharge these substances.

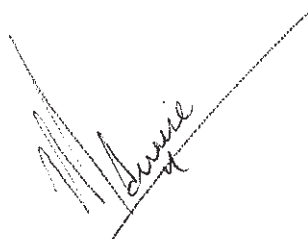
TAKE NOTICE that pursuant to section 17(1) of the Act, the Board hereby directs the Company:

- (a) to immediately cease the discharge of trade effluent into the public sewer from the abovementioned premises, and
- (b) to take the following measures within one month from the date of this order to treat trade effluent which is found to contain dangerous or hazardous substances:
 - i. put in-place treatment facilities such that dangerous or hazardous substances are not present in the Company’s treated trade effluent;
 - ii. put in-place quality monitoring system for treated trade effluent such that any dangerous or hazardous substances can be measured in the Company’s treated trade effluent at the Premises’ last inspection chamber;
 - iii. put in-place CCTV within the Company’s treatment facilities and area near last inspection chamber to monitor the activities of the Company’s staff operating and maintaining treatment facilities and handling unloading of toxic industrial wastes collected;
 - iv. secure the sampling tube of auto-sampler installed at the Premises’ last inspection chamber, which was found to be tampered during our inspection of 15 Apr 2018, such that sampling tube cannot be pulled off from the channel of last inspection chamber;
 - v. put in-place flowmeter at the channel of last inspection chamber to record the flowrate; and
 - vi. put in-place CCTV with the sufficient illumination inside the Premises’ last inspection chamber to monitor the colour of the Company’s discharge.

AND TAKE NOTICE that pursuant to regulation 4(5) of the Regulations, the Board revokes your Written Approval No: TER – 0804 issued on 1 July 2005 under Regulation 4(1) of the Regulations with immediate effect. The Company shall inform the Board upon implementing the measures specified in this order and reapply to the Board for Written Approval to discharge into the public sewer only when the Board is satisfied with the measures implemented.

AND FURTHER TAKE NOTICE that if the Company fails to comply with the requirements of this order, the Board under section 17(5) at all reasonable hours in a day or night, or at such other time as may be agreed with the company enter the Company's premises and take such measures and execute such work as may be necessary to secure compliance with the requirements under this order. Any expenses reasonably incurred by the Board in doing so may be recovered from the Company under section 17(6) of the Act.

Dated this 23rd Apr 2018



MAURICE NEO (MR)
DIRECTOR
WATER RECLAMATION (NETWORK) DEPARTMENT
PUBLIC UTILITIES BOARD
SINGAPORE'S NATIONAL WATER AGENCY

NOTE:

- 1) Please be advised that failure to comply with this order will render you liable to prosecution and on conviction under section 17(4) of the Act to fine not exceeding \$40,000 or to imprisonment for a term not exceeding 3 months or to both and, in the case of a continuing offence, to a further fine of \$1,000 for every day or part thereof during which offence continues after conviction.
- 2) If you need any clarification or assistance, please do not hesitate to contact Mr Eric Liao and Mr Kaushal Raj Chaudhary at Tel No.: Tel: 6517 2202 and Tel No.: 6517 2217 respectively.
- 3) If you are aggrieved by the order under section 17(1) of the Act, you may within 14 days from the date of the order, appeal in writing to the Minister under section 17(2) of the Act.
- 4) Notwithstanding that an appeal has been made under section 17(2) of the Act, you shall comply with the order pending the outcome of the appeal to the Minister and the Board may exercise the powers conferred under section 17(5) of the Act.

Trade Effluent Discharge into Sewers

PUB Regulatory and Monitoring Regime

PUB regulates the discharge of trade effluent from industrial premises through the Sewerage and Drainage Act [SDA] and the Sewerage and Drainage (Trade Effluent) Regulations [TER]. Companies must ensure that their trade effluent discharge complies with the requirements stipulated in the SDA and the TER at all times. This is important to safeguard the public sewerage network and used water resources.

PUB monitors the quality of used water in public sewers continuously through a network of 40 real-time volatile organic compound (VOC) monitoring units at various strategic industrial clusters across Singapore.

Apart from this, PUB also requires high-risk trade premises such as toxic industrial waste collectors and pharmaceutical plants to install VOC monitoring units within their premises to monitor the quality of their discharge. Along with other high-risk trade premises such as wafer fabrication plants, electroplating and metal finishing factories, they must also install automatic used water samplers at the last sewer inspection chambers in their premises. PUB will collect these samples regularly for water quality tests.

Hazardous VOCs

PUB prohibits the discharge of industrial used water, or trade effluent, containing volatile organic compounds (VOCs) into the public sewer due to its hazardous nature. Discharge containing a high concentration of VOCs can cause fires in the sewer pipeline and downstream water reclamation plants (WRPs). Its toxicity is a health and safety hazard and poses a danger to workers operating and maintaining the public sewer system and WRPs.

Regulated Metals and Chemicals

Companies must obtain prior written approval from PUB before discharging industrial used water that contain regulated metal substances and chemical compounds into the public sewer. They must ensure that the discharge complies with the allowable limits. Discharge with excessive regulated metal substances and chemical compounds can disrupt plant operations at the downstream WRPs. This is because high concentrations of such substances are toxic to the micro-organisms, which are critical for the biological used water treatment process at WRPs.

Report Illegal Acts

The public can report incidents of illegal discharge of industrial used water into the public sewer manholes to PUB's 24-hour Call Centre at 1800-CALL-PUB (1800-2255-782) together with details of the location as well as photos and videos that would aid in PUB's investigation.