

# Letter Health Consultation

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WEST POINT CONCRETE SITE: HORGAN RECYCLING

(a/k/a HORGAN RECYCLING SITE)

WEST POINT, MONTGOMERY COUNTY, PENNSYLVANIA

OCTOBER 29, 2007

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Public Health Service  
Agency for Toxic Substances and Disease Registry  
Division of Health Assessment and Consultation  
Atlanta, Georgia 30333

## **Health Consultation: A Note of Explanation**

An ATSDR health consultation is a verbal or written response from ATSDR to a specific request for information about health risks related to a specific site, a chemical release, or the presence of hazardous material. In order to prevent or mitigate exposures, a consultation may lead to specific actions, such as restricting use of or replacing water supplies; intensifying environmental sampling; restricting site access; or removing the contaminated material.

In addition, consultations may recommend additional public health actions, such as conducting health surveillance activities to evaluate exposure or trends in adverse health outcomes; conducting biological indicators of exposure studies to assess exposure; and providing health education for health care providers and community members. This concludes the health consultation process for this site, unless additional information is obtained by ATSDR which, in the Agency's opinion, indicates a need to revise or append the conclusions previously issued.

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LETTER HEALTH CONSULTATION

WEST POINT CONCRETE SITE: HORGAN RECYCLING

(a/k/a HORGAN RECYCLING SITE)

WEST POINT, MONTGOMERY COUNTY, PENNSYLVANIA

Prepared By:

The Pennsylvania Department of Health  
under Cooperative Agreement with the  
Agency for Toxic Substances and Disease Registry



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October 25, 2007

Jack Kelly (3HS3), OSC  
USEPA Region III  
1650 Arch Street, Philadelphia, PA 19103

**Subject: Interagency letter health consultation between the Pennsylvania Department of Health (PADOH) and the Agency for Toxic Substances and Disease Registry (ATSDR) and the United States Environmental Protection Agency for the West Point Concrete Site: Horgan Recycling in West Point, PA**

Dear Jack,

Enclosed is an interagency letter health consultation (LHC) between the Pennsylvania Department of Health (PADOH) and the Agency for Toxic Substances and Disease Registry (ATSDR) and the United States Environmental Protection Agency (EPA). At the request of EPA, PADOH, under a cooperative agreement with ATSDR, prepared this LHC for the **West Point Concrete Site: Horgan Recycling** in West Point, Pennsylvania. The Site consists of two facilities located adjacent to each other, Horgan Recycling Inc and Allied Concrete and Supply Corporation. The purpose of the LHC is to collaboratively evaluate respirable dust and respirable silica air data collected by EPA and to determine if the data indicate any potential public health implications for this community. In August 2006 and in September 2007, air samples were collected by EPA at six separate points in a circumference around and near the Horgan Recycling Inc and Allied Concrete and Supply Corporation facilities and provided to PADOH.

As EPA is aware, operations at the two facilities are under the regulatory jurisdiction of the Pennsylvania Department of Environmental Protection (DEP) for air quality and the Pennsylvania Occupational Safety and Health Agency (OSHA) for worker exposure concerns. In 2004, a concerned citizen petitioned ATSDR Region 3 in Philadelphia, Pennsylvania, by way of contacting the United States Centers for Disease Control and Prevention: National Center for Environmental Health (CDC: NCEH) about this site and the community health concerns. The key community health concerns focused on a daycare very near the site and on children living in the area and attending the daycare. ATSDR consequently contacted PADOH to assist in reviewing the situation. In the recent past, PADOH had discussed the situation with the Upper Gwynedd Township Officials. Upper Gwynedd Township Officials stated that they were enforcing that the maximum possible dust suppression controls and noise controls be utilized by both of these concrete and cement companies. PADOH also had completed a letter about the situation to the concerned resident. Additionally, ATSDR requested the assistance of a pediatrician from George Washington University in Washington, DC regarding this matter. Ideally, because respirable silica can accumulate over a lifetime, children should be protected from exposure to respirable silica. It was noted by the pediatrician that for individuals with asthma, exposure to dust can be one of the things that can cause an exacerbation of asthma



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symptoms. Even in individuals with normal pulmonary function, exposure to silica dust has the potential to cause both acute and chronic pulmonary damage.

As a response to ATSDR and the community requests, EPA collected the two rounds of air sampling data for respirable dust and silica ambient air data. The first sampling event represented conditions where the Allied Concrete and Supply Corporation was in operation, but the Horgan facility crusher was not operating. The second sampling event represented conditions when both facilities, including the crusher, were operating. *Based on these two limited sampling events, PADOH and ATSDR conclude that excess dust and silica (i.e. levels out of compliance with current standards) do not appear to be currently migrating into the community near the concrete site; therefore, currently there is no apparent public health hazard from respirable dust and respirable silica for community members living near this site.* Community members also have ongoing concerns about diesel trucks at the site. *PADOH and ATSDR will continue to discuss this concern with community members and local authorities as appropriate.*

Sincerely,

Pauline Risser-Clemens, M.S.  
*Pennsylvania Department of Health  
Division of Environmental Assessment and Epidemiology  
Bureau of Epidemiology  
Harrisburg, PA 17120  
Phone: (717) 265-8883*



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## **Appendix 1:**

### **Background and Statement of Issues**

#### ***Background***

This letter health consultation (LHC) is an interagency LHC between the Pennsylvania Department of Health (PADOH) and the Agency for Toxic Substances and Disease Registry (ATSDR) and the United States Environmental Protection Agency (EPA). At the request of EPA Region 3, PADOH, under a cooperative agreement with ATSDR, prepared this LHC for the **West Point Concrete Site: Horgan Recycling**, West Point, Pennsylvania. The purpose of the LHC is to collaboratively evaluate respirable dust and respirable silica air data collected by EPA and to determine if the data indicate any potential public health implications for the community.

In 2004, a concerned citizen petitioned ATSDR Region 3 in Philadelphia, Pennsylvania, by way of contacting the United States Centers for Disease Control and Prevention: National Center for Environmental Health (CDC: NCEH) about this site and the community health concerns. The key community health concerns focused on a daycare very near the site and on children living in the area and attending the daycare.

#### ***Site History***

The site consists of two facilities located adjacent to each other, Horgan Recycling and Allied Concrete and Supply Corporation. The West Point Concrete Site: Horgan Recycling is in southeastern Pennsylvania in West Point, Montgomery County (See [Appendix 2 - Figure 2](#)). At the West Point Concrete Site, the Horgan Recycling, Inc. facility operation is under the regulatory jurisdiction of the Pennsylvania Department of Environmental Protection (DEP) for air quality and the Occupational Safety and Health Agency (OSHA) for worker exposure compliance, as is the adjacent Allied Concrete and Supply Corporation facility. DEP monitors the two facilities and their operations to ensure that the environmental status is in compliance with State and Federal regulations and requirements.

#### ***Past Actions by the Pennsylvania Department of Environmental Protection, the Pennsylvania Occupational Safety and Health Agency, the Pennsylvania Department of Health, and the Agency for Toxic Substances and Disease Registry***

DEP has been on-site for facility inspections numerous times during the past several years, and sampled the air for silica and found levels in compliance with standards. In a letter to the concerned resident and concerned community group in February 2006, the Pennsylvania Department of Health (PADOH) stated that they had reviewed the DEP inspection reports and sample results from April 2004 through October 2005. PADOH also was aware that there were several notices of violation (NOVs) issued from DEP to Allied Concrete and Supply for air pollution and fugitive emissions violations in 2004 and in March 2005, and that the company resolved the situations in each instance to prevent future emissions/violations from occurring. Additionally, OSHA did not cite any health violations and stated that previously there has never



been a problem at the concrete recycling facility. In the recent past, PADOH had discussed the situation with the Upper Gwynedd Township Officials and enforcement of the maximum possible dust suppression controls and noise controls utilized by both of these companies. PADOH also had produced a letter about the situation to a concerned resident. In the letter, PADOH noted that it has been well documented that chronic exposure to any type of dust may contribute to respiratory diseases. The letter also stated that on-site workers would be expected to be at the highest risk of exposure and harmful health effects; therefore, although there were no air monitoring data for residential areas immediately near the facilities, PADOH expected that that the residential areas even in close proximity to the facilities would experience much lower levels of exposure to, and harmful health effects of, respirable dust and silica. ATSDR requested the assistance of a pediatrician at George Washington University in Washington, DC and consequently one child was referred to the pediatrician for case review [1]. ATSDR consequently contacted PADOH and EPA to assist in reviewing the situation. In the recent past, PADOH had discussed the situation with the Upper Gwynedd Township Officials. Upper Gwynedd Township Officials stated that they were enforcing that the maximum possible dust suppression controls and noise controls be utilized by both of these concrete and cement companies. Since that time, the owner of Horgan Recycling, Inc applied for and received a permit from DEP to expand their concrete and asphalt crushing operation in West Point, PA.

### ***Site Visit***

ATSDR representatives have observed the site several times, especially in 2005 and in 2006. In October 2006, the PADOH Environmental Health Assessment Program personnel conducted a site visit at West Point, PA and viewed the situation in the community surrounding the site and the location of the daycare of concern.

### **Discussion**

PADOH generally uses comparison values (CVs) developed by ATSDR to determine which contaminants require further evaluation based on health screening levels. In the specific case of exposures to respirable dust and respirable silica, ATSDR does not have CVs and also does not have minimum risk levels (MRLs) available. Therefore, to evaluate any inhalation exposure, other sources would need to be used and comparisons would need to be made to ambient levels, especially for respiratory dust. The percentage of crystalline silica within air samples can vary from near zero to 60% (ranging from the dust storms in foreign countries - highest value; agricultural activities - 3 to 17%; industrial processes - 6 to 12%) [2]. The presence of dust in urban air is not uncommon. Indoor air, as well as areas near source-dominated locations, could potentially contain even higher levels of dust. For example, construction workers who sand drywall joint compound are often exposed to high concentrations of dusts and, in some cases, respirable silica. Smokers or workers with sinus or respiratory conditions may risk even worse health problems. These workers may also face an increased risk of silicosis and lung cancer [3].

In general, National Institute for Occupational Safety and Health (NIOSH) does not provide or recommend health criteria for respirable dust. EPA has a national ambient air quality standard (to protect the general public) of 150 micrograms per meter ( $\mu\text{g}/\text{m}^3$ ) for particles up to 10 microns in



size averaged over a 24-hour period [4]. OSHA had established a crystalline silica time weighted average chronic recommended exposure limit (REL TWA) for inhalation of workers at  $50 \text{ ug/m}^3$ , and both NIOSH and the American Conference of Governmental Industrial Hygienists recommend this exposure limit. There are no community exposure criteria for crystalline silica, though an advisory panel after the World Trade Center collapse considered  $5.0 \text{ ug/m}^3$  as a health bench mark for indoor air [4]. California established a chronic recommended exposure limit (REL)  $3 \text{ ug/m}^3$  for inhalation in February 2000 [1, 5]. There are no specific data for children. However, uncertainty factors were adopted, which NIOSH believes protect children [1].

### *Off-site (Community) Respirable Dust and Respirable Silica Samples*

In August 2006 and in September 2007, air samples were collected by EPA at six separate locations in a circumference around and near the concrete and asphalt recycling facility as a response to a request from ATSDR for assistance in evaluating the West Point site. To determine if there might be possible health effects for this community from site-specific respirable dust and respirable silica, EPA, ATSDR, and PADOH reviewed the two rounds of air data. Because of a lack of non-occupational respirable silica method, EPA used the NIOSH method 7500 (modified). This is geared for 8- and 10-hour occupational exposures. The laboratory results showed that the levels of the samples taken were below the *analytical sensitivity* (see [Appendix 3 – Table](#)). Table 1 lists the analytical results and analytical detection levels per sample location. No respirable dust and respirable silica were detected at levels above the detection limit. After evaluating the current air sample data, *PADOH and ATSDR determined that there is no measurable exposure to respirable silica by inhalation at this site.*

## **Child Health Considerations**

ATSDR and PADOH recognize that children are especially sensitive when exposed to many contaminants. Sensitivity to respirable dust and respirable silica may result from the following:

1. Children are shorter than adults, which means they can breathe dust and soil close to the ground; and
2. Children are smaller; therefore childhood exposure results in higher doses of contaminants per body weight.

Human beings have always been exposed to dusts, more or less depending upon where a person might live and their lifestyle and their occupations. Ideally, because respirable silica can accumulate over a lifetime, children should especially be protected from exposure to excess respirable silica. For individuals with asthma, exposure to dust can be one of the things that can cause an exacerbation of symptoms [1]. Even in individuals with normal pulmonary function, exposure to silica dust has the potential to cause both acute and chronic pulmonary damage [1]. ATSDR and PADOH considered exposures, through possible inhalation of respirable silica, of children off-site. After reviewing the available information, ATSDR and PADOH determined exposures based on the most recent air sample data, currently, pose no apparent public health hazard for children.





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## Conclusions

As a response to ATSDR and the community requests, EPA collected the two rounds of air sampling data for respirable dust and silica ambient air data. The first sampling event represented conditions where the Allied Concrete and Supply Corporation was in operation, but the Horgan facility crusher was not operating. The second sampling event represented conditions when both facilities, including the crusher, were operating. *Based on these two limited sampling events, PADOH and ATSDR conclude that excess dust and silica (i.e. levels out of compliance with current standards) do not appear to be currently migrating into the community near the concrete site; therefore, currently there is no apparent public health hazard from respirable dust and respirable silica for community members living near this site.* Community members also have ongoing concerns about diesel trucks at the site. *PADOH and ATSDR will continue to discuss this concern with community members and local authorities as appropriate.*

## Recommendations

PADOH and ATSDR have evaluated all of the respirable dust and respirable silica sample results from the August 2006 and September 2007 rounds of air sampling and, *currently*, there are no further recommendations at this time.

## Public Health Action Plan

ATSDR and PADOH will provide and discuss this inter-agency LHC with EPA and DEP, and will provide the community of West Point, Pennsylvania, and the Upper Gwynedd Township Officials with the sample data used for the findings in this LHC.

Community members have mentioned ongoing concerns about whether there might be health effects from air contaminants related to a possible increased number of diesel trucks entering and exiting the site, particularly with respect to children waiting for school buses near this location. *PADOH and ATSDR will continue to discuss this concern with community members and local authorities to see if there are any possibly voluntary solutions that could mitigate this issue.*

## References

1. Internal letter from Dr. A. Paulson, MD, Associate Professor of Pediatrics and Public Health, Co-Director, Mid-Atlantic Center for Children's Health and the Environment, George Washington University.
2. *Ambient Levels and Noncancer Health Effects of Inhaled Crystalline and Amorphous Silica: Health Issue Assessment*. Document ID number EPA/600/R-95/115. November 1996. The document may be found on-line at <http://www.epa.gov/NCEA/pdfs/0604.pdf>, last accessed September 2007.
3. NIOSH hazard controls HC30. The document may be found on-line at <http://www.cdc.gov/Niosh/hc30.html>, last accessed September 2007.
4. EPA internal correspondence to ATSDR from Jack Kelly, OSC, EPA Region 3, Philadelphia, Pennsylvania, March 22, 2007.
5. California's Office of Environmental Health Hazard Assessment - Chronic Toxicity Summary Silica (Crystalline, Respirable). The document may be found on-line at [http://www.oehha.org/air/chronic\\_rels/pdf/silicacrel\\_final.pdf](http://www.oehha.org/air/chronic_rels/pdf/silicacrel_final.pdf), last accessed September 2007.

## **Authors, Technical Advisors**

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Division of Health Assessment and Consultation  
Agency for Toxic Substances and Disease Registry

And

Lora Werner, MPH  
Senior Regional Representative  
ATSDR Region 3



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## Certification

This letter health consultation for the West Point Concrete Site: Horgan Recycling was prepared by the PADOH under a cooperative agreement with ATSDR. It is in accordance with approved methodology and procedures existing at the time the health consultation were initiated. Editorial review was completed by the cooperative agreement partner.

A handwritten signature in black ink, appearing to read "Alan G. Parham". The signature is written in a cursive style and is positioned above a horizontal line.

CDR Alan G. Parham, MPH, REHS

Technical Project Officer, CAT, CAPEB, DHAC, ATSDR

The Division of Health Assessment and Consultation (DHAC), ATSDR, has reviewed this health consultation and concurs with its findings.

A handwritten signature in blue ink, appearing to read "Alan W. Yarbrough". The signature is written in a cursive style and is positioned above a horizontal line.

Alan W. Yarbrough, MS

Lead, Cooperative Agreement Team, SPS, CAPEB, DHAC, ATSDR

**Appendix 2:**

**Sample locations at the West Point Concrete Site: Horgan Recycling**





### Appendix 3:

#### August 2006 and September 2007 Analytical Results per Sample Location

<i>Sampling Locations</i>	<i>Respirable Dust (ug/m<sup>3</sup>)</i>		<i>Respirable Silica (ug/m<sup>3</sup>)</i>	
	<i>2006</i>	<i>2007</i>	<i>2006</i>	<i>2007</i>
HG-AS - 01	< 100	< 50	< 5	< 5
HG-AS - 02	< 100	< 50	< 5	< 5
HG-AS - 03	< 100	< 50	< 5	< 5
HG-AS - 03b	-	< 50	-	< 5
HG-AS - 04	< 100	< 50	< 5	< 5
HG-AS - 05	< 100	< 50	< 5	< 5
HG-AS - 06	< 100	< 50	< 5	< 5

ug/m<sup>3</sup> = micrograms of contaminant per cubic meter of air

3b is a duplicate sample for location HG-AS-03

<100 = less than the method detection level for respirable dust (2006 analysis)  
 <50 = less than the method detection level for respirable dust (2007 analysis)  
 <5 = less than the method detection level for respirable silica (as  $\alpha$ -quartz)