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Aiden Shing Pak CHU/PLAND

寄件者:	tmylwdpo_pd/PLAND
寄件日期:	2025年08月20日星期三 12:27
收件者:	Aiden Shing Pak CHU/PLAND
副本:	Kennie MF LIU/PLAND; Sharon Tsun Tung WAN/PLAND
主旨:	轉寄: s.16 Planning Application No. A/TM/600 - Supplementary Information Submission
附件:	Correspondance between Achelous and Fire Services Department.pdf; Response_to_EPD_Comments_r2_Aug 19, 2025.docx

From: tpbpd/PLAND <tpbpd@pland.gov.hk>
Sent: Wednesday, August 20, 2025 12:14 PM
To: tmylwdpo_pd/PLAND <tmylwdpo@pland.gov.hk>
Cc: Yuki Man Yin YIU/PLAND <ymyyiu@pland.gov.hk>
Subject: Fw: s.16 Planning Application No. A/TM/600 - Supplementary Information Submission

From: Maggie Wong <[redacted]>
Sent: Wednesday, August 20, 2025 10:48 AM
To: tpbpd/PLAND <tpbpd@pland.gov.hk>
Cc: Aiden Shing Pak CHU/PLAND <aspchu@pland.gov.hk>; Alan Wong <[redacted]>; Shawn Cheng <[redacted]>; ben wong <[redacted]>
Subject: Re: s.16 Planning Application No. A/TM/600 - Supplementary Information Submission

Secretariat
The Town Planning Board

Dear Sir/ Madam,

I am attaching the following information for our application no. A/TM/600 for your review.

- Updated Response to Environmental Protection Department's Comments
- Correspondence between Achelous and Fire Services Department About the Classification of Lithium Carbonate

Please kindly let us know if we also need to upload the two attachments in the following link:

[redacted]

Should you have any questions, please feel free to let us know.

Many thanks, Maggie

Response to EPD's Comments

Item No.	EPD's Comments (July 11, 2025)	Achelous' Response (July 16, 2025)	EPD's Further Comments (July 18, 2025)	Achelous' Response (Aug 19, 2025)
1.a	The applicant is requested to forefront provide the following information, and we will provide our further view on the application: a. Please clarify whether dangerous goods licence under Dangerous Goods Ordinance is required for the facilities.	We suppose our process does not require a "dangerous goods license". The process does not involve any listed DG during the process. Our recycled product is mainly lithium salt (lithium carbonate mainly, but not lithium metals that are classified as DG), according to the FSD "A Guide to Application for Dangerous Goods Licence and Approval" there is no material subject to the regulation of FSD under the local DG regulatory system.	As the Fire Services Department (FSD) is the regulatory authority for dangerous goods on land, FSD's view should be sought regarding the statement from the applicant that no dangerous goods are involved, particularly for the electrolyte and all the metal powders formed after shredding.	The electrolytes (Lithium hexafluorophosphate LiPF6) are decomposed by the heating inside an enclosed chamber. This is a common method have been adapted in the world. The decomposed residual fluorine is further removed with calcium oxide solution to form Ca2F stored in the enclosed vessels. Ca2F is a chemical waste but not a DG chemical according FSD regulation. Liaised with FSD (July 22 – August 6, 2025) regarding Lithium Carbonate classification. FSD confirmed on August 6 that it is not classified as dangerous goods (DG). Refer to Appendix 1 for email correspondence.
1.b	b. Please provide the details of the dangerous goods on-site including but not limited to the storage amount, temperature, pressure and the mitigation measures for mitigating the hazards.	No information as no DG on-site.	Please also provide details on the storage amount, temperature, and pressure of all chemicals by type, regardless of whether they are considered dangerous goods or exempted dangerous goods.	In general, the workshop target to collect around one ton of discharged retired lithium battery from licensed collector. Since all battery should be treated on the same day, no extra storage is planned. The chemicals used happened on the pH adjustment, proposing to

				use (H_2SO_4 and NaOH respectively) and the $NaCO_3$ for the participation of Lithium Carbonate. The daily usage should be around: H_2SO_4: 15%, 25L / day usage (DG exemption concentration below 49%) NaOH: 10kg / day (DG exemption for storge is 50Kg) NaCO3: 100kg/day (Food additive, not a DG chemical) Around 3 days storage will be required as general practice.
1.c	c. Please review the hazards of the dangerous goods by estimating their fire, explosion and toxic consequences. The information is needed for determining whether comprehensive Quantitative Risk Assessment (QRA) is necessary to demonstrate compliance with the Hong Kong Risk Guidelines.	No information as no DG on-site.	Please be reminded that depending on the chemicals processed and stored on-site, a quantitative risk assessment may be required to demonstrate compliance with the Hong Kong Risk Guidelines.	Noted.
	d. The applicant should supplement a process flow diagram of the proposed battery recycling operation for review. In particular, the applicant should clarify whether the operation would require heating and involves	Heating is required for shredded batteries with black mass for drying and evaporation of the volatile (i.e. electrolyte and solvent). The required working temperature should be around 100°C supported with an electrical heater only. Hence no boiler or furnace required. Please refer to the purple	Please confirm that there will be no toxic gas emissions, such as hydrogen fluoride, released during the process, especially during the distillation and recovery of electrolyte and solvent.	No toxic gas will be emitted as all the process are in closed system.

	installation of a boiler or furnace.	box in the revised process flow attached.		
	e. The applicant should also clarify whether any air pollutant emission or gaseous emission would be emitted from the proposed plant, and whether the proposed plant would involve installation of chimneys or ventilation exhaust. If yes, please provide the location of chimney or ventilation exhaust for review. Please note that if the proposed plant would involve installation of chimneys, the 200 m buffer distance requirement as specified in the HKPSG shall be fulfilled for no adverse air quality impact.	During the drying of blackmass stated above, evaporation may come out from the blackbass, but all will be conducted inside a closed chamber that evaporates and will be condensed and collected. Hence no air pollution will be produced and no chimney or ventilation exhaust required.	Please specify the chemical compositions of the black mass and electrolyte for further assessment. Please assess whether volatile chemicals could accumulate indoors and pose risk of fire or explosion, as no exhaust system will be provided, as stated in RtC item e.	Black mass is a mixture containing valuable metals like lithium, cobalt, nickel, and manganese, along with graphite. The blinder and electrolytes are decomposed during the vacuum heating process. The presence and % vary amount types of battery, hence the types of black mass. For example, the black mass abstract from the LCO type battery, the black mass mainly contain: Graphite (C) 20–35% Cobalt (Co) 5–20% Nickel (Ni) 5–15% Lithium (Li) 2–6% Copper (Cu) 3–10% Aluminum (Al) 1–5% Others (casing/electrolyte) <5%
2.	The applicant / operator is also required to comply with the requirements under relevant environmental pollution control ordinances (including Waste Disposal Ordinance (Cap. 354) ("WDO") and the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C), Air Pollution Control Ordinance (Cap. 311) (APCO), and Water Pollution Control Ordinance (Cap. 358) (WPCO)), and	We have already been in contact with Mr. LC Wong E(RW)14 of the Territory Control Group, and have kept a close update with their team on the license preparation.	Apart from volatile pollutants (evaporates) which will be collected from drying process, please clarify whether air pollutant such as heavy metals (nickel, cobalt, manganese, lithium), SO2, PM and etc. as well as odour would be emitted from the processes. And if yes, please clarify whether there is any air pollution control system	There is no other volatile or air pollutants comes out from the process. Even the shred materials are not fine enough to be classified as particulate matter. And most process is conducted in close system. Nevertheless, the requirements of the relevant environmental pollution control ordinance will be complied with, and the

	shall obtain the relevant licences. The applicant / operator is reminded to contact our Territory Control Group direct		(e.g. filter, scrubber, etc.) to control the emission.	relevant license will also be obtained before the operation of the facility.
3			Please provide the details of the mitigation measures for potential fire and explosion risk associated with the recycling process.	There is limited fire and explosion hazard as no flammable or explosive material involved in the process. But we will install fire extinguisher (both CO2 and chemical foam) in the premises, and the factory premises is also protected by appropriate fire sprinkler.

Gmail

Maggie Wong <[redacted]>

Concern about Dangerous Good License Requirement for Advanced Lithium-Ion Battery Resource Recovery Centre

Achelous Pure Metal <[redacted]> 22 July 2025 at 17:53
To: Hkfsd_dg_enq@hkfsd.gov.hk
Cc: Shawn Cheng <[redacted]>, Maggie Wong <[redacted]>

Dear Sir/ Madam,

We are now working with the Planning Department s.16 Planning Application (No. A/TM/600 - Proposed Industrial Use (Advanced Lithium-Ion Battery Resource Recovery Centre) at Unit 4, 16/F, Block B, Hang Wai Industrial Centre, 6 Kin Tai Street, Tuen Mun, New Territories.

We would like to seek clarification on whether a dangerous good license is required. We proposed the maximum daily recycling capacity is ONE ton, and to produce around 300kg Lithium Carbonate as major products.

The attached find the process flow to describe our recycling process (p.2). Please feel free to comment.

Should you have any questions, please feel free to contact me at [redacted], email: [redacted]

Best Regards,

Shawn Cheng

Co-founder & Technical Director

Achelous Pure Metals Company Limited

Concern about Dangerous Good License Requirement.pdf
342K

澤浩高純金屬
ACHELOUS PURE METAL

HKSTP PARTNER

Hong Kong Fire Services Department

Dangerous Goods Control Division

Dear Sir/ Madam,

Concern about Dangerous Good Licence Requirement for

Advanced Lithium-Ion Battery Resource Recovery Centre

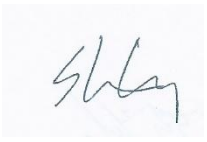
We are now working with the Planning Department s.16 Planning Application (No. A/TM/600 - Proposed Industrial Use (Advanced Lithium-Ion Battery Resource Recovery Centre) at Unit 4, 16/F, Block B, Hang Wai Industrial Centre, 6 Kin Tai Street, Tuen Mun, New Territories.

We would like to seek clarification on whether dangerous good license is required. We proposed the maximum daily recycling capacity is ONE ton, and to produce around 300kg Lithium Carbonate as major products.

The attached find the process flow to describe our recycling process. Please feel free to comment.

Should you have any questions, please feel free to contact me at [redacted], email: [redacted]

Best Regards,

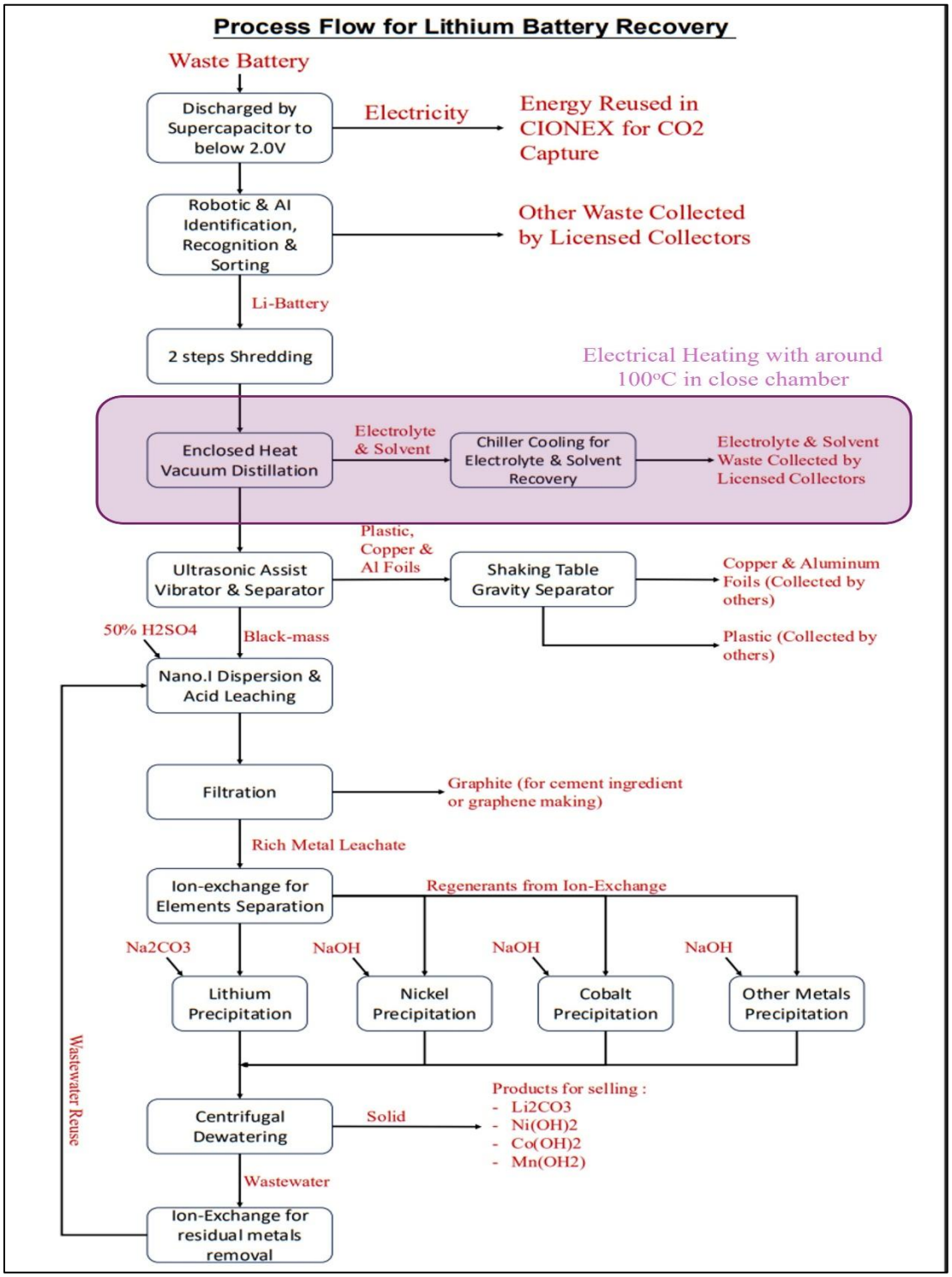


Shawn Cheng

Co-founder & Technical Director

Achelous Pure Metals Company Limited

Achelous Pure Metal Co., Ltd
[redacted]



Achelous Pure Metal Co., Ltd

[redacted]

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Re: Concern about Dangerous Good License Requirement for Advanced Lithium-Ion Battery Resource Recovery Centre

External Inbox ×

Summarise this email

Achelous Pure Metal 29 Jul 2025, 11:40

to Hkfsd_dg_enq, Shawn, me

Dear Mr. Lee,

Thanks for your call yesterday. As discussed, attached please find our Safety Data Sheet for Lithium Carbonate for your review. Should you have any questions, please feel free to contact me at [redacted]. We look forward to hearing your feedback soon.

Thanks,

Gmail **Maggie Wong <[redacted]>**

Fwd: Fw: Enquiry Received by ENQ DG on 29.7.2025 (DGC-25-JUL-033)

Achelous Pure Metal <[redacted]> 15 August 2025 at 11:22
To: Maggie Wong <[redacted]>

---------- Forwarded message ---------
寄件者： <dgc_enq@hkfsd.gov.hk>
Date: 2025年8月6日 週三 下午3:29
Subject: Fw: Enquiry Received by ENQ DG on 29.7.2025 (DGC-25-JUL-033)
To: <[redacted]>

Dear Sir/Madam,

Thank you for your emails dated 22.7.2025 and 29.7.2025 respectively in respect of the subject enquiry.

Based on the information provided, “Lithium Carbonate” is ***not*** classified as dangerous goods within the meaning of the Dangerous Goods (Application and Exemption) Regulations 2012.

Should you require further details, please contact Mr. LEE Man-hong at 2417 5762 of the Dangerous Goods Control Division. If necessary, you may also contact the undersigned at 2417 5717.

(SO Lap-chi)
for Director of Fire Services

From: "Achelous Pure Metal" <[redacted]>
To: Hkfsd_dg_enq@hkfsd.gov.hk
Cc: "Shawn Cheng" <[redacted]>, "Maggie Wong" <[redacted]>
Date: 29/07/2025 11:40
Subject: Re: Concern about Dangerous Good License Requirement for Advanced Lithium-Ion Battery Resource Recovery Centre

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Dear Mr. Lee,

Thanks for your call yesterday. As discussed, attached please find our Safety Data Sheet for Lithium Carbonate for your review. Should you have any questions, please feel free to contact me at [redacted]. We look forward to hearing your feedback soon.

Thanks,

Shawn

Achelous Pure Metal <[redacted]> 於 2025年7月22日 週二 下午5:53寫道：
Dear Sir/ Madam,