BFK TECHNOLOGIES INC. Tel: 920-894-1113 email: sales@bfktech.com

Precast Concrete Reclaimer & Environmental Application Data

Please provide answers to the questions below. Your answers will help us determine the best model to use.

Contact:_____ **Company:**_____

Plant Address:_____

email:_____ **Tel:**_____ **Fax:**_____

Part 1

*In Part 1, we are looking to define **how much waste concrete** needs to be handled, and **how quickly** it needs to be washed thru the equipment.*

For example, if you wash out 1 yard per day, it is different if you have 6 to 8 washouts of 3-5 cubic feet each, every 2-3 hours, then if you need to wash 1 full yard at once.

It is also different if you need to washout 1 yard at once (end of day, for example) from 1 mud bucket or ready-mix truck, versus 1-yard total from multiple buckets or vehicles.

For each answer, list current and anticipated future amounts, if applicable.

a. How much total waste concrete is washed out per day? *Maximum worst-case day*

NOW: FUTURE:

b. How many wash-outs per day?

NOW: FUTURE:

c. How often do wash-outs occur?

NOW: FUTURE:

d. Approx. time between wash-outs?

NOW: FUTURE:

e. Largest amount *at one time*?

NOW: FUTURE:

f. Describe in more detail, if needed: *(add separate page if needed)*

Part 2

In Part 2 we are looking to define your existing equipment and facility. We want to know how you currently handle your washout and left-over concrete, and what reclaimer experience you have already had, if any.

a. Please circle the item(s) that best describe how you handle your washout and waste concrete.

[Circle ALL that apply]

1. We are currently operating a Reclaimer.
2. We had a reclaimer, but it is no longer in service.
3. We washout into a settling pond or bunker.
4. We pour blocks or other forms.
5. We discharge onto the ground (windrow), let the concrete harden, and then crush the material (or haul it away to a crushing site).
6. Other (define/describe): *(add separate page if needed)*

Part 2 continued

If you circled number 1 or 2 above, please answer questions 2b through 2d. Otherwise, please skip to question 2e below.

b. Please describe your Reclaimer: [*manufacturer, make and model if known. Otherwise, type: i.e. auger/screw, paddle wheel, bucket wheel, drag chain, etc.*]

c. How many years is/was the reclaimer in operation: _____

d. We were generally **satisfied** **unsatisfied** with this reclaimer. *Please circle one*
Please explain:

Skip to this point if you have never used a reclaimer at this location.

e. How do you currently move your concrete? Specifically, what type(s) of equipment need to be washed out into the reclaimer? *Mud buckets, Ready Mix Trucks, Placement Vehicles (aka "Tuckers®"), etc.*

f. Do you have any existing settling ponds or washout pits? *Please attach dimensioned sketch or drawing.*

g. After you washout, where do the solids go?
Rock/Coarse Agg:

Sand/Fine Agg:

Cement:

h. Where does the water go?

Part 3

In Part 3 we are looking to define the solids materials used in your mix design(s). By defining the materials and particle sizes, we are better able to determine the appropriate screen size, as well as ensure the slurry handling system will function properly.

Please list the approx. % of total mix for each material. For aggregates and fibers, please list particle size.
***NOTE:** a sieve analysis of aggregate sizes can be attached as an alternative.*
Please leave blank any material not used.

MATERIAL	% OF TOTAL MIX	PARTICLE SIZE	
Coarse Aggregate		MAX	MIN
Fine Aggregate		MAX	MIN
Fiber		DIA. x LENGTH	
Cement		☐	*Please check here if fibers are metal*
Fly Ash		☐	We also use: *(check all)*
Silica Fume		☐	Color pigments
Pozzolan		☐	Air Entrainment
Other:		☐	*Other:*

Part 4

In Part 4 we are trying to determine how you plan on separating the cement from the slurry discharge, and other water issues.

In most installations, cement is separated from the water and disposed of. We'd like to find out how you want to accomplish that. The water is then recirculated back to the reclamation equipment and used to wash more incoming waste concrete. Some users wish to use excess water back at the plant. Please check any/all of the following that you have interest in using:

☐Settling Ponds

Settling ponds are the most common method. They must be long enough to allow sufficient settling time to get the cement to fall out of the slurry/water stream. You also need to be able to clean the settled solids out (front-end loader, skid-steerer or hoe). They should be deep enough to allow some stockpiling to minimize the frequency of clean-outs. **Flocculants** (discussed below) help to settle solids more quickly, thereby allowing smaller or fewer ponds.

☐Flocculants and Flocc Feeders

Flocculants can provide benefits to a multitude of separation methods. If used with settling ponds, generally the ponds can be made shorter, or you won't need as many, as the flocculants will settle the cement out much more quickly than gravity alone.

Flocculants will also pull solid **color pigments** out of the slurry stream. Additionally, many of the heavy metals will be encapsulated in the flocc particles, thereby removing them from the water. Other benefits to Flocculants include larger particle sizes of waste cement (will pass a Paint Filter test, important for landfill disposal) and dryer material, typically allowing the user to stockpile the waste cement in a bunker without the fear of it "mucking up" again when it gets wet.

Flocculants actually scrub the pump and plumbing clean of built-up cement, minimizing plugging and repairs, and can also aid devices such as filter presses, by making them more efficient.

☐Mechanical Separation

Our Model S3 Slurry Separation Stand, in conjunction with the AFD flocculant dispenser, pumps flocked cement slurry up to a tank, where the cement settles out. Clean water is delivered back to the reclaimer, while the settled solids are collected in a dewatering bag for disposal.

☐pH Adjustment

pH adjustment systems using readily available CO_2, to lower pH to acceptable levels for release (where allowed), for use in future batches, or for use as yard water (stockpile cooling or dust suppression).

☐Other:

Other technologies, such as filter presses, or
Define: _____

Please list or explain any other issues, concerns or requirements you may have:

_____

_____

_____

_____

_____

_____

Please answer as completely as possible, and return to us.

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