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Utah Department of Environmental Quality
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1-800-458-0145

Annual Report

For the period of 2014

GRANITE CONSTRUCTION COMPANY

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.

Tom Wall

Signed

Jan. 29, 2015

Date

TOM WALBURN

Print Name

ENV. MANAGER

Title



Granite Construction Company

2014 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 5 (2014)	Delta (%)	Goal (%)
Wash Plant Water Usage Total	12,717,632 gal	5,157,057* gal	- 60%	NA
Wash Plant Production	463,057 tons	266,074 tons	- 53%	NA
Gallons Used Per Tons Produced	27.5 gallons/ton	19.38 gallons/ton	- 30%	- 25%

* Assumes a 25% water loss in recirculating the water recovered and reused (4,631,203 total gallons) from belt press and dewatering screen.

Water Usage Performance Discussion

For the 2014 evaluation period we continue to demonstrate significant reductions in utility-provided water use associated with our washed aggregate processing. For the 2014 period, accounting for the recycle and reuse of approximately 4.6 million gallons of process wash water, the performance success resulted in a decreased use of 30% of utility-provided water for the period on a per ton basis for washed product.

Based on the recovery and reuse of the reclaimed water, the economic benefit from water recovery and reuse at the facility for the 2014 period resulted in an approximate cost savings of \$11,000.

Mobile Equipment Hours and Pollutant Emissions Results

	Baseline (2007)	Year #5 (2014)	Delta (%)	Goal (%)
Wash Plant Equipment Hours	1,968	1,211	- 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 2014, equipment hours and demand decreased by 39% which resulted in an economic benefit (equipment use and fuel savings) estimated at \$16,500 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) = 197,000 gallons

Total estimated cost savings = \$593,000

Total estimated electrical utility cost (including infrastructure improvement) for 2014 = \$566,000

Net economic cost savings for 2014 (estimated) = \$27,000

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 2014 are as follows:

- **CO reduced by 5.93 tons**
- **NOX reduced by 23.42 tons**
- **PM10 reduced by 0.04 tons**
- **PM2.5 reduced by 0.02 tons**
- **SOX reduced by 0.04 tons**
- **VOCs reduced by 0.76 tons**

Improvement Project #3 (New Project): Compressed Natural Gas (CNG) Vehicles – Air Pollutant Reductions and Energy Cost Savings

Granite anticipated having two CNG vehicles approved and purchased in 2014; however, this project was delayed. As of December 2014, we received these vehicles and will implement this environmental improvement project for 2015.

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 2014 we continued our efforts to sponsor and support numerous community events and charitable organizations. New for 2014, Granite became a corporate sponsor for the Conservation Garden Park, located in West Jordan, UT. The Conservation Garden Park's mission is to promote individual, community and environmental well-being by embracing wise stewardship and conservation of water resources. Granite has two employees who participate as advisory council members of the Conservation Garden Park organization.

We are committed to continuing our public participation and community involvement efforts for 2015 and beyond.

Clean Utah Project Plans for 2015

The Clean Utah Project Plans for 2015 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 added two Compressed Natural Gas availability to our company pickup fleet vehicles, as of December 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.