



**FOR IMMEDIATE RELEASE:**  
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## **Granite Construction Introduces Model Clean-Air Truck Program Advancing Efforts to Reduce Diesel Emissions in Southwest Riverside County**

New, cleaner trucks for onsite equipment and California Air Resources Board (CARB)-verified clean air filters for highway trucks serving the proposed Liberty Quarry would reduce mobile source air quality impacts from the proposed project.

**MURRIETA, CA** — Granite Construction Company today announced a new clean-air truck program developed in cooperation with South Coast Air Quality Management District (AQMD) that would substantially reduce regional air quality impacts resulting from the proposed Liberty Quarry project in Southwest Riverside County.

The Liberty Quarry Clean-Air Truck Program is designed to reduce emissions from the heavy-duty trucks involved in transporting aggregate in the region. In spite of the fact that only thirteen trucks will be needed during the first year of operations, Granite has agreed to replace and/or retrofit ten times that many trucks, resulting in emissions reductions for over 13 million truck miles.

The accelerated mitigation results in significant reductions in particulate matter (PM10) and nitrogen oxide (NOx) emissions from the project, two key pollutants that must be significantly reduced in order for the region to meet federal health-based air quality standards. Granite will work with CARB and South Coast Air Quality Management District to determine the best technology available to retrofit truck engines before the project opens. As a result of the Granite program, individual truck emissions will be reduced 85% – 90% for particulate matter and, depending on the technology, an estimated 40% for NOx, according to Kleinfelder, air quality consultants for the project.

“Granite should be applauded for their leadership,” said San Bernardino County Supervisor and AQMD board member Gary Ovitt, “Their model for a clean-air truck program at Liberty Quarry is exactly the type of proactive action that companies should be emulating to help reduce local and regional air emissions and is a model for where we should be going.”

The clean-air truck program is unique and significant for the local area because it accelerates an aggressive reduction of diesel particulate emissions in advance of CARB regulations. The local area won't have to wait to receive the full benefit of improvements to local air – improvements that would otherwise not be realized until some time into the future when the project reaches its full capacity and depending on when the future CARB regulation becomes effective.

“Granite Construction has a proud history of leadership when it comes to supporting new technology for environmental improvement,” Granite Chairman Bill Dorey stated. “In the case of Liberty Quarry we have the opportunity to incorporate new technology on day one of the project in order to accelerate clean air efforts in the region. We believe it is the right thing to do.”

The AQMD was instrumental in the development of the innovative clean-air truck program.

“We appreciate the ongoing cooperation and collaboration of AQMD and CARB staff in the creation of this program as well as their pledge to assist with the necessary technology to insure its implementation and monitoring,” stated Gary Johnson, Liberty Quarry Project Manager.

Advancing new engines and clean air retrofits to the project's on-road truck fleet on day one exceeds current or contemplated regulatory requirements for the project or the industry overall. The California Air Resources Board is considering new regulatory requirements for fleet replacement that would require California truck owners to replace or upgrade older, dirtier diesel engines over time. But the accelerated Granite program commits the company to the accelerated air quality improvements from the first day the project opens.

“This program is yet another local benefit provided by Liberty Quarry and demonstrates the positive regional impact of a local aggregate source. It further addresses any health concerns related to air quality”, said O. B. Johnson, chairman of the Friends of Liberty, a local organization supporting the quarry.

*Granite Construction Incorporated is a member of the S&P Midcap Index, the Domini 400 Social Index and the Russell 2000. Granite Construction Company, a wholly owned subsidiary, is one of the nation's largest diversified heavy civil contractors and construction materials producers. Granite Construction Company serves public and private sector clients through its offices nationwide. For more information about Granite, please visit their website at [www.graniteconstruction.com](http://www.graniteconstruction.com).*

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## Liberty Quarry Air Quality Benefits

	<b>NO<sub>x</sub></b>	<b>PM<sub>10</sub></b>
<b>Liberty Quarry</b>	56 tons/year removed	21 tons/year removed
<b>AQMD Pilot Program</b>	112 tons/year removed	13 tons/year removed
<b>Annual Total REDUCTION in Air Pollutants</b>	<i>168 tons/year</i>	<i>34 tons/year</i>

# Liberty Quarry On-Highway Truck Emission Reduction Pilot Program

## The Issue

- 30% of CA PM and NOx diesel emissions are in the South Coast air basin
- Highway trucks and buses are the number one source of diesel emissions
- New regulations target on highway trucks for aggressive emission reductions

## The Challenge

- Diesel engines are built to last for decades
- New regulations won't hit majority of trucks on the road until years into the future
- Replacement is expensive
- Fleet owners typically defer replacement/retrofit as long as possible
- Funding is limited for large scale, industry specific replacement/retrofit programs
- Mining industry is historically resistant to new, expensive regulatory changes targeted at them
- Efforts to implement off-road programs have been met with significant industry resistance

## Liberty Quarry Project

- Project location allows reduction in truck transport miles and results in related emission reductions
- Alternative sources produce significantly more truck miles and emissions
- Majority of fleet trucks initially using the quarry will be pre-2007 engines
- At full capacity, 130 total on-highway truck equivalents needed (100,000 miles each/yr)
- Full benefit of new emission reductions for all of those vehicles will be delayed until/unless
  - operational capacity is reached in 2020
  - regulations require replacement/retrofit in the future
  - funding is available for voluntary replacement/retrofit

## Potential Pilot Emission Reduction Program

### Goals:

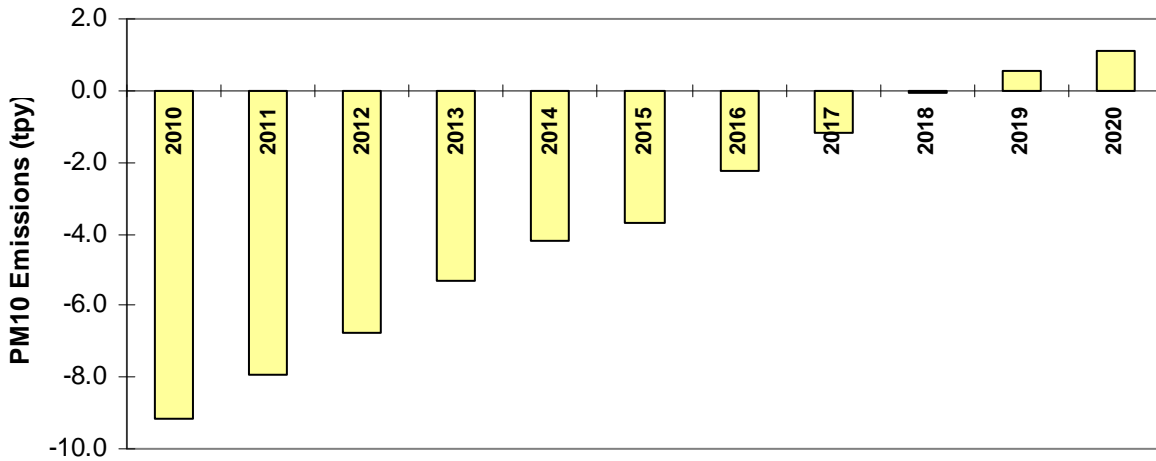
1. To realize at project start up the full potential (5 mm tpy capacity) for emission reductions for on-highway trucks (equivalents) using Liberty Quarry.
2. To pilot a potential model for the industry that Granite would assist in introducing to others

### Granite would agree to:

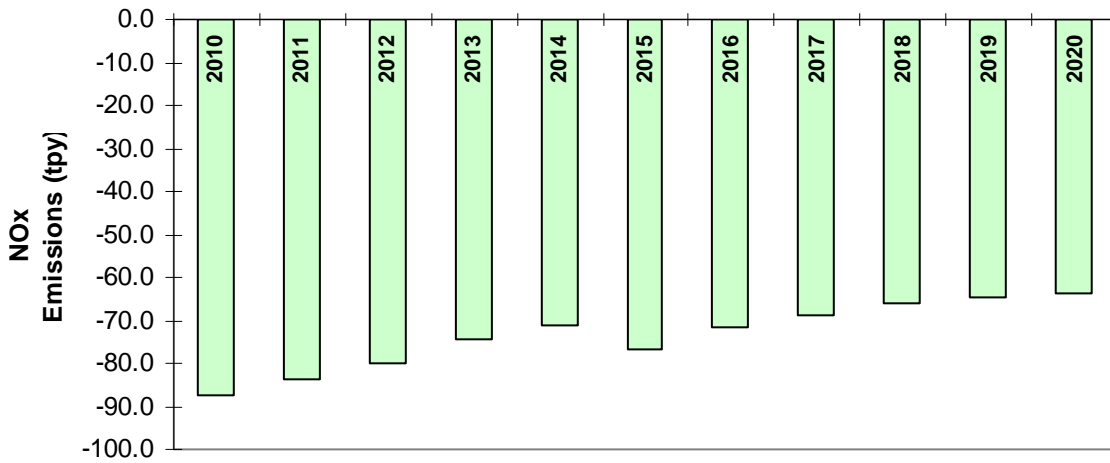
- Require new 2007+ engines at start up for all Granite fleet (10)
- Fund diesel particulate filters for all site based concrete fleet trucks (30)
- Fund diesel particulate filters for remaining truck equivalents in the South Coast Air Basin (90)

<b>Combination of New and DPF Engines in 2010 for 130 Trucks</b>		
	<b>PM10</b>	<b>NOx</b>
Baseline 130 Trucks in 2010 Exhaust Only (tpy)	14.6	254.7
Reduction from 30 concrete DPFs	-2.9	-23.5
Reduction from 10 Granite 2007+ Engines	-1.0	-18.6
Reduction from 90 additional DPFs	-8.6	-70.5
<b>Total Engine Emission Reductions</b>	<b>-12.5</b>	<b>-112.7</b>

**Figure 1: PM10**  
**Net of Liberty Quarry On-Site Emissions Less Emission Reductions from**  
**Retrofitting 120 Truck Engines and 10 New Truck Engines in 2010**  
**(NOT Accounting for NSR Offsets)**



**Figure 2: NOx**  
**Net of Liberty Quarry On-Site Emissions Less Emission Reductions from**  
**Retrofitting 120 Truck Engines and 10 New Truck Engines in 2010**  
**(NOT Accounting for NSR Offsets)**



**Reductions Assume:**

Trucks travel 100,000 miles per year.

30 concrete trucks with DPF; 10 Granite agg trucks with 2007 + Engines, 90 additional agg trucks with DPF.

DPF reduces PM10 by 85% and NOx by 40%.

2007+ engines reduce PM10 by 90% and NOx by 95%.