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Annual Report

For the period of 2013

Granite Construction Company - Cottonwood Facility
Facility Name

1000 North Warm Springs Road, SLC, UT 84116
Facility Street Address City Zip

Project Status

On a separate sheet, summarize:

- your Clean Utah project commitments and accomplishments made to date,
- major indicators of environmental improvements (measurable ways that you are determining the environment is improving as the result of steps you are taking),
- public participation activities you have undertaken, and
- your project plans for next year, as they relate to this program.

Certification Statement

(to be signed by the senior facility manager)

I certify that the information outlined in the attached annual report is correct and that this facility continues to meet all program criteria and has an active EMS, as defined by the Clean Utah program. I further certify that this facility has conducted periodic assessments of compliance with legal requirements, has corrected all identified instances of noncompliance, and is currently in compliance with all applicable federal, state, and local environmental rules and regulations.

Signed

1-30-14

Date

Tom Walborn

Print Name

Env. Manager

Title



Granite Construction Company

2013 Environmental Improvement Project Results

Improvement Project #1: Cottonwood Wash Plant Facility – Operation of Belt Press and Dewatering Screen

Targeted Reduction Goals: Baseline comparison year is 2007

- 25% reduction in wash plant water use
- 10% reduction in mobile equipment hours (including corresponding air pollutant emissions) at the facility.

Water Usage Measurement Results - 2013

	Baseline (2007)	Year 4 (2013)	Delta (%)	Goal (%)
Wash Plant Water Usage Total	12,717,632 gal	6,412,630* gal	- 50%	NA
Wash Plant Production	463,057 tons	169,112 tons	- 64%	NA
Gallons Used Per Tons Produced	27.5 gallons/ton	37.90 gallons/ton	+ 27%	- 25%

* Assumes a 25% water loss in recirculating the water recovered and reused (3,390,820 total gallons) from belt press and dewatering screen.

Water Usage Performance Discussion

For the 2013 evaluation period we continue to demonstrate significant reductions in utility-provided water use associated with our washed aggregate processing. For the 2013 period, the performance success resulted in an actual increase of 27% for the period on a per ton basis for washed product; however, approximately 3.4 million gallons were recovered and reused for the production period. Several factors influenced these results including the cleanliness of the aggregates (processed material had a higher quantity of fines) and the extremely dry conditions experienced during the summer months of 2013.

Based on the recovery and reuse of the reclaimed water, the economic benefit from water recovery and reuse at the facility for the 2013 period resulted in an approximate cost savings of \$9,718.

Mobile Equipment Hours and Pollutant Emissions Results

	Baseline (2007)	Year #4 (2013)	Delta (%)	Goal (%)
Wash Plant Equipment Hours	1,968	770	- 39%	NA
Emissions				
CO	0.81 tons/year	0.33 tons/year	- 39%	- 10%
NOX	2.21 tons/year	0.90 tons/year	- 39%	- 10%
PM10	0.16 tons/year	0.07 tons/year	- 39%	- 10%
PM2.5 (30% of PM10)	0.05 tons/year	0.02 tons/year	- 39%	- 10%
SOX	0.24 tons/year	0.01 tons/year	- 39%	- 10%
VOCs	0.15 tons/year	0.06 tons/year	- 39%	- 10%

Pollutant Emissions Reduction Performance Discussion

The addition of the belt press and the wash screen continues to produce a significant reduction in the equipment hours required to manage the aggregate washing process and the associated slurry waste by-product. Equipment hours associated with wash water and waste management are typically not as dependent on production volumes and were therefore not normalized. For 2013, equipment hours and demand decreased by 39% which resulted in an economic benefit (equipment use and fuel savings) estimated at \$18,000 for the period.

Improvement Project #2 (New Project): Cottonwood Aggregate Plant Electric Utility Conversion – Diesel Fuel and Air Pollutant Reductions

Targeted Reduction Goals: Baseline comparison year is 2012

- Track estimated diesel fuel consumption reduction
- Track estimated air pollutant reduction
- Quantification of economic benefit

Beginning in 2013, the Cottonwood Aggregate facility was improved by conversion to electrical power to the local electrical utility. This infrastructure improvement allowed for the permanent removal of 2 diesel-powered electrical generators that were historically used to supply power to the aggregate operations at the facility. All of the reported performance indicators were normalized, using 2012 production/consumption information.

Total estimated diesel fuel savings (gallons not consumed) = 169,000 gallons

Total estimated cost savings (based on sliding scale amortized fuel cost) = \$307,000

Total estimated electrical utility cost (including infrastructure improvement) for 2013 = \$205,000

Net economic cost savings for 2013 (estimated) = \$102,000

The environmental benefits for the improvement project resulted in a significant reduction of air pollutants through the permanent removal of two diesel fired generators. The air pollutant reductions estimated for 2013 are as follows:

- **CO reduced by 6.83 tons**
- **NOX reduced by 18.64 tons**
- **PM10 reduced by 0.03 tons**
- **PM2.5 reduced by 0.02 tons**
- **SOX reduced by 0.05 tons**
- **VOCs reduced by 0.87 tons**

Public Participation Activities

We continue to engage the public and our neighbors at all of our materials facilities to educate them regarding process improvements and new technologies we have implemented to improve our business and environmental performance.

Community outreach continues to be an important part of our business plan and philosophy as a company and community partner. During 2013 we continued our efforts to sponsor and support numerous community events and charitable organizations. During 2013, Granite opened a new asphalt plant in Utah County. As part of our opening, Granite hosted an open house and invited our neighbors and community leaders to visit the new facility to provide tours and to introduce our company, our people and to provide information specific to the

operations and process at the facility, and most importantly to extend our commitment to our neighbors and local communities where we live and work.

We are committed to continuing our public participation and community involvement efforts for 2014 and beyond.

Clean Utah Project Plans for 2014

The Clean Utah Project Plans for 2014 include:

- 1) (Existing Project) Continue to track and report water conservation and air pollutant emissions reductions for the belt press and dewatering screen at the Cottonwood Aggregate Facility.
- 2) (Existing Project) Cottonwood Aggregate Facility Electric Utility Conversion. This improvement project will track air pollutant emissions reduction, diesel fuel use reductions and economic benefits.
- 3) (New Project) Compressed Natural Gas Vehicles. Utah has been approved to add Compressed Natural Gas availability to our company pickup fleet vehicles. Two CNG pickups have been approved for 2014. During this initial year we plan to track and evaluate cost, fuel conservation, environmental benefits (air pollutant reductions) and energy cost savings to transition our Utah Fleet toward lower emission vehicles.