

Beshada, Eshetu (CWS)

From: Kevin Rogers [mailto:Kevin.Rogers@armtec.com]
Sent: May-20-16 3:45 PM
To: Beshada, Eshetu (CWS)
Cc: Hodgson, Kyle; Peter Schuster
Subject: RE: Armtec Precast Concrete - Environment Act Proposal

Eshetu,

Please see below the information needed to move the EAP forward. The exception is a copy of the Land Title which we were not able to find, both at the site and through our corporate colleagues.

#1 -a Regarding point #1, the volume of the additives used annually varies depending on the products being made. 2015 volumes were used as an estimate additive volume used.

MATERIAL USAGE TOTAL

From: Jan 01,2015 00:00, To: Dec 31,2015 23:59

Mat#	Material_Name	Actual
01	Sand	15170552 Kg
05	14mm stone	20070617 Kg
01	Type 10 (cement)	4112579 Kg
02	S.R.# 1 (cement)	3360243 Kg
03	silica	120411 Kg
04	flyash	1232208 Kg
01	Glenium 7700 (water control)	35477970 ml
02	VMA (viscosity modifier)	25770 ml
03	Rheobuild 1000 (water control)	3032600 ml
04	NC 534	793924 ml
05	Micro Air (surfactant)	4268495 ml
06	C.N.I. (corrosion control)	11327990 ml
07	Navitas 33 (lubricant)	7893510 ml

Batch Plant – Water Usage

02	Prewet	1277335 L
05	Water	587365 L
07	Trim Water	15764 L
07	Water Trim	227 L
15	Ice in batch	48595 Kg

#1-b Storage capacities/ normal on site

Flyash	30,000 Kg storage capacity with 80% (24,000 kg normally)
Silica available – 1-2000 kg	16,000 kg storage capacity with 50% (8,000 kg normally), we also have bags
Cement (2 types)	140,000 kg storage capacity
C.N.I.	6000 kg storage capacity

Navitas 33	2000 kg storage capacity
VMA 80% - 960 kg	1200 L tank (approx. 1200 kg) - managed based on projects being used – assume
Micro Air - 800 kg	1000 L tank (approx. 1000 kg) managed based on projects being used – assume 80%
Glenium 7700 3200 kg	4000 L tank (usually kept full) managed based on projects being used – assume 80% -
Rheobuild 1000 2400 kg	3000 L tank (approx. 3000 kg) managed based on projects being used – assume 80% -
NC534 - 3400 kg	3000 L tank (approx. 4200 kg) managed based on projects being used – assume 80%

#1 – c Mitigating measures / Air release

The silos are equipped with high level sensors and alarms (audible and visual). The audible alarm is able to be heard by the unloader and the staff in the batch plant stop the unloading process. The silos in the batch plant are also equipped with a bag house (filtration) which minimizes particulates as they are filtered during the unloading process.

#2 The beam wash area has no pre-treatment per se. The pathway allows for particles to deposit in a sump pit and a U-drain, acting like a clarifier. The clear water is then passes over a gravel bed.

#3 Please see the attached floor plan. The floor plan of the plant varies tremendously as with the products that are being made. However, structural items such as bridge girders and beams are generally made on the west side of the plant near the batch plant, and architectural items such as wall panels, and gutters are generally made on the east side of the plant.

#4 The boiler is a 300 HP Cleaver Brooks firetube boiler. It is fueled with natural gas. The boiler is used 12 months a year as a process input and during the winter months to supply building heat.

As an aside, I will be leaving Armtec at the end of this month and future contact should be made through Peter Schuster. I've copied him on the email as well as the corporate head of the environmental items, Mr. Dan Lyons.

Take care,

Kevin Rogers