environment SOUTHLAND
REGIONAL COUNCIL
Te Taiao Tonga

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File Note

From: Ciaran Thayer – Compliance Technical Officer

Date: 16 December 2020

File Reference: AUTH-202196

Subject: ***New Zealand Aluminium Smelters – Landfill Inspection and Closure Plans***

16 December 2020

Meeting and audit of the New Zealand Aluminium Smelters Limited Landfill authorised by resource consent 202196 on 16 December 2020 arranged as part of the increased monitoring regime developed in response to the closure announcement.

0855 Meeting at Tiwai Point Aluminium Smelter with [redacted] (Team leader of Compliance Technical at ES), [redacted] (General Manager of Health Safety and Environment- NZAS) and [redacted] (Environmental Officer - NZAS).

[redacted] discussed with us the closure timeline and presented us some schedule summary details. Unless the situation changes the smelter will close at the end of the electricity supply contract (at this stage on 31 August 2021) and go in to a "make safe" phase which will take about 5 months. Following the make safe phase there will be a period of transitional inactivity while detailed plans for the future of the site will be made. This will include final site investigations as well as marketing the site for sale (approximately a year). Once the final land use and the state of the site's environmental legacy is determined a plan for decommission will be made. At this stage there is no final closure plan.

I explained that following enquiries MfE and the current central government negotiations Environment Southland has determined to undertake a higher level of consent compliance activities. This would include requests for other groundwater results and other reports. It would also include a greater number of site visits.

0930 Visited the landfill.

Inspected cleanfill pile and the metal recovery dross cell (currently being mined and processed by Inalco), and refractory bricks.

Inspected the general waste pile and the waste carbon pile (spent anode material that could not be reused).

Was shown the asbestos cells and manmade mineral fibre cell in the landfill.

Stopped and looked at the Haysoms dross pile. The capping looked to be intact. The Haysoms dross cell is covered by a geosynthetic textile layer to stop infiltration of rain water, but the base is not lined.

No waste prohibited by the consent appeared to be discharged to the landfill. At the time of the inspection.

GHD are doing a general characterisation project of the NZAS site as a whole, the project to characterise the landfill will be a separate project to be completed at a later time.

Large areas of the landfill were deposited historically - prior to the current consent. Where capping has been completed there is a large number of mature trees growing on the capping. Capping appears to be soil and pea gravel.

1057 Visited the "Cathode Pad". [redacted] explained, spent cell liner is produced as part of the process. It can be used as an additive to cement. Currently NZAS pays for this product to be used/disposed of by overseas plants. No spent cell liner is disposed of in New Zealand. Approximately 106kt is stored on the storage pad, while approximately 70kt is stored in storage sheds. The spent cell liner storage sheds have been recently assessed by engineers (last couple of weeks) and it has been determined to be structurally weakened. We were told that the bores that they monitor next to the shed cannot be monitored for a few months while structural strengthening is completed.

1125 Left Site.

Figure 1: From cleanfill pile looking towards Tiwai Point

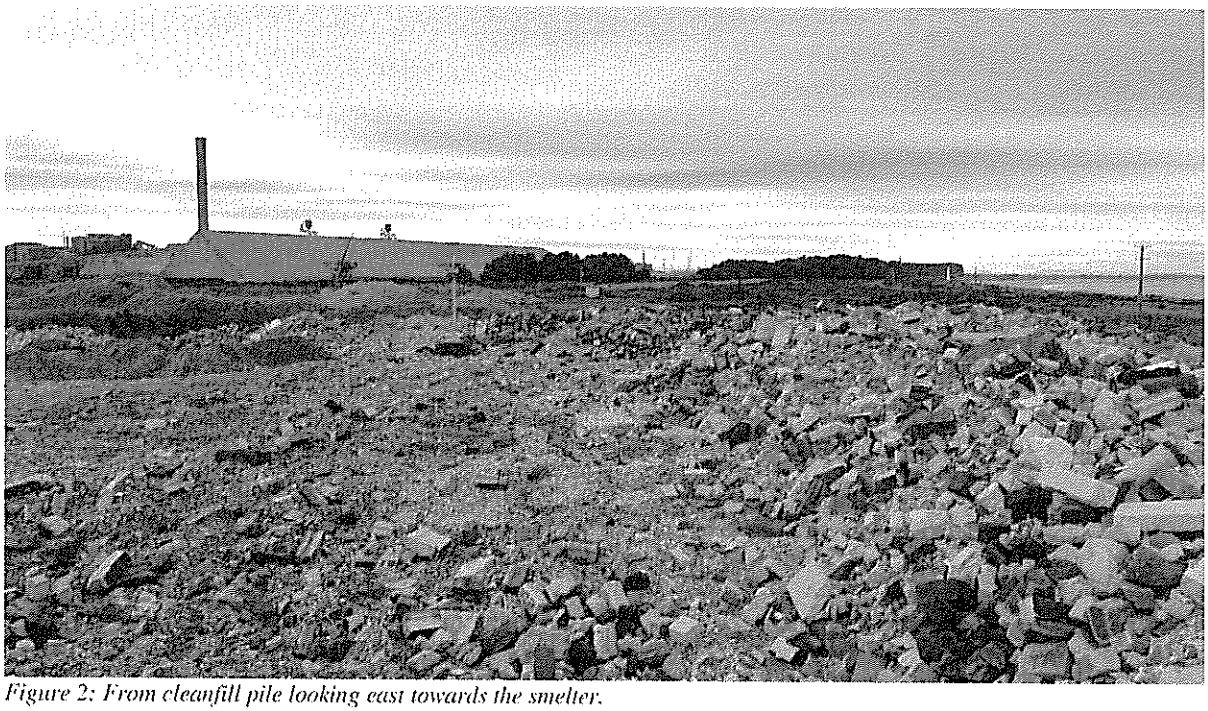

Figure 2: From cleanfill pile looking east towards the smelter.

Figure 3: General waste

Figure 4: Haysoms dross cell.

Figure 5: Cathode (SCL) Storage Pad with settling basin in the foreground, during a previous visit – 5 August 2020.

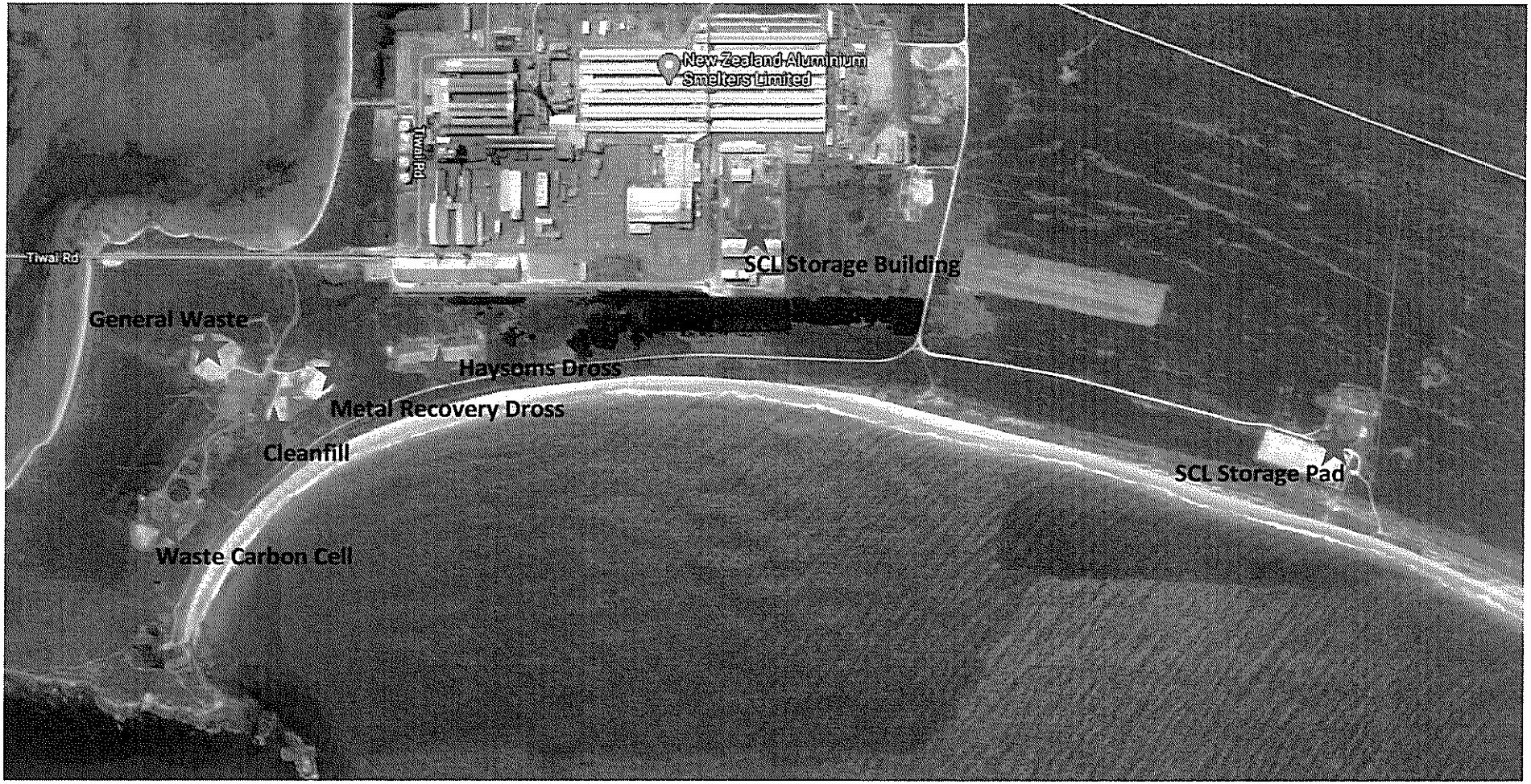

Figure 6: Google maps aerial view of Tiwai Point showing locations visited during the site visit