

**Appendix H**  
**Investigation Report**

**Report No.** 003  
**Monitoring Date** 29 April 2022

According to Table 2.3 of EM&A Manual, the Action and Limit Levels of Odour Patrol are shown below:

Parameter	Action Level (AL)	Limit Level (LL)
Odour Nuisance	Odour Intensity of 2 is measured from odour patrol	Odour Intensity of 3 or above is measured from odour patrol

### Odour Patrol Results

Monitoring Location	Odour Patrol Member			Level Exceedance
	O-1	O-2	O-3	
	Odour Intensity (0 to 4)			
Central PTW Boundary	2	1	2	Action
OM_SCI3	2	2	2	Action
SCISTW Boundary Location C	2	2	2	Action

### Investigation Results:

- a) Causes of exceedances
- With reference to on-site observation, the odour characteristics and potential odour source of Central PTW Boundary, OM\_SCI3 and SCISTW Boundary Location C are listed below:

Location ID	On-Site Observation	
	Odour Characteristics	Potential Odour Source
Central PTW Boundary	Sewage	Central PTW
OM_SCI3	Garbage	Refuse Transfer Station
SCISTW Boundary Location C	Garbage	Refuse Transfer Station / Refuse Vehicles

### OM\_SCI3 and SCISTW Boundary Location C

- OM\_SCI3 and SCISTW Boundary Location C are located near the West Kowloon Refuse Transfer Station. The potential odour source is mainly related to the station and the refuse collection vehicles. The action level exceedance at OM\_SCI3 and SCISTW

Boundary Location C are non-project related.

- Investigation was conducted by DSD to identify the reason / source of exceedance. It was noted that West Kowloon Refuse Transfer Station is located next to the SCISTW. In Hong Kong, a total of seven Refuse Transfer Stations (RTS) is currently in operation. Throughput of West Kowloon Transfer Station is about 2,700 tonnes per day which has the largest throughput among the seven RTS and resulted in high frequency of refuse vehicles going in and out Ngong Shung Road.
- SCISTW Boundary Location C is a monitoring point in front of the West Kowloon Refuse Transfer Station. OM\_SCI3 and WKTS is only separated by Hing Wah Street West only. Therefore, the odour at these two points were largely related to the West Kowloon Refuse Transfer Station. The following diagram shown the location and distance between the corresponding monitoring point and West Kowloon Transfer Station:



- For SCISTW Boundary Location C, the odour patrol conducted on 28<sup>th</sup> January 2022 and 29<sup>th</sup> April 2022 also shown that the potential odour source was refuse transfer station / refuse vehicles. The odour characteristics were both considered to be garbage. With the consistency of results between these two odour patrols, odour nuisance of SCISTW Boundary Location C can be confirmed to be non-project related.
- West Kowloon Refuse Transfer Station (WKTS) is located between SCISTW and OM\_SCI3. As mentioned above, OM\_SCI3 and WKTS is only separated by a street only. As OM\_SCI3 is not actually located at the boundary of SCISTW, odour received by OM\_SCI3 is largely contributed by different sources which is located next to it such as WKTS and seashore.
- The odour smelled at OM\_SCI3 was garbage rather than sewage and it is adjacent to WKRT, which is in operation at the time of monitoring. Odour exceedance at OM\_SCI3 is also can be confirmed to be non-project related. To minimize expenditure on confirmation of result, repeating odour patrol for OM\_SCI3 and SCISTW Boundary Location C is omitted.

Central PTW Boundary

- For Central PTW Boundary (near the gate), odour was recorded continuously under downwind near the gate. The odour is concentrated near the gate (entrance of the Central PTW) while the boundary other than the gate is odourless. Two panelists out of three considered the odour intensity was 2 while the left considered as 1. As the results were not unified, to confirm if the odour nuisance from Central PTW is significant or not, odour patrol at this point is proposed to be conducted to confirm the finding and determine if it is an occasional case.
- Investigation was conducted by DSD to identify the reason / source of exceedance. Odour nuisance was only recorded near the gate. To find out the reason, the performance of deodorization units and the internal monitoring data were checked. No abnormality was recorded and thus the reason for exceedance cannot be defined. Mitigation measures will be implemented if the exceedance is recorded again on the same monitoring stations or any abnormality is recorded.
- To confirm the findings and conclusion, additional odour patrol at Central PTW Boundary was conducted on 18<sup>th</sup> May 2022. The field record and photo record during the patrol are attached in **Annex 1**. On 18<sup>th</sup> May 2022, the odour intensity was 1 for all three panelists. The odour level was acceptable and thus the exceedance recorded on 29<sup>th</sup> April 2022 was considered as an occasional case. The operators are reminded to maintain the equipment and plants in good condition and have a close monitoring on the performance of the deodorization units.

b) Action required under the Event/Action plan  
Refer to Table 2.5 of the EM&A Manual.

c) Action taken under the Event/Action plan

Person-in-charge of Odour Monitoring	DSD
1. After considered the above-mentioned investigation results, the exceedances are non-project related or occasional.	1.&2. Investigation had been carried out within 2 weeks as shown above.
2. Odour patrol at Central PTW Boundary is repeated on 18th May 2022.	3. Mitigation measures will be implemented if the exceedance is recorded again on the same monitoring stations for the next monitoring.

d) Conclusions and Recommendations for mitigation

- All plants and deodorization units were checked to be in normal condition. It is recommended to take more attention on Central PTW and implement more mitigation measures if necessary to better manage the odour from Central PTW.

## **Annex 1**

**Field Record and Photo Record for Additional Odour Patrol on 18<sup>th</sup> May 2022**

Harbour Area Treatment Scheme Stage 2A (Operational Phase)  
Investigation Report on Action Level or Limit Level Non-compliance



Location ID	Panellist	Weather	Time	Temperature (°C)	Relative Humidity (%)	Wind Speed (m/s)	Wind Direction	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
Central PTW Boundary	1	Sunny	1155	26.1	38	0.7	NW	1	Continuous	Downwind	Sewage	Sewage Treatment Plant
	2							1				
	3							1				



## **Appendix I**

### **Calibration Certificate of Portable H<sub>2</sub>S Meter**





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### Calibration and Test Certificate

Product Name: POLI  
 Model Number: MP400P  
                   CO2                  0-5000ppm  
                   LEL                  0-100%LEL  
                   O2                  0-30%  
                   H2S                  0-100ppm

Serial Number: M00401003200  
 Inspection Date: 1/27/2022

#### Calibration and Test Gases

#	Gas	Concentration	Lot#
1	CO2	5000ppm	L74402180
2	CO	60ppm	93401123
	H2S	15ppm	
	O2	18%	
	LEL	50%LEL(2.5%VOL)	
3	N2	99.9%	2005012

#### Test Results:

#	Sensor	Span	UOM
1	CO2	5020	ppm
2	LEL	49	%LEL
3	O2(18% / 0%)	18.0 / 0.0	% / %
4	H2S	15.1	ppm

*This instrument has been calibrated using valid calibration gases and instrument manual operation procedures. Test and calibration data is on file with the manufacturer, mPower Electronics.*

Approved By: *Huiying Yao*

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