

Urgent Return receipt Expand Group Restricted Prevent Copy Commercial

Jenny So Man CHAN/PLAND

寄件者: Hey Hey <info@heyhey.ltd>
寄件日期: 2024年04月08日星期一 17:13
收件者: CC CHANG/EPD
副本: [REDACTED] Jeffrey Po Kit WONG/PLAND; Jenny So Man CHAN/PLAND; info@heyhey.ltd
主旨: RE: A/NE-KLH/640_EPD comments_Additional info
附件: 車流量估算.pdf; Info about our team: Proposed Short Term Tenancy (No. TP0092) at Ex-Wai Tau School
類別: Internet Email

Dear Ms. Maureen CHANG (EPD),

Additional info:

[車流量估算](#)

Our working team to Proposed Short Term Tenancy (No. TP0092)

Meeting with EEB & EPD in 2023 about this RR project included:

EPD: Dr. CHEUNG Chin Wa, Sunny, Asst Dir(Env Compliance)

EEB: Dr. LEUNG Kai Ming, Kenneth, Prin AS for Env & Ecology (Air Policy)

EEB: Mr. CHAN Siu Hung, Louis, Sr Env Protection Offr(Air Policy)3

Hey Hey: Ir NG Derek

Hey Hey: Mr. CHENG Fung

Should you have query, you are welcome to call my mobile [REDACTED] to discuss.

Thanks

Regards,

Derek Ng

Hey Hey Firm Limited

Unit 1, 12/F, Block B, Fuk Keung Industrial Bldg.,

66 Tong Mi Road, Mongkok, Kowloon

T: 2776 3128 F: 2511 0091

From: Hey Hey [mailto:info@heyhey.ltd]

Sent: Monday, April 8, 2024 4:56 PM

To: ccchang@epd.gov.hk

Cc: 'Shing Fung CHAIR/PLAND'; 'Jeffrey Po Kit WONG/PLAND'; 'Jenny So Man CHAN/PLAND'; info@heyhey.ltd

Subject: RE: A/NE-KLH/640_EPD comments

Importance: High

Dear Ms. Maureen CHANG (EPD),

I refer to our telephone conversation on last Friday, 5 April 2024, my responses are as below:

Air Quality

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(i) Please provide the details of the gaseous and odour emissions from the reclamation process for our further review.

Ans: For the gaseous and odour emissions, please refer attached Our Process complies American Standards or China Standards

(ii) Please provide the data of the induced traffic e.g. no. of vehicles/ day for our further review.

Ans: For the data of the induced traffic, please refer attached 車流量估算.

Notes:

1. Our meeting with EEB & EPD meeting in 2023, senior officers requested the plant should be allowed for future expansible, if the quantity of Reclaimed Refrigerant (RR) would increase in future market.
2. Any increase of building structure or car space within site boundary in future, a new planning application from occupant to Town Planning Board is required.

Non-fuel gas dangerous good risk

(iii) Please provide the details of the whole reclamation process for our further review.

Ans: For the details of the whole reclamation process, please refer attached The operation and maintenance of the proposed Refrigerants Reclamation Plant.

(iv) Please provide the names, the storage inventories and locations of all the hazardous materials on-site.

Ans: Names are HCF gases, at the moment is R134a as per the request of EEB and EMSD. They will be stored in DG Stores on-site.

Note: Our next meeting with EMSD about this RR project is scheduled on 25 April 2024.

(v) Please discuss whether there are any mitigation measures for the leakage of flammable and/ or toxic materials.

Ans: Refer to American Standards : AHRI700, there is no flammable and/ or toxic materials to be leaked in the process. Nevertheless, a reference of other project of EIA_Siu Ho Wan Construction Site is attached.

(vi) Please check whether there is any fuel gas to be stored on-site e.g. LPG and seek EMSD's view from fuel gas risk perspective.

Ans: No fuel gas to be stored on-site.

Road Traffic Noise / Fixed Noise

(vii) Please provide the relevant details to address the potential road traffic noise impact due to the induced traffic during the operation of the Site.

Ans: According to attached 車流量估算, the traffic flow is relatively small and road traffic noise impact will not be caused.

(viii) The applicant should also elaborate the process of refrigerant reclamation such as the machinery involved, operating hours, whether such process is carried out indoor and any noise mitigation measures to address the potential operation noise from the refrigerant reclamation process.

Ans: For details, please refer attached The operation and maintenance of the proposed Refrigerants Reclamation Plant.

(ix) Please note the noise emanating from the operation of the Site is controlled under the NCO and the applicant is reminded to ensure the compliance of the requirements under the NCO.

Ans: Noted.

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(x) The environmental assessment shall also cover water quality, waste, land contamination and sewerage aspect of the proposed development.

Ans: Noted.

Regards,
Derek Ng
Hey Hey Firm Limited
Unit 1, 12/F, Block B, Fuk Keung Industrial Bldg.,
66 Tong Mi Road, Mongkok, Kowloon
T: 2776 3128 F: 2511 0091

From: Jenny So Man CHAN/PLAND [<mailto:jsmchan@pland.gov.hk>]
Sent: Friday, April 5, 2024 10:52 AM
To: info@heyhey.ltd
Cc: [REDACTED]; Jeffrey Po Kit WONG/PLAND
Subject: A/NE-KLH/640
Importance: High

Dear Mr. Ng,

I tried to call but in vain and left a message to your secretary. Grateful if you can call me back regarding those documents you shared with Mr. Wong previously. Besides, please find the comments from Environmental Protection Department for consideration.

Comments from EPD (Contact Person: Ms. Maureen CHANG at 2835 1867)

We consider the proposed use would likely generate environmental impacts to the surrounds. Hence, an environmental assessment including the following information to confirm the environmental acceptability of the proposed use shall be provided to support the subject planning application.

Air Quality

(i) Please provide the details of the gaseous and odour emissions from the reclamation process for our further review.

(ii) Please provide the data of the induced traffic e.g. no. of vehicles/ day for our further review.

Non-fuel gas dangerous good risk

(iii) Please provide the details of the whole reclamation process for our further review.

(iv) Please provide the names, the storage inventories and locations of all the hazardous materials on-site.

(v) Please discuss whether there are any mitigation measures for the leakage of flammable and/ or toxic materials.

(vi) Please check whether there is any fuel gas to be stored on-site e.g. LPG and seek EMSD's view from fuel gas risk perspective.

Road Traffic Noise / Fixed Noise

(vii) Please provide the relevant details to address the potential road traffic noise impact due to the induced traffic during the operation of the Site.

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(viii) The applicant should also elaborate the process of refrigerant reclamation such as the machinery involved, operating hours, whether such process is carried out indoor and any noise mitigation measures to address the potential operation noise from the refrigerant reclamation process.

(ix) Please note the noise emanating from the operation of the Site is controlled under the NCO and the applicant is reminded to ensure the compliance of the requirements under the NCO.

(x) The environmental assessment shall also cover water quality, waste, land contamination and sewerage aspect of the proposed development.

If you wish to provide further information to address the departmental comments, please make reference to relevant town planning board guideline i.e. TPB PG-No. 32B.

Best regards,

Jenny CHAN

TP/TP6

Sha Tin, Tai Po and North District Planning Office

Planning Department

Tel: 2158 6235

**HEY
HEY** 



The operation and maintenance of the proposed Refrigerants Reclamation Plant.

By Hey Hey Firm Limited

Content

	Description	Page
1	Background	3
2	Operation logistics	5
	2.1 Step 1: On-site collecting and transporting the used refrigerant to the plant	
	2.2 Step 2: Purification and reclamation of used refrigerant	
	2.3 Step 3: Testing and certification of reclaimed refrigerant	
3	Storage and Wholesaling Types of HFC refrigerants	11

1. Background

Under the Montreal Protocol, refrigerants containing Ozone Depleting Substances such as HCFCs and CFCs have been banned from import in Hong Kong since 2020. Nowadays, the most commonly used alternative HFCs like R-410A and R-134A which are free of HCFCs and do not harm the ozone layer. However, these refrigerants are known to have high global warming potential (GWP) and cause global warming. In June 2021, China officially ratified the Kigali Amendment to the Montreal Protocol. According to the Kigali Amendment, Hong Kong must establish and implement an import and export licensing control system for HFCs and import quota control to progressively reduce the use of HFCs by 85 per cent from the baseline level by 2036. With limited import of HFCs, reclamation of used refrigerants seems to be one of the solutions to deal with the high demand.

Environment and Ecology Bureau (EEB) carried out a Regulate and Phase Down Hydrofluorocarbons (HFCs) Public Consultation on 19 July 2023.



Hey Hey Firm Limited has been following the Policy of EEB on Regulate and Phase Down HFCs and is applying a governmental vacant land to establish a proposed Refrigerants Reclamation Plant for the implementation on such policy.

受限制設備 Restricted Equipment

受限制設備的類別	GWP 上限	生效日期	
		禁止進口或生產	禁止出售、供應、 要約出售或要約 供應
室內冷氣機(分體式或窗式, 額定製冷量小於 7.5 千瓦)	750	2025 年 1 月 1 日	2026 年 1 月 1 日
家用雪櫃、冰櫃及雪櫃與冰櫃組合	150	2025 年 1 月 1 日	2026 年 1 月 1 日
商用冷凍設備 - 獨立系統	150	2025 年 1 月 1 日	2026 年 1 月 1 日
商用冷凍設備 - 冷凝機組	1500	2025 年 1 月 1 日	2026 年 1 月 1 日
	150	2028 年 1 月 1 日	2028 年 1 月 1 日
商用冷凍設備 - 超級市場系統	1500	2025 年 1 月 1 日	2026 年 1 月 1 日
	150	2028 年 1 月 1 日	2028 年 1 月 1 日
冷凍倉庫系統	1500	2025 年 1 月 1 日	2026 年 1 月 1 日
	150	2028 年 1 月 1 日	2028 年 1 月 1 日
風冷式冷水機	750	2025 年 1 月 1 日	2026 年 1 月 1 日
水冷式冷水機	150	2025 年 1 月 1 日	2026 年 1 月 1 日
私家車的汽車空調機 (私家車根據《道路交通條例》(第 374 章)的定義)	150	生產年份 2027 年	生產年份 2027 年
滅火系統	15	2025 年 1 月 1 日	2026 年 1 月 1 日

Category of Restricted Equipment	GWP Limit	Effective date	
		Prohibition of import or manufacture	Prohibition of sale, supply, offer for sale or offer for supply
Room air-conditioner (split type or window type, with rated cooling capacity < 7.5kW)	750	1 Jan 2025	1 Jan 2026
Household refrigerator, freezer and refrigerator combined with freezer	150	1 Jan 2025	1 Jan 2026
Commercial refrigeration - stand-alone system	150	1 Jan 2025	1 Jan 2026
Commercial refrigeration - condensing unit	1500	1 Jan 2025	1 Jan 2026
	150	1 Jan 2028	1 Jan 2028
Commercial refrigeration - supermarket system	1500	1 Jan 2025	1 Jan 2026
	150	1 Jan 2028	1 Jan 2028
Cold storage warehouse system	1500	1 Jan 2025	1 Jan 2026
	150	1 Jan 2028	1 Jan 2028
Air-cooled chiller	750	1 Jan 2025	1 Jan 2026
Water-cooled chiller	150	1 Jan 2025	1 Jan 2026
Motor vehicle air-conditioning - private car (as defined in the Road Traffic Ordinance, Cap.374)	150	Manufacture year 2027	Manufacture year 2027
Fire suppression system	15	1 Jan 2025	1 Jan 2026

In Public Consultation, EEB proposed the timetable for execution of HCFs' policy as below:
 Prohibition of import or manufacture : Effective date is 1 Jan 2025
 Prohibition of sale, supply, off for sale or offer for supply : Effective date is 1 Jan 2026

According to the proposal announced by EEB in public consultation. EMSD has taken action and sent an email for the preparation of tender to us, Hey Hey regarding our compliance list on reclaimed refrigerant R134a.

Dear Derek,

Further to preceding emails, please find the draft technical specification of reclaimed refrigerant R134a as attached for your information. Grateful if you could provide the (1) compliance list of the draft specification with counter-proposal for non-compliance item(s), and 2) indicative price for our consideration on or before 15 January 2024.

Many thanks.

Regards,
 FUNG Lai-shan, Joanna
 Engineer/Gas Standards B4/2
 Electrical and Mechanical Services Department
 Tel: 2808 3836
 Fax: 2576 5945

機電工程署
EMSD



2. Operation logistics

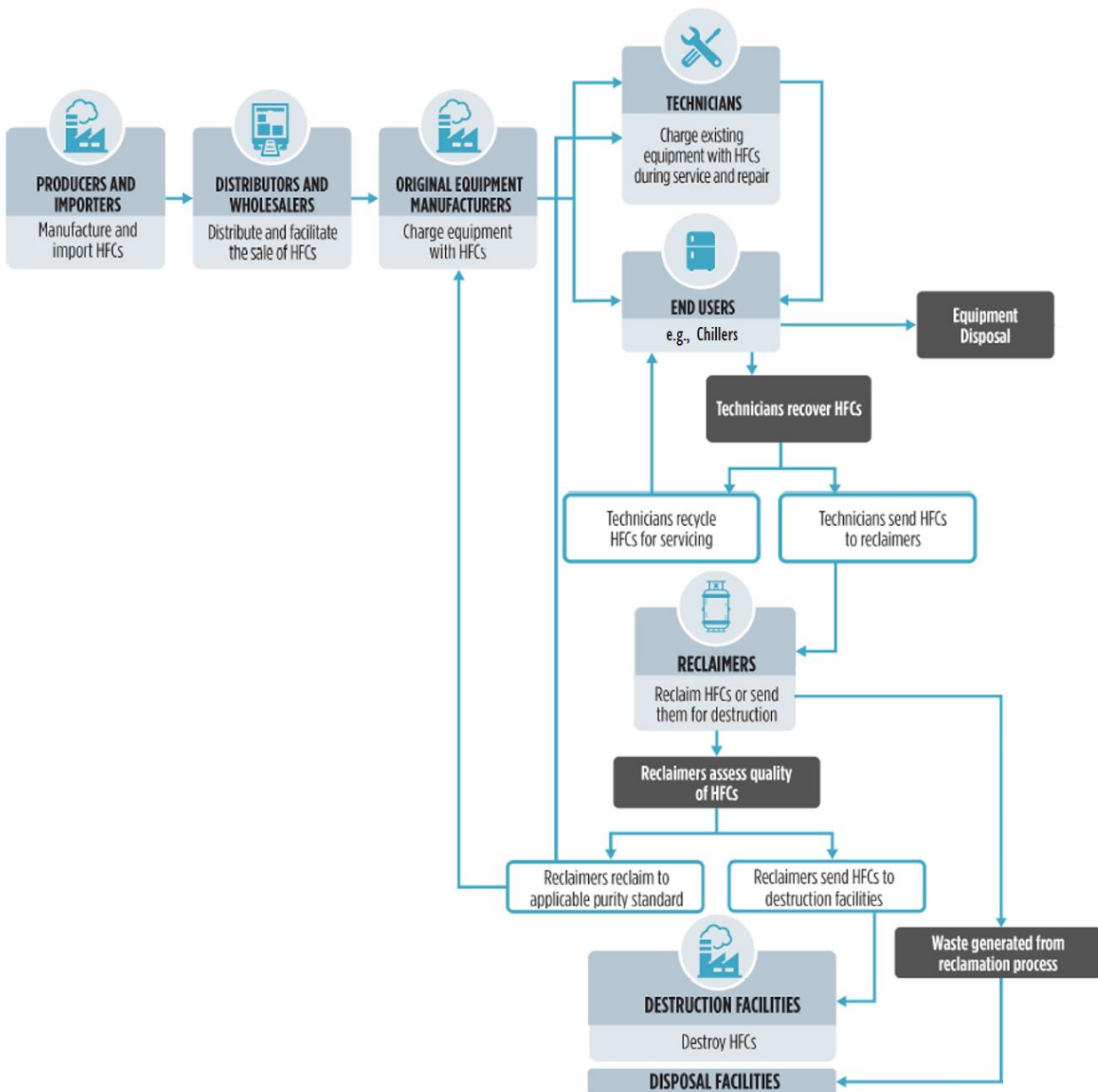
The idea of reclamation and reuse of refrigerant would not succeed without comprehensive supporting services including the collection of used refrigerant and retail sale. The whole logistic is illustrated as below in Figure 1. Maintenance work is keeping the equipment operating safely and efficiently.

Step 1: On-site collecting and transporting the used refrigerant to the plant

Step 2: Purification and reclamation of used refrigerant

Step 3: Testing and certification of reclaimed refrigerant

Figure 1. The operation logistic of refrigerant reclamation business



2.1 Step 1: On-site collecting and transporting the used refrigerant to the plant

The liquid state and vapor state refrigerant in the recovered unit is directly sucked by the compressor of Refrigerant Recovery Station. During the discharging process, it will go through the condenser of Refrigerant Recovery Station and then filled into the cylinder for storage.

System flow diagram as below: *Figure 2. Refrigerant recycle system*

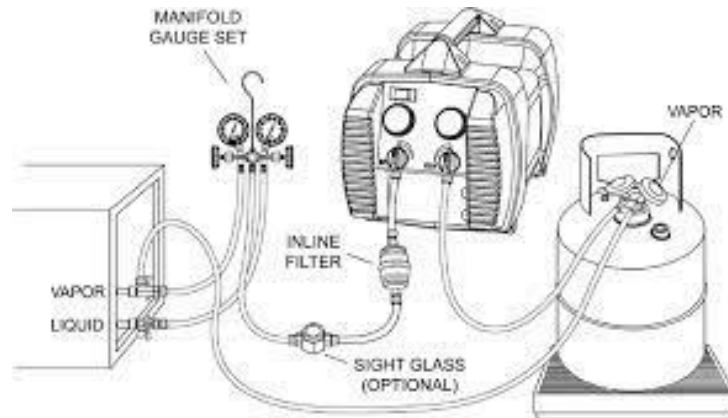


Figure 3. Application of refrigerant recycle system on chillers



Figure 4. Application of refrigerant recycle system on vehicles

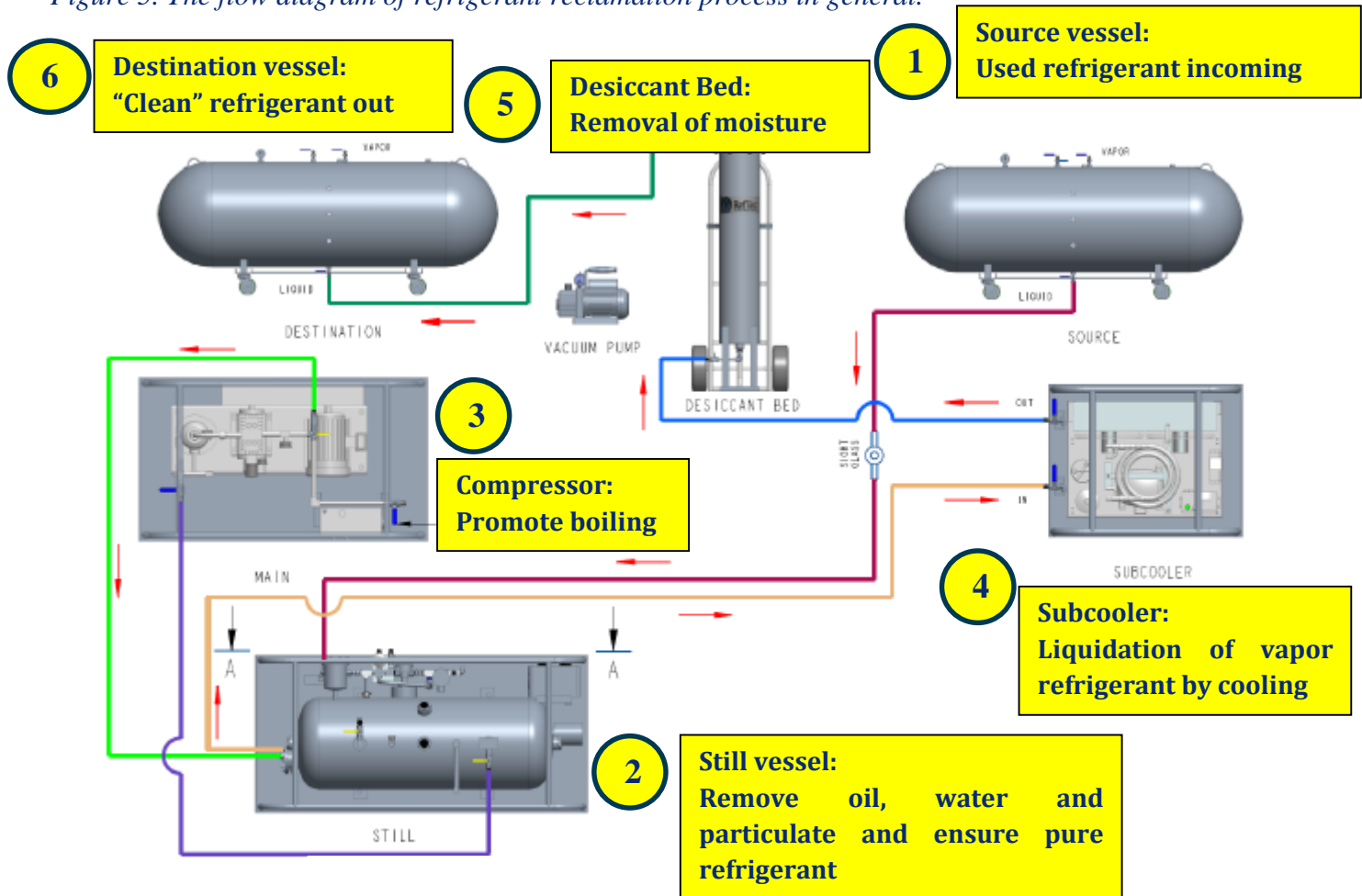


2.2 Step 2: Purification and reclamation of used refrigerant

On-site collecting used refrigerant would then transport to Refrigerant Reclamation Plant.

To restore the used refrigerant to AHRI Standards (American National Standards) or GB Standards (China National Standards), it must pass through a series of reclamation process. The general principle of the reclamation process is illustrated in Figure 5 below.

Figure 5. The flow diagram of refrigerant reclamation process in general.



List of equipment:

- Equipment 1 - Source vessel
This vessel contains and supplies used refrigerant to the still vessel.
- Equipment 2 – Still vessel
The still vessel holds the refrigerant as they are heated via the heat exchanger in the bottom of the still vessel. During the process, the oil-less vapors will be pulled away by the compressor.
- Equipment 3 – Compressor
The oil-less vapors will be compressed and go directly to the heat exchanger for boiling.
- Equipment 4 – Sub-cooler
The refrigerant from the still vessel will travel to the sub-cooler to be further cooled to liquid state.

- Equipment 5 – Desiccant bed

The refrigerant will pass through the desiccant and moisture will be removed.

- Equipment 6 – Destination vessel

The clean refrigerant will be collected in destination vessel. The size of the vessel can vary depending on the demand.

2.3 Selected sample equipment for purification and reclamation of used refrigerant

RefTec International Systems, LLC is a USA equipment manufacturer. Its products complied with AHRI 700 standard, named “Bull Dog System”. Quotation is shown in Appendix C - RefTec quote: Reclaimed refrigerant equipment prices.



Equipment 2– Still vessel and Equipment 3 – Compressor. Model: Bull Dog 460v 15Hp 8"-5" SS Vessel w/ D391 Corken Compressor w/ 3/4" connections, as below.



Equipment 4 – Sub-cooler. Model: Large Bull Dog Sub Cooler 208/230V 1ph-5 Tons, as below.



Equipment 5 – Desiccant bed, Model: Desiccant Bed 3/4" Connections w/ Flange Top, as below.

Item Name:
Desiccant Bed
Item #:
BDDB001

Product Image Gallery



- Dehydrate chiller charges
- Removes moisture to meet ARI 700 Standards
- Portable
- Capable of being vacuumed down to reuse desiccant

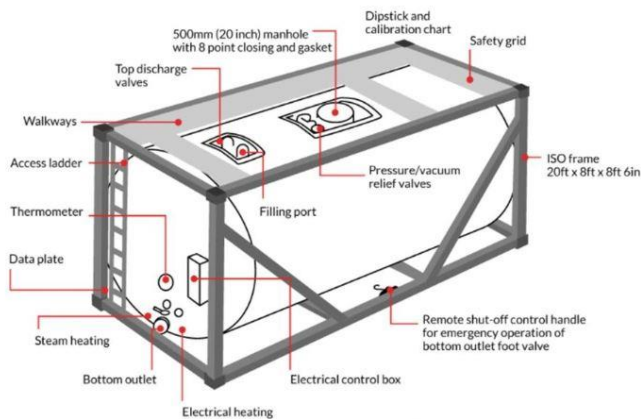


Equipment 5a – Vacuum Pump. Model: Mini Purge 240 Volt, as below.



RefTec International Systems, LLC is a USA equipment manufacturer does not have the product of large size of Refrigerant Storage Tank. We have sourced a tank manufacture named WOBO Industrial Group Corp. and its product “ISO Tank” is compatible with Bull Dog System after getting the confirmation from RefTec International Systems.

Equipment 1 –Source vessel and Equipment 6 – Destination vessel, Model: ISO Tank; Type: T50 High Pressure Tank for Refrigerant. Ranged size of tank are from 1000L (1 Ton) to 300000L (300 Tons), as below.



WOBO Industrial Group Corp.



2.3 Step 3: Testing and certification of reclaimed refrigerant

Certifying all reclaimed refrigerants after processing are costly and not feasible. Sample of reclaimed refrigerant to be tested are common practice in USA and European countries. Sample achieving any of below standards is considered to be passed the level of clean quality of reclaimed refrigerant.

- AHRI standard 700 (Practicing in USA)
- Eurovent Certita Certification Standard (Practicing in European countries)
- Relevant reclaiming refrigerant standard in Mainland China.

AHRI 700 Specifications

The table below summarizes the maximum allowable levels of contaminants for the common refrigerants.

Table 2. Maximum allowable levels of various contaminants as stipulated in AHRI 700 standard

	Reporting Units	R-22	R-134a	R410-a
Characteristics				
Refrigerant components	N/A	-	-	R-32/125
Nominal composition	% by weight	-	-	50.0/50.0
Allowable composition	% by weight	-	-	48.5-50.5/ 49.5-51.5
Bubble point	°C @ 101.3 kPa	-	-	-51.4
Dew point	°C @ 101.3 kPa	-	-	-51.4
Boiling point	°C at 101.3 kPa	-40.8	-26.1	-
Boiling point range	K	±0.3	±0.3	-
Critical temperature	°C	96.2	101.1	71.4
Isomer content Isomer	% by weight	-	0-0.5 R-134	-
Vapor Phase Contaminates:				
Air and other non-condensable, (max.)	% by weight at 25.0 °C	1.5	1.5	1.5
Liquid Phase Contaminates:				
Water, (max.)	ppm by weight	10	10	10
All other volatile impurities, (max.)	% by weight	0.5	0.5	0.5
High boiling residue, (max.)	% by volume	0.01	0.01	0.01
Particulates/solids	Pass / Fail	Visually clean	Visually clean	Visually clean
Acidity (max.)	Ppm by weight (as HCl)	1	1	1
Chloride	Pass / Fail	No visible turbidity	No visible turbidity	No visible turbidity

3. Storage and Wholesaling Types of HFC refrigerants

There are no reclaimed refrigerant gases selling in Hong Kong nowadays. Retailers only sell new gases or named virgin gases. Common HFCs include: R-22, R-134A, R-407C, R-404A & R-600A.

R-134A and R-410A are the most common HFC refrigerants adopted for Chillers and large cooling capabilities equipment.

Proposed Storage and Wholesaling Sizes of HFC refrigerant gases cylinder include:

6.2lbs, 7.2lbs, 22lbs, 25lbs, 30lbs, 50lbs.

Figure 5. Storage and wholesaling HFC refrigerant gases cylinder in A-Gas, a Refrigerants Reclamation Plant in UK



Table 3. Standard Contaminated Refrigerant Samples⁴

Contaminants	Refrigerant Type															
	R-11	R-12	R-13	R-22	R-23	R-113	R-114	R-123	R-124	R-134a	R-500	R-502	R-503	R-401A	R-401B	R-402A
Moisture Content: ppm by Weight of Pure Refrigerant	100	80	30	200	30	100	85	200	200	200	200	200	30	200	200	200
Particulate Content: ppm by Weight of Pure Refrigerant ¹	80	80	N/A	80	N/A	80	80	80	80	80	80	80	N/A	80	80	80
Acid Content: ppm by Weight of Pure Refrigerant ²	100	200	N/A	100	N/A	100	100	100	100	100	200	100	N/A	100	100	100
Oil (HBR) Content: % by Weight of Pure Refrigerant	20	5	N/A	5	N/A	20	20	20	5	5	5	5	N/A	5	5	5
Viscosity/Type ³	300/MO	150/MO	N/A	300/MO	N/A	300/MO	300/MO	300/MO	150/MO	150/MO	150/MO	150/MO	N/A	150/AB	150/AB	150/AB
Non-Condensable Gases (Air Content): % by Volume	N/A	3	3	3	3	N/A	3	N/A	3	3	3	3	3	3	3	3

Notes:

1. Particulate content shall consist of inert materials and shall comply with particulate requirements in Appendix D.
2. Acid consists of 60% oleic acid and 40% hydrochloric acid on a total number basis.
3. POE = Polyoester, AB = Alkylbenzene, MO = Mineral Oil.
4. N/A means not applicable

1%=10,000 ppm

Our product is R-134a
If Reclaimed Refrigerant 回收雪種=1000g

Moisture 水分 = 20g
 Particulate 顆粒物 = 8g
 Acid 酸 = 10g
 Oil 油 = 50g
 Non-Condensable Gases 不凝性氣體 = 30g

Contaminated amounts are very small.
 Contaminated items are not poisoned!
 (Moisture, particulate, acid, oil and non-condensable gases)

Appendix 9.1 Implementation Schedule of Mitigation Measures Recommended in HAZOP Study

The following mitigation measures were identified during the HAZOP Study. These mitigation measures are generally safety measures and would not be included in the Environmental Monitoring and Audit Manual. It is recommended to include the following measures into the contractual document to ensure their implementation.

Table A9.1 Mitigation Measures Recommended to Avoid Occurrence of Hazardous Scenarios Related to Chlorine

EIA Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Stages *			Relevant Legislation & Guidelines
				D	C	O	
Construction Phase							
S9.5.1	<p>Monitoring and Inspection</p> <p>Monitor the excavation activity to avoid excavation to the wrong depth (too much excavation) Conduct monitoring to ensure the stability of building during construction phase Inspection and supervision to ensure operation of equipment properly Inspection of excavation progress near Chlorine Building and Chemical Storage Building</p>	Inside Siu Ho Wan WTW/ throughout construction stage	<ul style="list-style-type: none"> Contractor Contractor Safety Officer (Contractor)/ Contractor Safety Officer (Contractor)/ Contractor 		√		EIAO-TM F&IUO DGO
S9.5.1	<p>Management</p> <p><i>Waste Management</i> Ensure good C&D waste management Provide on-site sorting of debris to avoid excessive debris accumulation Provide temporary storage for debris at appropriate location Ensure flammable waste is stored at appropriate/designated location</p>	Inside Siu Ho Wan WTW/ throughout construction stage	<ul style="list-style-type: none"> Contractor Contractor Contractor Contractor 		√		EIAO-TM F&IUO DGO

EIA Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Stages *			Relevant Legislation & Guidelines
				D	C	O	
S9.5.1 and S9.5.6	<p><i>Traffic Management</i></p> <p>Maintain access roads as a freeway</p> <p>Provide sufficient maintenance of the vehicle/generator/equipment</p> <p>Set a speed limit for site vehicle</p> <p>Propose a designated route for site vehicles, avoid site vehicle using travelling route of the Chlorine Delivery Truck</p> <p>Provide adequate fire fighting equipment at the storage area</p> <p>Provide clear road signs for site vehicles</p> <p>Install hump on the access roads to reduce the speed of site vehicles</p> <p>Provide crash barrier to protect the Chlorine Building and the Chemical Storage Building</p> <p>No parking on access road, or proper parking area designated for dump trucks</p> <p><i>Chemicals/material Management</i></p> <p>Ensure good management of material delivery to avoid excessive material stock on site</p> <p>Avoid incompatible chemicals storing together; provide separate storage locations for different chemicals which are incompatible to each other</p> <p>Provide appropriate labels according to Dangerous Goods Ordinance</p> <p>Follow Fire Services Department's requirement for flammable waste storage</p> <p>Keep the amount of flammable waste stored at a minimum level</p> <p>Ensure adequate separation distance between each flammable material storage area</p> <p>No stockpile of material near the Chlorine Building and the access road is allowed</p>		<ul style="list-style-type: none"> • Contractor • Contractor • Contractor • Contractor • Contractor • Contractor • Contractor • WSD/ Contractor • Contractor • Contractor • Contractor • Contractor • Contractor • Contractor 				

EIA Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Stages *			Relevant Legislation & Guidelines
				D	C	O	
S9.5.1	<p>Follow the requirements stipulated in Dangerous Goods Ordinance and its subsidiary regulations for the storage, conveyance and use of potassium permanganate, nitrogen and other substances giving inflammable vapour during the construction stage</p> <p>Follow EPD's requirement for the storage and conveyance of chemical waste</p> <p><u>Construction Activity/personnel Management Personnel</u></p> <p>Ensure sufficient guarding at Siu Ho Wan WTW to provide sufficient access control</p> <p>Provide clear indication of rooms accommodating chlorine-related facilities and their hazards</p> <p><u>Activity</u></p> <p>Propose a communication system between operator of Siu Ho Wan WTW and the Contractor on the date of chlorine delivery to the WTW</p> <p>Prepare a safety plan to avoid any electricity supply facilities located inside/adjacent to the Chlorine Building</p> <p>Propose a "Permit-to-move" system for large equipment/plant movement:</p> <ul style="list-style-type: none"> • Contractor provides WSD a list indicating the number and type of equipment/plant to be mobilized, equipment/plant movement route and mobilization methodology • A risk assessment is conducted by Safety Officer (Contractor) • No equipment/plant movement should be allowed before approval from 		<ul style="list-style-type: none"> • Contractor • Contractor • WSD/ Contractor • WSD/ Contractor • WSD/ Contractor • Contractor • WSD/Safety Officer (Contractor)/ Contractor 				

EIA Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Stages *			Relevant Legislation & Guidelines
				D	C	O	
S9.5.1	<p>WSD/Safety Officer is obtained</p> <ul style="list-style-type: none"> The "Permit" shall restrict the time period that equipment/plant can be mobilized Supervision of permitted work by Safety Representatives from Contractor <p>Follow WSD's "Permit-to-work" System for extended chlorine pipework connection</p> <ul style="list-style-type: none"> No connection work can commence before approval from WSD is obtained Supervision of permitted works by the Contractor's Safety Representative <p>No blasting operation on site is allowed</p> <p>Define restricted zone for the equipment (i.e. keep the equipment from the Chlorine Building at a safe distance). The extent of the restricted zone would be determined by the size of the equipment</p> <p>Restrict excavation along travelling route of the Chlorine Delivery Truck</p> <p>Limit the reach of the tower crane used</p> <p>Provide indication/sign for chlorine pipeworks</p> <p>Ensure generators are placed at a safe distance from Chlorine Building</p> <p>Provide method statement with protective measures for the chlorine dosing pipeworks (and other facilities)</p> <p>Avoid welding operation inside buildings installed with chlorine pipeworks</p> <p>If welding is unavoidable, "Hot-work permit" system should be applied for welding operation inside buildings installed with chlorine pipeworks:</p> <ul style="list-style-type: none"> No welding work is allowed before approval from WSD is obtained 		<ul style="list-style-type: none"> WSD/ Safety Representative (Contractor)/ Contractor Contractor Contractor Contractor Contractor Contractor Contractor Contractor WSD/ Safety Representative (Contractor)/ Contractor 				

EIA Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Stages *			Relevant Legislation & Guidelines
				D	C	O	
	<ul style="list-style-type: none"> Provide supervision to the operations inside buildings installed with chlorine pipeworks by the Safety Representative from Contractor <p><i>Landscaping Work Management</i></p> <p>Avoid plantation of deep root trees near buildings, especially Chlorine Building Trim any vegetation near the chlorine building or work site prevent the spread of fire</p>		<ul style="list-style-type: none"> Contractor Contractor 				
S9.5.1	<p>Investigation</p> <p>Investigate the lateral support of buildings/excavation to ensure proposed extent of excavation would not affect building stability Locate chlorine pipeworks before execute excavation</p>	Inside Siu Ho Wan WTW/ throughout construction stage	<ul style="list-style-type: none"> Engineer/ Contractor Contractor 		√		EIAO-TM
S9.5.1	<p>Training</p> <p>Provide adequate training to equipment operator; implement a license system that only competent persons could operate the equipment Provide adequate training to construction workers on the rooms accommodating chlorine-related facilities and their associated hazards Provide adequate training to construction workers on the nature and hazards of chlorine, safety precautions and emergency measures for leakage of chlorine from cylinders, piping or installations.</p>	Inside Siu Ho Wan WTW/ throughout construction stage	<ul style="list-style-type: none"> Contractor Contractor Contractor 		√		EIAO-TM F&IUO OSHO DGO

Operation Phase						
N/A	N/A	N/A	N/A			N/A

All recommendations and requirements resulted during the course of EIA / EA Process, including ACE and / or accepted public comment to the proposed Project.
 * D = Design, C = Construction and O = Operation
 N/A **Not applicable**

Table A9.2 Other Appropriate Measures Recommended to be Implemented During Construction Stage

EIA Ref [#]	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Stages *			Relevant Legislation & Guidelines
				D	C	O	
Construction Phase							
S9.5.5	<p>Traffic Management</p> <p>Maintain all access roads of fire engine/FSD vehicles/ambulance as a freeway No equipment/plants and site vehicle is allowed to park on the access roads</p>	inside Siu Ho Wan WTW/ throughout construction stage	<ul style="list-style-type: none"> Contractor Contractor 		√		EIAO-TM
S9.5.5	<p>False Alarm Preventive Measures</p> <ul style="list-style-type: none"> Provide dust suppression measures such as covering the dusty material Implement ‘Hot-work Permit’ system and provide sufficient ventilation during welding operation to avoid accumulation of smoke Place the generators away from the chlorine leak/smoke detector alarms Park the construction equipment and vehicles away from the Chlorine Building Notify WSD prior to the use of chemical compounds and provide sufficient ventilation during operation involving chemicals 	inside Siu Ho Wan WTW/ throughout construction stage	<ul style="list-style-type: none"> Contractor Contractor Contractor Contractor Contractor 		√		EIAO-TM F&IUO DGO

EIA Ref#	Environmental Protection Measures	Location / Timing	Implementation Agent	Implementation Stages *			Relevant Legislation & Guidelines
				D	C	O	
S9.5.5 and S9.5.6	<p>Measures to be stipulated in emergency plan</p> <ul style="list-style-type: none"> • Provide a system for logging in-out record of all site staff, which could assist immediate investigation and rescue in a chlorine leak incident when required • Ensure construction workers be familiar with chlorine alarm system (e.g. proper training) • Propose construction workers to participate regular joint chlorine leak drill arranged by WSD, and inform local fire stations in advance • Propose alternative assembly point(s) for construction workers in case of chlorine leakage event 	Inside Siu Ho Wan WTW/ throughout construction stage	<ul style="list-style-type: none"> • Contractor • Contractor • Contractor • Contractor 		√		EIAO-TM F&IUO
S9.5.6	<p>Others</p> <ul style="list-style-type: none"> • Provide sufficient number of fire extinguishers • Provide copies of the safety and emergency plans to local fire stations for information • Brief local fire stations for the implementation of safety and emergency plans 	Inside Siu Ho Wan WTW/ throughout construction stage	<ul style="list-style-type: none"> • Contractor • Contractor • WSD/ Contractor 		√		EIAO-TM F&IUO

Proposed use:
Proposed temporary dangerous goods godown and industrial use
By Hey Hey Firm Limited

	車位數量	每車位每日預計流 量	每日預計各款車總流量
汽車	4	2	8
中型貨車	8	2	16
			每日預計總車流量
			24

工程及有關顧問公司遴選委員會 (EACSB)

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香港特別行政區政府認可名冊證明

現證明威豪設計顧問有限公司已列入《工程及有關顧問公司遴選委員會顧問公司名單》，詳情如下：

類別	組別	公司名稱代號
基建及發展	第一組	EAC0105 (CE)
機電	第一組	EAC0105 (EM)
環境	第一組	EAC0105 (EP)
水務	第一組	EAC0105 (WS)

本秘書處會根據最新資料適時更新《工程及有關顧問公司遴選委員會顧問公司名單》，有關名單的最新版本可參閱以下網址：
<https://www.cedd.gov.hk/tc/publications/eacsb-handbook/index.html>

香港特別行政區政府
工程及有關顧問公司遴選委員會秘書

(鄭綺碧



代行)

副本送：發展局 (總助理秘書長(工務)7)
副本存：EACSB 1/4/491 RC

二零二一年八月二十四日