



June 6, 2013

**Fact Sheet # 1**

**Nova-Kem Chemical Fire**  
16161 6<sup>th</sup> Street, Seward, IL 61077  
Winnebago County

**Background**

On Sunday, June 2, 2013, at around 12:30 p.m., Nova-Kem's chemical manufacturing and repackaging plant in Seward, Illinois experienced an explosion and fire. The plant manufactures chemicals for high-technology applications, especially in semi-conductors, and it also repackages chemicals. Because the main chemical that is manufactured at the site, hexachlorodisilane (HCDS), is highly reactive to water, the building was allowed to burn and subsequently a nearby building also caught fire. The fire ended mid-afternoon on June 3<sup>rd</sup>.

HCDS is highly corrosive when inhaled or ingested, or when it comes into contact with skin or eyes. Given the potential risks posed by the chemical, residents surrounding the plant, including all of Seward, were evacuated until June 3<sup>rd</sup>. In addition to the HCDS, chlorine gas escaped into the atmosphere from two chlorine gas tanks on site.

Illinois Environmental Protection Agency (Illinois EPA) staff visited the site on June 3<sup>rd</sup> to investigate the situation. Illinois EPA is working with the Pecatonica District Fire Chief and other local and state emergency responders and health agencies regarding the aftermath of the explosion and fire. Illinois EPA is also working with the Illinois Office of the Attorney General to obtain an interim court order from the Winnebago County Circuit Court that requires Nova-Kem to disclose all chemicals present, investigate how the explosion occurred, and develop a plan to address how residual contamination affected on-site and off-site properties.

**What chemicals were involved in the fire?**

Hexachlorodisilane (HCDS), the main chemical manufactured at the facility, and chlorine gas were involved in the fire. Many other chemicals were used or stored on site. As part of the interim court order being sought by the state, Illinois EPA expects to learn about any other chemicals that might be part of the aftermath of the fire, especially in ash or dust from the fire that may have deposited on residential or commercial property in Seward.

The interim order will require Nova-Kem to perform a full investigation into any contamination off-site on private properties as well as at the facility.

**What areas are impacted by the fire?**

The neighborhood south of the chemical facility was impacted the most by smoke from the fire. Some properties to the east/northeast may have been impacted for a short time when the wind shifted in that direction.



<b>Is the outside air safe to breathe?</b>	Yes. No volatile chemicals (chemicals that easily evaporate into the air) were found in the outside air after the fire.
<b>Is my private drinking water well safe to use?</b>	Chemicals from the plant were mostly consumed by the fire, and since water could not be used to fight the fire, there was reduced risk of pollution from any water runoff. Additionally, most wells are greater than 100 feet deep in this area and likely were not impacted. However, Nova-Kem may be required to conduct sampling of private wells in the future.
<b>How were waterways and surface water affected during the fire?</b>	Waterways may not have been affected by the fire, since water was not used to extinguish it. An investigation performed under an interim order will examine impacts at waterways. The extent of soot or ash deposition on local surface water bodies is unclear at this time but will be included in the off-site investigation.
<b>How should I clean off my children's outside play things and our lawn furniture?</b>	Soap and water should adequately clean off residual silica dust or ash from the fire. One could also use a power washer.
<b>Is it safe to harvest my garden produce?</b>	If there is visual damage or stressed vegetation on garden vegetables, avoid using them. Otherwise, wash the vegetables with dilute soapy water prior to use.
<b>Are my animals or pets safe to be in the yard?</b>	There may have been slight deposition of ash from the smoke plume on some properties in town south of the plant or east/northeast of the plant. However, this residue should contain primarily silicon oxides, which are inert (not reactive) and should not present a health concern. You may wish to water your lawn to cause these residuals to go into the soil.
<b>What other precautions should I take for my family?</b>	Make sure that no children are allowed to play at or around the Nova Kem facility, as a precaution.
<b>What should I do with pieces of debris from the Nova Kem facility found on my private property?</b>	Debris from the fire should be properly disposed of. Illinois EPA recommends using heavy gloves to pick up debris, placing it in plastic bags, and disposing of it in the garbage.
<b>Is the plant owner taking responsibility for any of the sampling or investigation?</b>	<p>The Illinois EPA and the Illinois Office of the Attorney General are working to obtain an interim court order from the Winnebago County Circuit Court. The order will require that Nova-Kem develop a comprehensive sampling program for on-site and off-site areas that may have been impacted by airborne particulates and chemical burn products as well as any water bodies within the chemical evacuation zone.</p> <p>Additionally, the company must propose a work plan to address residual contamination both on-site and off-site that remains after the fire burned out.</p>
<b>What is happening on the site now?</b>	The Interim Court Order will require the site owner to cease all deliveries and removals of chemicals, secure the site from precipitation that could lead to runoff of chemical residue, provide site security, and investigate the structural integrity of the building.

**What are the next steps?**

The Illinois EPA will continue to inform the public as progress is made regarding sampling and other investigative work, along with any work done to address residual on-site and off-site contamination.

**For more information, you may contact:**

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**Map of the Potentially Affected Area**

