Some resources for thinking about the Martin Tower demolition (37)

The Bethlehem Gadfly Martin Tower, Serious Issues May 8, 2019

(37th in a series on Martin Tower)

Martin Tower demolition May 19

www.martintowerbethlehem.com

Informational meeting

Thursday, May 9, 6PM

Nitschmann Middle School

"It is amazing to me that so many people are reacting to this implosion

as entertainment or spectacle rather than a health risk."

Barbara Diamond

Gadfly tip o' the hat and wave o' the wings for the following thought-provokers to Steve Diamond, Nalyn Marcus, Marty Romeril, and Peter Crownfield.

Gadfly is not taking time right now to comment in detail on the information here, just getting some things "out there" providing some resources for you to consider.

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Steven Diamond, "Citizens' health must be protected during Martin Tower implosion." Morning Call, May 8, 2019.

- I am a forensic pathologist. I recently performed an autopsy on a person who frequented the 911 World Trade Center location in New York City. He simply walked by the disaster site a few days a week. Now 15 years later, the person died of lung disease and is part of the 911 lawsuit settlement.
- Lung disease may occur secondary to different aerosols of particulates. It does not have to be related to asbestos. A hyperimmune response may cause interstitial fibrosis of the lung, which causes decreased oxygenation of the blood. The fibrosis in the lung and decreased oxygen of the blood strains the heart and may cause congestive heart disease. Sadly, this process may take many years, and those effected may not realize the cause and effect of the exposure.
- It is the mission of the city of Bethlehem to protect its citizens and ensure a safe environment. We must have assurances that the implosion of Martin Tower will be done in a competent and safe manner. What will be done to protect the hospitals, medical offices, businesses, schools, parks and residential homes?
- "Best practices" for imploding a building have been published. The implosion should adhere to those parameters.

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COMMUNITY INFORMATION: STORMS HALL AND KNAPP HALL DEMOLITION Iowa State University 2005

especially:

F.A.Q.

General Community Notice of Implosion (pdf)

6-28 Letter to Residence of Safety Zone (pdf)

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(PDF) An Evaluation of Buildings Destruction Technique and Its Menace | Nuruddeen Usman

Buildings are composed of many construction materials made of large quantities of chemical substances and additives bonded together for years. Consequently, the issue occurs when uprooting an existing building. The conventional methods of annihilating an existing building induce hazardous substance into the environment that is threatening human health due to the presence of chemical substance in the dust of the pulverized building. Therefore, the main purpose of this paper is to conceptually synthesize the traditional methods of demolition buildings and the chemical substances presence in the pulverized building dust, as well as their effect to the human health and the environment in order to proffer for an alternative solution. The outcome of the studies reveals that dust emanation from demolished buildings definitely pollutes the environment and affects human health. Hence, deconstruction is proffer as an alternative method. Also, this study sensitize scholars to focus more on inventing green construction materials, green demolition methods, and green junkyard for the pulverized building debris.

The implosion of the Calgary General Hospital: ambient air quality issues. – PubMed

Problematic issues surrounding public health protection in affected areas that could extend 10 or 20 km downwind from an implosion site suggest that implosions

should be prohibited in metropolitan areas.

Risk Assessment of Exposure to Silica Dust in Building Demolition Sites

Conclusion: Geometric and arithmetic mean of exposure was higher than threshold limit value for silica dust in all demolition sites. The risk of silicosis mortality for many demolition workers was higher than 1/ 1,000 (unacceptable level of risk). Estimating the lifetime lung cancer mortality showed a higher risk of mortality from lung cancer in building demolition workers.

Dust from demolition fades quickly, study finds – Baltimore Sun

Scientists found that the concentration of airborne dust particles in the immediate area jumped substantially in the minutes after the implosion – as much as 3,000 times higher than just before the charges went off. About 7 1/2 blocks away, the concentration increased about 20 times when the plume of dust reached the area.

But within 15 to 20 minutes, the concentration of airborne dust had returned to pre-implosion levels, according to the report. Indoor monitors detected no significant change in dust particles.

"The Implosion of the Calgary General Hospital: Ambient Air Quality Issues"

Public advisories to mitigate personal exposure and indoor migration of the implosion dust cloud constituents should extend to 10 or 20 km around an implosion site.

"Spectators Discouraged from Watching Building Demolitions"

They found that immediately after the implosion, concentrations of airborne dust particles were as much as 3,000 times higher than they had been prior to the demolition. As expected, sites nearest to the implosion had a more dramatic and earlier peak when compared to sites further away. Even at the furthest site, seven and one-half blocks from the implosion, there was a 20-fold increase in particulate matter. The good news, according to the researchers, is that the peaks were very short-lived, lasting only 15-20 minutes. No measurable effect was found upwind of the implosion, nor in the indoor sample sites. The researchers suggest that remaining upwind of a building demolition and staying indoors offers protection from high outdoor concentrations of dust particles.

The Dirt on Atmospheric Dust

It might seem small, but atmospheric dust is a big deal. Consisting (mostly) of tiny pieces of metal oxides, clays and carbonates, dust is the single largest component of the aerosols in Earth's atmosphere, and it likely has a significant impact on the Earth's climate, as it effects a wide range of phenomena, including from temperatures in the Atlantic Ocean to the rate of snowmelt in the southwestern U.S.