

Diesel Clean-Up Campaign

A win for health, climate and jobs

Clean Construction at Hospitals: Protecting Patient and Community Health

Summary: Many healthcare facilities have prioritized environmentally responsible practices, but reducing diesel pollution has often been overlooked, until now. Highly problematic but easily prevented, exposure to particulate matter soot in diesel exhaust has been linked to diabetes, stroke, heart attack, cancer and over 21,000 premature deaths in the U.S. annually. Pollution from diesel construction equipment is of special concern because this sector had no emission standards prior to 1996.

Environmental Protection Agency regulations now require new engines to be 90% cleaner. These regulations are being phased in through 2015. However, the durability of the older, dirty diesel engines means that much of the construction equipment without modern particulate matter (PM) pollution controls will continue to be in use for decades before being replaced by new, cleaner equipment. Retrofits are available to clean up dirty equipment to modern standards. Hospitals, universities and cities are adopting Clean Construction policies requiring that only clean equipment with modern PM pollution controls be used on their building projects. Adopting Clean Construction policies at healthcare facilities can protect patients, staff and community members from exposure to toxic diesel pollution near the construction site, can encourage financial support, and can help to support additional clean air action elsewhere by adding to the collective call for clean air.



“As a leader in quality, patient-centered care, UPMC aims to be an industry leader in sustainable health care through implementing progressive environmental initiatives that benefit the communities it serves.”

~ Allison Robinson, Ph.D., Director of Environmental Initiatives, University of Pittsburgh Medical Center ~

Health Impacts of Diesel Exhaust

- Diesel pollution causes **21,000 premature U.S. deaths** annually.
- Toxics attach to the outside of tiny diesel particles, which are small enough **to invade the lungs, enter the bloodstream** and trigger cardiovascular disease (heart attacks and stroke) and travel to other organs.
- There is **no safe level** of particulate matter exposure, according to the HEI National Morbidity and Mortality Particulate Matter Study (2004).
- The particulate matter in diesel exhaust includes over **40 air toxics**, and poses **3X** the lung cancer risk of **all** other air toxics in EPA’s latest NATA assessment **combined**.
- The Good News: **Mortality is reduced when particles are reduced** (Harvard Six Cities Study, 2006).

American Hospital Association’s Drivers and Motivators for Sustainability

Public Relations – A commitment to environmental stewardship and corporate social responsibility has significant marketing value, can help attract and retain staff, and provides opportunities for professional awards.

Social Responsibility – Environmental health impacts human health. It makes sense that hospitals take a leadership role in helping to reduce environmental impacts that may affect public health.

Diesel Pollution at Construction Sites

- Diesel exhaust is most concentrated where it is being emitted from the tailpipe (on a roadway or construction site), creating a zone of greatest exposure for people nearby.
- To provide accessible care, medical facilities are often built in densely populated areas. Clean Construction policies can limit exposing neighbors, patients, visitors and staff to diesel exhaust during the construction process.
- Clean Construction policies that require filters on equipment can virtually eliminate particulate matter pollution, as well as black carbon, a warming pollutant that is 2000 times more potent than CO₂.

What is a Clean Construction Policy?

A Clean Construction policy requires the use of cleaner equipment and anti-idling measures at construction sites in order to limit particulate matter (PM) pollution from the tailpipe. The diesel particulate filter (DPF) is the only device verified by EPA to reduce diesel PM by at least 90%. Required on most new diesel engines, these filters can also be retrofitted onto older, dirtier engines to achieve the same pollution reductions. To best protect public health, a Clean Construction policy would require a DPF on all equipment (new or used, owned or rented) used on site. In addition, an idling limitation of five minutes is common. These requirements are incorporated into the contract specifications. Compliance is the responsibility of the contractor, and should not increase cost to the hospital. Compliance can be achieved with rented equipment, or equipment owned by the contractor that is new or has been retrofitted. For a sample Clean Construction Policy that is being used at the University of Pittsburgh Medical Center and the related press release with local environmental groups praising UPMC for its action, please go to <http://dieselcleanup.org/statelocalpolicy.html>

"Brigham and Women's Hospital values its patients, staff and neighbors' health and well-being. We realized that by making relatively easy operational and equipment changes on our construction jobs, we can be successful in lowering the amount of diesel pollutants in the air we breathe."

~ Stephen Dempsey, Director of Facilities, Planning & Construction, Brigham and Women's Hospital, Boston ~

Benefits of Adopting a Clean Construction Policy

- **Health** – Protects the health of patients, visitors, staff, construction workers and neighbors.
- **Fundraising** - Environmental sustainability is a priority for many donors and foundations.
- **Good PR** - Corporate Social Responsibility provides marketing value, attracts/retains staff, and provides opportunities for professional awards.
- **Good Neighbor** – Limiting construction pollution helps protect community health, especially in counties not meeting federal air quality standards. Cleaner sites help nearby businesses.
- **The Greater Good** - EPA estimates that for every dollar spent on reducing diesel particulate matter pollution, \$12 would be saved in health damages.
- **Multiplier Effect** – The Diesel Clean-Up Campaign is working on the local and federal level to reduce diesel pollution. Any institution adopting clean construction standards helps to support additional clean air action elsewhere by adding to the collective call for clean air.

Getting Started

The Diesel Clean-Up Campaign is a national coalition working with hospitals and other institutions to improve air quality by reducing diesel emissions. For Clean Construction policy resources, go to <http://dieselcleanup.org/statelocalpolicy.html> or contact Brooke Suter at facts@dieselcleanup.org

January 12, 2012