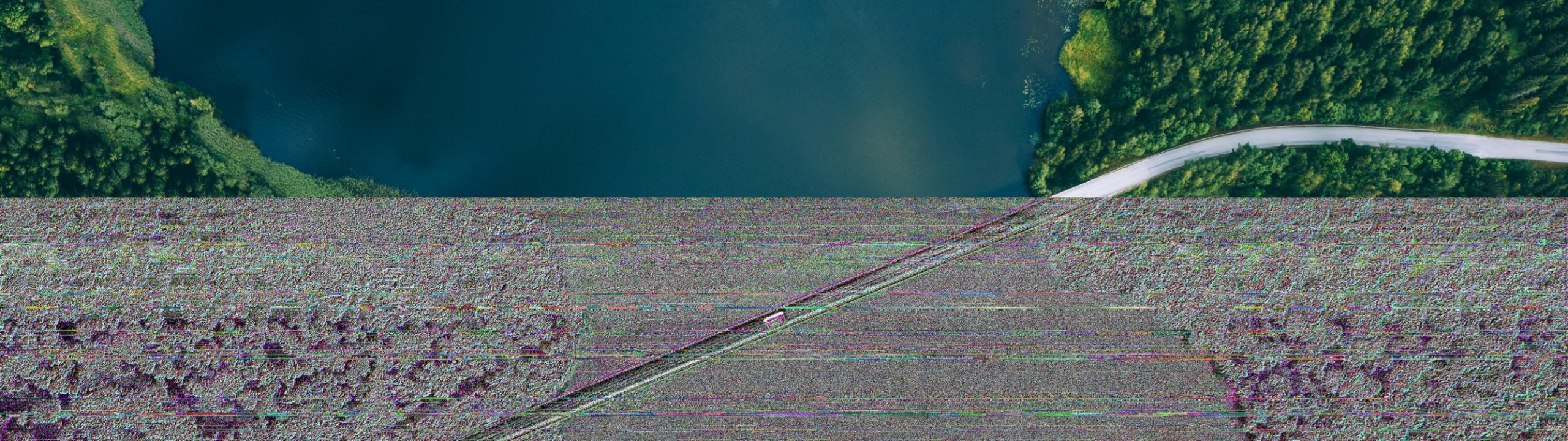




WASTE MANAGEMENT FOR A BETTER WORLD

AFR GUIDE 2025 (EN)

GEOCYCLE

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1. INTRODUCTION



Guide AFR

Objective

This AFR Guide (Alternative Fuels and Secondary Raw Materials) has been developed to provide a clear and easy-to-understand overview of the different types of waste that Geocycle Belgium and Holcim Belgium (Obourg) can accept and process.

For each type of waste, you can find:

- The most important parameters,
- The most common production processes,
- The origin of these waste stream.

The parameters mentioned in this AFR Guide do not replace those listed in the official Geocycle Belgium and Holcim Belgium (Obourg) schedule of conditions. In case of any questions regarding the characteristics of the waste, only the values indicated in these specifications are considered binding.

The most recent version of these specifications can be obtained from your Geocycle contact.

Guide AFR:

Target audience

This applies to everyone who comes into contact with waste streams that can potentially be treated within the Geocycle Belgium and Holcim Belgium network, with a focus on (new) outlet managers, production managers, purchasing departments, account managers, sales managers, and others.

Safety

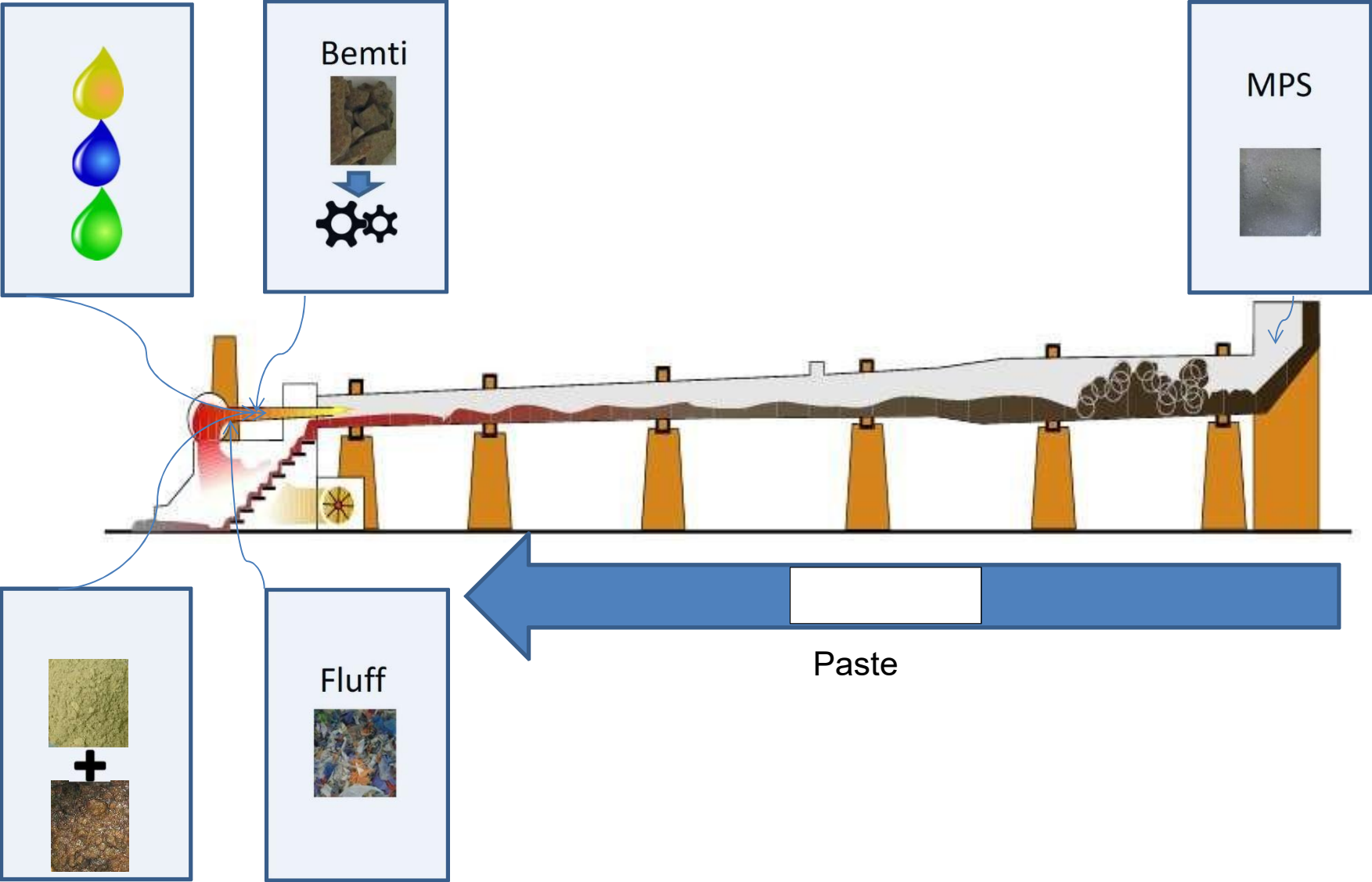
Safety is the number one priority for Geocycle and Holcim. That is why it is essential that everyone entering the Geocycle platform or the Holcim Obourg cement plant holds a valid certificate for our 'Safety1' training.

This training should be done in advance via the internet site: <https://safety.holcim.be/safetyholcim> .This one must be then validated by an authorized person.

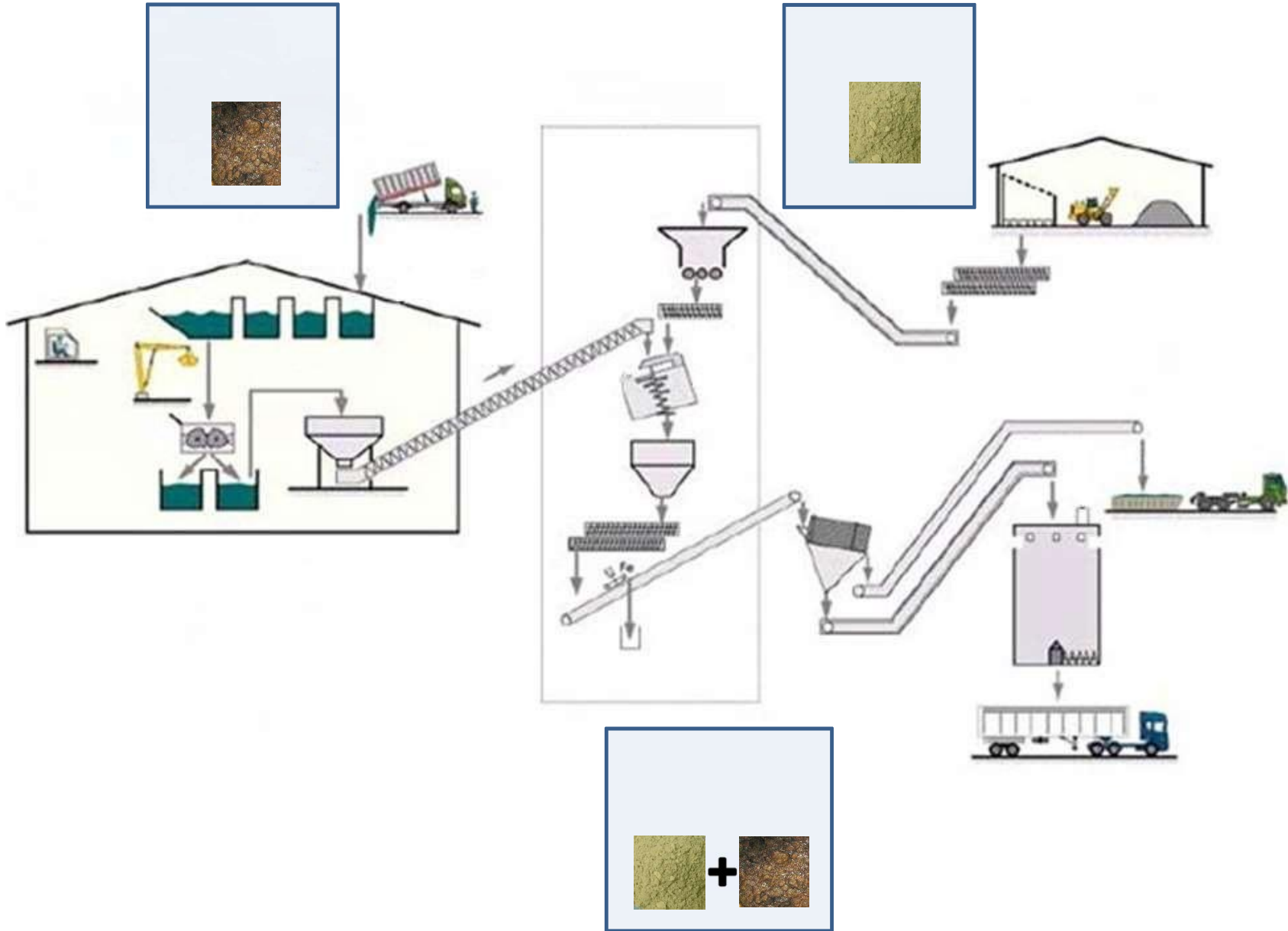
2. PROCESS



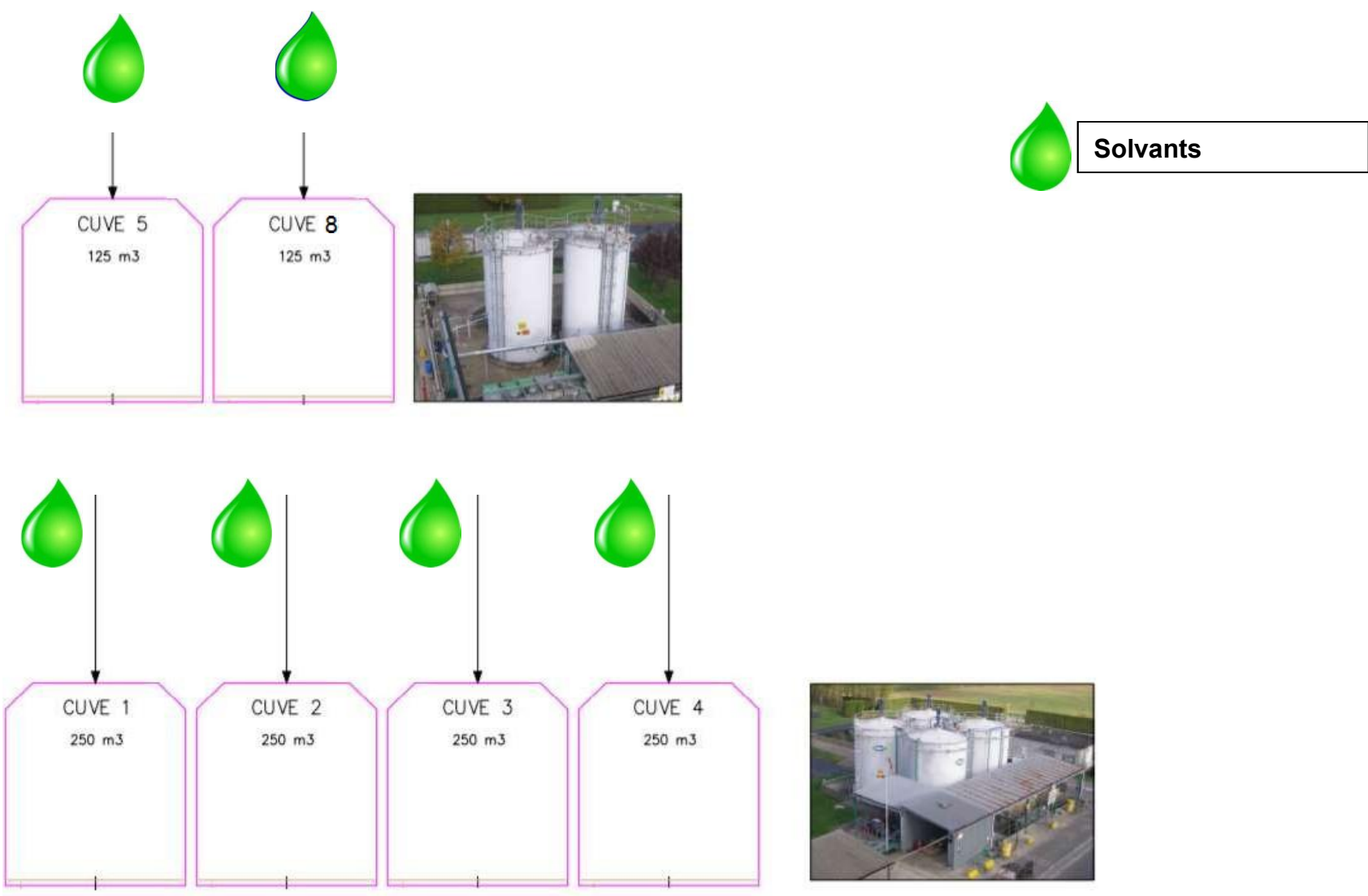
CEMENT KILN OVERVIEW



OVERVIEW SENEFFE PLANT- IMPREGNATED SAWDUST



OVERVIEW SENEFFE PLANT - LIQUIDS



3. LIQUIDS



GEOCYCLE SENEFFE PLANT

	Solvent	Tank bottoms, non-generable waste oil, residue of solvents, paint, liquid distillation products,...
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GEOCYCLE OBOURG PLANT

	Waste water	Process and cleaning waters
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HOLCIM OBOURG PLANT

	Bemti - Oil	Used oil ...
	Viscous solvent	Residue of solvents, paint and mineral oil with the following origin: Heavy hydrocarbons, cracking residue, residue from viscous distillation,...

SOLVENTS

Origin: Tank bottoms, non-generable waste oil, residue of solvents, paint, liquid distillation products,...

Properties	Requirements
Acrylonitrile	< 5%
Chlorine total	< 0,5%
pH	4-14
Flash point	>-10°C or vapour pressure < 55.000 Pa à 35°C
Temperature (Max delivery temperature)	35°C
H2O	< 40%
Viscosity	< 500 cps
Recovery codes	R12/R1
Unloading point	Geocycle Seneffe plant



WASTE WATER

Origin: Process -and cleaning waters

Properties	Requirements
Ash (1000°C)	< 10%
Materials in suspension	< 30% Absence of foreign bodies > 5 mm
pH	4-14
Flash point	> 50°C
Temperature (Max delivery temperature)	40°C
Viscosity	< 400 cps
Recovery codes	- If energy recovery (PCI > 5MJ/kg): R12 followed by R1 - If disposal (PCI < 5MJ/kg): D11 followed by D10
Unloading point	Geocycle Obourg plant



BEMTI – OIL

Origin : Used oil

Properties	Requirements
Flash point	> 60°C
H2O	< 5% - No clean water
Net Calorific Value	> 35 GJ/t
Recovery code	R1
Unloading point	Holcim Obourg



VISCOUS SOLVENT

Origin: Residue of solvents, Paint and mineral oil with the following origin: Heavy hydrocarbons, cracking residue, residue from viscous distillation,...

Properties	Requirements
Ash (1000°C)	< 10%
Materials in suspension	< 30%
pH	4-14
Flash point	> 55°C and higher than the delivery temperature
Net Calorific Value	> 25 MJ/kg
Ignition temperature	> 200°C
Temperature (Max delivery temperature)	90°C
H2O	< 5%
Viscosity	< 400 cps
Recovery code	R1
Unloading point	Holcim Obourg plant



4. SOLIDS



GEOCYCLE SENEFFE PLANT

	Pit material	Thick pasty sludge's: Oily waste or hydrocarbons, paint, ink, varnish or silicon waste. Sludge from material processing, waste which contains solvents,...
	Sawdust-absorbent	Wood dust and/or sawdust which is released during the reduction, treatment and sifting of (waste) wood. PU dust which is released during the recycling of refrigerators and the production of insulation materials.

HOLCIM OBOURG PLANT

	Bemti	Semi-solid non-hazardous and hazardous sludges, from water treatment installations,... (Filter cakes, centrifuge sludge)
	Fluff	SRF coming from the treatment of waste
	Alternative Raw Material (ARM)	Sludge's and powders containing Al-, Fe-, Si- and Ca oxides.

PIT MATERIAL

Origin: Thick pasty sludge's: Oily waste or hydrocarbons, paint, ink, varnish or silicon waste.
Sludge from material processing, waste that contains solvents,...

Properties	Requirements
Prohibited waste	Explosive waste, oxidising substances 1- H270, flammable substances Flam.Gas 1 H220 and Flam.Gas 2 H221, Release of an acute toxic gas
Odor	Must not have a nauseous odor
pH	4-12
Flash point	≥-10°C
Temperature	35°C
Recovery code	R12
Unloading point	Geocycle Seneffe plant



SAWDUST-ABSORBENT 0-10MM

Origin:

- Wood dust and/or sawdust which is released during the reduction, treatment and sifting of (waste) wood.
- PU dust which is released during the recycling of refrigerators and the production of insulation materials

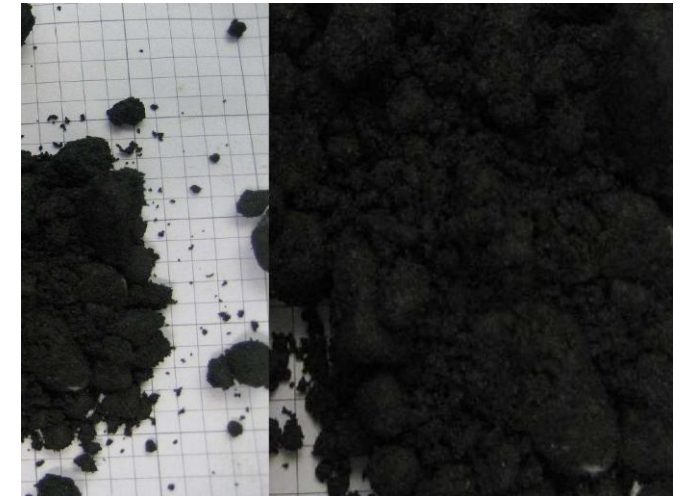
Properties	Requirements
Granulometry	- Fraction < 90 µm < 15% - Fraction < 0,5 mm > 35% - Fraction < 4 mm > 90% Fraction < 8 mm : 100%
Flash point	> 60°C
Recovery code	R12/R1/R5
Unloading point	Geocycle Seneffe plant



BEMTI

Origin: Semi-solid non-hazardous and hazardous sludges, from water treatment installations,... (Filter cakes, centrifuge sludge)

Properties	Requirements
Physical Property	- Semi-solid - Not powdery - Must not have a nauseous odor - Easily crushable - Must not contain objects - Absence of tarpaulin
Volatile organic compounds (200°C)	< 25% (weight on dried material)
Flash point	> 60°C
Recovery codes	- R12/R5/R1 - In the absence of energy recovery (dry NCV < 5 MJ/kg): R12 followed by R5
Unloading point	Holcim Obourg plant



FLUFF

Origin : SRF coming from the treatment of waste

Properties	Requirements
Fine particles (plastic films, sheets of paper,...)	> 100%
3D	< 0%
Ash (1000°C)	< 20%
Chlorine total	< 0,7%
Apparent density	< 0,65 t/m ³
Granulometry	- Fractions > 30 mm : max 3% - Fractions < 0,3 mm : max 2%
Net Calorific Value	> 15 MJ/kg
H2O	< 30%
Recovery codes	R1 and R5
Unloading point	Holcim Obourg plant



ALTERNATIVE RAW MATERIAL (ARM)

Origin: Sludge's and powders which contain Al-, Fe-, Si- and Ca -oxides

Properties	Requirements
Physical state	Semi solid
Granulometry	Not powdery - no pebbles
Net Calorific Value	< 3 MJ/kg
Rheology	May not disturb the viscosity of the paste
Recovery codes	- R4 if iron or aluminium based - R5 if silica or lime based
Unloading point	Holcim Obourg plant



5. PROCEDURE



PROCEDURE

Geocycle assesses the acceptability of waste streams using representative samples received (for the required quantity, see the table below) by comparing the sample composition with the legal and operational limits of Geocycle (Seneffe and Obourg) and/or Holcim Obourg.

The sample must be representative, as the hazardous characteristics (CLP classification) of the waste to be delivered should match those of the reference sample used to issue the Acceptance Certificate.



SAMPLE PACKAGING

Geocycle recommends using HD-PE sample containers of a suitable design (see below). Their size should comply with the table below.

Glass sample containers are prohibited.

Solvent	1 liter
Waste water	1 liter
Alternative raw materials (Alu, Fe, Si)	2 kg
Filter cakes for processing in Bemti dryer / grinder	2 kg
Impregnation supports (wooddust and PU)	2 kg
Impregnated wood dust	2 kg
Fluff/SRF	2 kg
Sludges / solid waste for processing in pits	2 kg
Activated carbon	2 kg

USE OF CONTAINERS

For solid waste, it is recommended to use HD-PE containers with a wide top opening, as shown in the pictures below:



For liquid waste, it is recommended to use sample containers that can be tightly sealed to prevent spills during transport:



INFORMATION TO BE MENTIONED ON THE SAMPLES

Before sending the sample, please contact your Geocycle contact to ensure there is interest in receiving it.

Without approval from your Geocycle contact, the sample will not be analyzed.

The following information must be indicated on the samples:

- Nature of the waste,
- Name and address of the producer and collector,
- Contact person details,
- Waste code, and hazard criteria.

Each sample must also be accompanied by our 'New Waste' sheet. Please feel free to request this sheet from your contact



CONTACT US

Want to know more?

Our team will be happy to assist you:

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