Weston Aluminium Pty Ltd

Normal Operation of Processing Plant

DOCUMENT REFERENCE: SOP-PP-002

PEOPLE WHO SHOULD BE AWARE OF THIS PROCEDURE:

All personnel responsible for the coordination and operation of the processing plant.

ISSUE DATE	DESCRIPTION	AUTHOR	APPROVED
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1. PURPOSE

The purpose of this procedure is to provide a practical guide to the operation of the processing plant including the crushing, bagging and storage of C-Ash and Nepheflux material. Documentation requirements are also described.

2. SCOPE

This procedure applies to all Weston Aluminium employees responsible for the operation of the processing plant or administration and coordination of Aluminox or Nepheflux products.

3. ASSOCIATED DOCUMENTATION

1. The following documents are referred to in this procedure:
SOP-PP-001 - Start-up of Processing Plant

2. The following documents are used in conjunction with this procedure:
PP Op sheet

4. PERSONAL PROTECTIVE EQUIPMENT (as required)

Safety Glasses
Hard Hat
Half-face respirator or Personal Filtered Air Supply System
Gloves
Hi-visibility clothing with Long Sleeves and Trousers

5. TOOLS & EQUIPMENT

Forklift
Bulka bags as allocated by Alternative Materials Manager
Permanent marker (Red or Black)
Snap lock sample bags

6. DEFINITIONS

Aldex / Aluminox - A by-product of the aluminium recycling process which has been developed as an additive to the foundry, cement, refractory and steel manufacturing industries. This material is collected from bag house systems and as size segregated dust in the Processing Plant.

Coarse – Coarse fraction (0.5-40 mm) Aldex / Aluminox product with an elevated aluminium content (typically 25 – 40 %), which is used in the foundry and steel manufacturing industries. This material is collected from the Processing Plant.

Mids Dust – Mids fraction (< 1.0 mm) dust screened by Rotex in dross pre-processing plant. This material typically has a medium aluminium content (20 - 25 %).

Fines Dust – Fine fraction (< 0.5 mm) dust screened by Rotex in dross pre-processing plant. This material typically has a low to medium aluminium content (5 – 20 %).

Baghouse Dust – Fine fraction (< 250 mm) dust collected in Baghouses 1, 2, 3, 4 and 7. This material is reported as having a <4% aluminium content.

SWL - Safe Working Load

Nepheflux - A product for the brick making industry made by the treatment of SPL waste.

7. CONTINUOUS PROCESSING PROCEDURE

Start Sequence

1. Select “Continuous Mimic/Status Page” on Home screen
2. “Select Continuous Process”
- wait for adjacent green light to indicate correct mode selected
3. Click on “Start/Stop Continuous Process”
4. Click “Start” in popup box
5. Click on “Start/Stop Plant”
6. Click “Start” in popup box
7. Pause plant when required to change bags
8. Pause will not turn off Grizzly/C1

Shutdown Sequence (at end of shift)

9. Click “Start/Stop Continuous Process”
10. Click “Stop” in popup box
11. Click “Continuous Process Complete”
12. Batch number will increment once procedure is repeated from 1

General Procedural Notes

One ‘batch’ number is assigned per shift during continuous processing
Only primary crusher is used with material constantly being fed from primary feeder
Product chutes are always set to dump onto C5
Only plant stoppage should be change bags under C5 or > 40 mm product bin (if required)
Record weights fed and bags changed in appropriate areas on back of op sheet for entire shift
Estimate the weight of any remaining bags when plant is shutdown for cleaning, and record in parentheses on back of the op sheet
Weigh off and empty > 40 mm bin when plant is shutdown for cleaning at end of shift
Primary feeder will go through material very quickly so you will need to load at least once per hour to keep it topped up
Extended cleaning takes place at the end of shift, with the main tasks involving cleaning the iBulk screen deck platforms, around the crusher and grizzly areas and sweeping the floor around the plant structure via broom to a point where the dust can be picked up by the mobile sweeper. The plant must be isolated at the CP15 main isolator before cleaning can take place inside the Grizzly cage or any guarding is removed to facilitate cleaning.
The Hornet should only to be used if a major spillage occurs such as belt failure or a blockage in the crushers and during end-of-shift cleaning to minimise the amount of manual handling that is required. Outside of these occasions it is not considered time efficient to use the Hornet.

13. BATCH PROCESSING PROCEDURE

1. Check that plant has been completely shutdown/ continuous process or previous batch has been ended
2. Ensure correct Rotex screen (if any) is in place
3. 500 µm for C-Ash and none for Nepheflux unless otherwise instructed
4. Select “Batch Mimic/Status Page” on Home screen
5. “Start Batch”
6. wait for adjacent green light to indicate correct mode selected
7. Click on “Start Plant”
8. Monitor Chutes page to ensure both chutes are directed at the same Bin
9. Pause plant when required to change bags
10. Pause will not turn off grizzly/C1
11. Once Primary Feeder is empty click “Infeed Complete” to begin secondary crushing after 90 s countdown
12. Check material is feeding correctly from either Bin A/B
13. After 2 legitimate passes (> 10 min each), got “Chute Control” page then select “Chutes 1 & 2 to Prod Bin” to empty out system
14. Once both Bin A and B are empty, select “Batch Complete” on status page and “Shutdown Plant” in popup box
15. Batch number will increment once procedure is repeated from 1

14. QUALITY CONTROL

1. For sale of product, the following quality standards must be met:

Material must be dry;

The maximum weight of each bulka bag is not to exceed its SWL;

Details recorded on the stencil are to be complete in full;

The neck of the bulka bag must be tied up;

No excessive dust on the surface and top of the bulka bag;

No tears/holes in the bulka bag (damaged bags are either to be rejected or shrink wrapped); and

No additional markings on the bulka bag

Rotex undersize bags labeled as 'Batch # - F' unless informed otherwise in diary

Rotex oversize bags labeled as 'Batch # - M' " " " " "

C5 bags labeled as 'Batch # - C' " " " " "

Bags are to be filled up to their SWL where volumetric capacity allows, this is currently 1250 kg for multi-trip bags and 1500 kg for single-trip bags.

2. The quality of bagged product is to be periodically inspected by the Alternative Materials Manager (or nominated person) for conformance with particle distribution standards.