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# *RUSSTECHNICAL NOTES*

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## **RUSSTECH RENU (Hydration Stabilizer)**

### *Instructions for Stabilizing Concrete Wash Water Pits*

#### **OVERVIEW:**

**RUSSTECH RENU** is a ready-to-use liquid solution manufactured to control the hydration process in returned concrete wash water hereafter referred to as gray water. This advanced set retarder coats the hydrating cement particles in the gray water, resulting in the suspension of the hydration chemical reaction. Gray water, when recycled as batch water, can cause the concrete to perform substandard to its intended application. **RUSSTECH RENU** can be used to offset these adverse factors and produce acceptable concrete using recycled gray water as batch water from concrete wash water pits.



#### **OVERNIGHT STABILIZATION INSTRUCTIONS:**

Follow these instructions carefully:

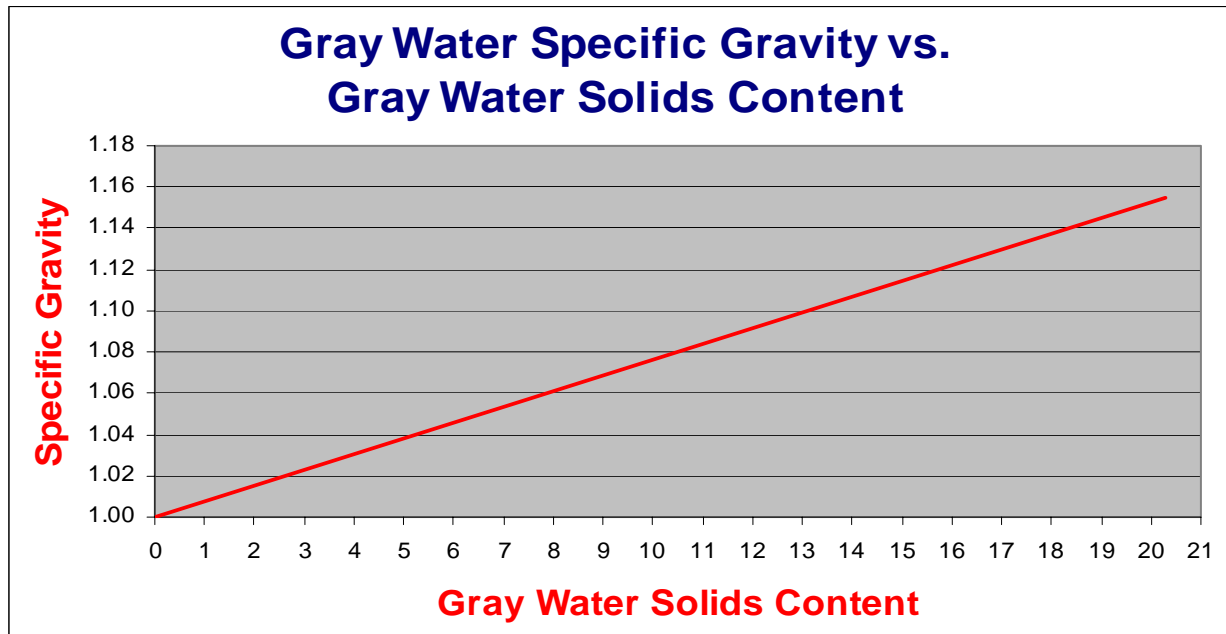
1. Wash water pits should be equipped with recirculation mixers that keep solids suspended in the pit.
2. Pits should be maintained at the lowest feasible levels in order to minimize aged cement and maximize storage for gray water.
3. Gray water from the pit should be sampled daily and the specific gravity determined.
4. Determine the correct **RUSSTECH RENU** dosage based on the dosage equation using the specific gravity, solids content, and volume of gray water in the pit. A spreadsheet program is available from RussTech to calculate these recommended dosages.
5. **RUSSTECH RENU** should be added to wash water pits at the end of each day that concrete gray water is placed in the pit.
6. A quality control daily log should be kept with records of gray water specific gravities, solids, and volumes of gray water with the **RUSSTECH RENU** dosages added.

## ADDITIONAL STABILIZATION INSTRUCTIONS:

In order to stabilize wash water in pits for additional days during plant closures, **RUSSTECH RENU** dosage should be increased by one half the calculated dosage for each additional day. Example: If 400 ounces were calculated for overnight stabilization, an additional 200 ounces would be added *for each additional day*.

## SPECIFIC GRAVITY vs. SOLIDS CONTENT GRAPH:

The following graph shows the relationship between gray water specific gravity and gray water solids content that has been satisfactorily stabilized. **RUSSTECH RENU** dosages are calculated by using the gray water specific gravity and gray water solids content multiplied by the volume in the pit:



## WASH WATER PIT DOSAGE EQUATION:

Wash Water Pit Volume (gallons)  $\times$  gray water specific gravity  $\times$  gray water percent solids  $\times$  8.34  $\times$  0.16 (ozs. /cwt.)

Example: 20,000 gallons gray water at 1.02 specific gravity:

20,000 gallons  $\times$  1.02 (S.G.)  $\times$  3.0 (% solids)  $\times$  8.34  $\times$  0.16 (ozs. /cwt.) = 816 ounces of **RUSSTECH RENU**

Contact your local **RUSSTECH** technical service representative for a spreadsheet program to simplify dosage calculation and for assistance when incorporating this product to stabilize concrete wash water pits.



**RussTech Inc.**

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