

Portland's Clean Diesel Initiative Builds New Specs for Green Construction

by Jan Lee (<http://www.triplepundit.com/author/jan-lee/>) on Thursday, Oct 15th, 2015



The question of how to reduce automotive diesel emissions has been on the minds of many these days — and not just those preoccupied with the fallout from automakers' recent scandals

(<http://www.triplepundit.com/2015/10/14/emissions-scandal-reveals-dirty-side-clean-diesel-brand/>). As many well-established development companies can attest, real estate construction is dirty business. And its environmental impact is complicated by the type of heavy equipment that is required and the years — or, in some cases, decades — that projects often last.

For urban communities, and the developers that invest in the area in the form of new infrastructure, the length and breadth of a project can present a myriad of challenges, from noise and traffic control to air quality and emissions concerns.

One Portland, Oregon, development company, however, thinks it's found the answer. And as is often the case, its success relied on patient

networking, dogged research and diligent note-taking.

Calm Pacific LLC (<http://calmpacific.com/>), which is known for its urban development projects, embarked on a multi-use project last year that involved redeveloping an 17 acres in popular Northwest Portland. Located smack in the middle of one of Portland's densest neighborhoods — a vibrant, desirable area near downtown — the shipping facility and parking lot offered the perfect setting for a new, upscale community of buildings.

The first project developed as a joint project with Captstone Partners LLC, started last year, will become a mid-rise residential building with multi-use functionality. The LL Hawkins (<http://thellhawkins.com/>), named after the 19th century entrepreneur and banker Lester Leander Hawkins who helped set the foundation for Portland's turn-of-the-century success, would include a rooftop lounge, spacious residences, and retail shops and restaurants on the ground level.

Tom DiChiara, a co-founder of Calm Pacific, credits the Northwest District Association (<http://www.northwestdistrictassociation.org/>) with coming up with the questions and ingenuity that would eventually launch the clean diesel initiative. He said it was the neighborhood association's desire to find a way to lessen diesel emissions (and other environmental impacts) that brought the developer, the residents, the state's

Department of Environmental Quality (DEQ) (<http://www.deq.state.or.us/aq/diesel/initiative.htm>) and a myriad of contracting companies together to explore sustainability options.

"The projects we're working on in Northwest Portland are part of a large master plan" that was developed with heavy input from the neighborhood, DiChiara told 3p. "[The] Northwest Portland District Association raised concerns about air quality during construction," and a sub-committee was assigned to investigate whether the developer and contractors would be open to establishing some standards for diesel emissions. They were, and agreed to participate in a carefully outlined plan that involved a carefully laid-out set of steps and specifications designed to reduce carbon emissions during construction.



"It was a pretty elaborate point system that essentially monitored every piece of equipment that was on site, the type of motor it had, how long it ran and the day it ran. Our contractor cataloged all that activity on site. And we did a monthly check-in with the neighborhood association to see how we were doing in relation to the goals that were established by that plan."

At the heart of the plan was establishing what tier, or emission standards could be used on site. "Basically we wanted to encourage that all these motors on site were either Tier 4 or Tier 4 i

(<http://www3.epa.gov/otaq/nonroad-diesel.htm>) [EPA designations for non-road diesel emissions]. They are the latest clean diesel technology," DiChiara continued. "And as to the ones that weren't compliant, there was some thought that the DEQ would have some funds available to retrofit some of those machines."

Unfortunately, the funding application wasn't approved in time for that stage of the project, so Calm Pacific worked around the issue by finding subcontractors who could rent compliant equipment.

DiChiara said having access to the Tier 4 technology (<http://www3.epa.gov/otaq/nonroad-diesel.htm>) was essential to making the clean diesel project a success, but it can be a challenge to find some types of machines like pile drivers and other heavy equipment that currently meet those standards. "It is a really big challenge in the market," he said. "You try to push the market where you can but a lot of

(contractors) don't have the newest equipment, and equipment such as excavators, loaders, and other heavy diesel machines are extremely expensive, so people hang on to them for a long time."

Kevin Downing, coordinator for DEQ's Clean Diesel Initiative, said there are two federal programs (<http://www2.epa.gov/cleandiesel/>) that offer grants to retrofit diesel equipment that aren't up to Tier 4 specs, and his office helps contractors apply for and access those funds. The first is the Diesel Emissions Reduction Act, which allocates money for such uses on a regional basis. The second is the Department of Transportation's Congestion Mitigation and Air Quality Act (CMAQ).

"We see as ourselves actually as working as a consultant in a large part," Downing said. The agency not only provides contact information, but provides input to help the contractors submit the best proposals possible. "We will help any Oregon project develop a proposal that best meets what EPA is looking for in their funding guidelines." Participation in the clean diesel initiative is voluntary.

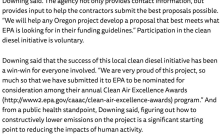
Downing said that the success of this local clean diesel initiative has been a win-win for everyone involved. "We are very proud of this project, so much so that we have submitted it to EPA to be nominated for consideration among their annual Clean Air Excellence Awards

(<http://www2.epa.gov/caaac/clean-air-excellence-awards>) program." And from a public health standpoint, Downing said, figuring out how to constructively lower emissions on the project is a significant starting point to reducing the impacts of human activity.

"Every ton of diesel particulate that is reduce contributes to an improvement in public health and environment that ranges from reduced risk for cancer, heart disease, heart attacks, asthma, bronchitis and COPD," as well as other diseases, Downing said. "So, the diesel engines are very powerful and an integral part of the American economy. They are the most efficient internal combustion engine in the world and their power and durability means that they are widely used in many applications where power and torque are really necessary for construction activity."

Figuring out how to lower emissions — and sometimes within limited marketing options, as DiChiara pointed out — not only ensure that construction projects can proceed as necessary, but that impacts to the environment and its residents are kept to a minimum.

This particular clean diesel initiative also accomplishes a milestone, Downing said, because it is the first privately-funded and established clean diesel initiative in Oregon. It is also believed to be the first of its kind in the country. That makes the accomplishments all the sweeter, Downing concluded.



DiChiara said that Calm Pacific will continue the clean diesel initiative when it breaks ground for the next stage of development. The particular needs of that project will help refine the specs even further.

"Our intention would be to continue when we start next year with the next couple of blocks adjacent to the property we just finished within the master plan and we expect to be able to take the lessons learned in the program and continue to implement that next project," he said.

The underground garage the company will build will test the limits of these specifications, and help them explore more ways to refine the concept to meet other construction and market demands. "We're hoping that the DEQ funds for retrofits will be available in time for that project so that we can expand the outreach to other subcontractors that have older equipment."

He said working with the neighborhood organization offered excellent opportunities to learn new ways of meeting green standards, which he says is a guidepost for his company. "I think it is fair to call it the cleanest construction project in the city," said DiChiara, who says he is using what he learned to encourage green changes in Portland's construction industry. "There really isn't a down side to it from the society and neighborhood point of view; it's just trying to make it happen."

Images: Courtesy of Calm Pacific LLC (<http://calmpacific.com/>)



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