

NORTH ALCOA SITE (commonly known as “Red Hill”) Summary of Frequently Asked Community Questions

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If you have any questions concerning the North Alcoa Superfund Alternative Site please contact:

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www.Region5/cleanup/northalcoa

City Clerk’s Office
City of East St. Louis
301 River Park Drive
East St. Louis, IL 62201

East St. Louis Public Library
5300 State St.
East St. Louis, IL 62201

St. Matthew Baptist Church
2908 Louisiana Blvd.
East St. Louis 62205

The 400-acre North Alcoa site is located in a mixed use area in East St. Louis. Aluminum refinery operations began on-site in 1902. The process involved removing the aluminum content from naturally occurring, aluminum-enriched soils, known as bauxite, mined principally in Arkansas. The plant operated until the late 1950s; by the mid-1950s, most production facilities had been demolished and the property sold. Site investigations began in 2001 and are ongoing. The site has been separated into two phases or operable units. The first phase (Operable Unit 1 or OU-1) is comprised of approximately 200 acres within the main portion of the site and is the area where bauxite residue processing waste was disposed. The second phase (Operable Unit 2 or OU-2) includes the remaining 200 acres which consists of a mixture of commercial properties along Missouri Avenue and commercial properties and former ball field recreational areas located along 29th Street. There is a church and several residential properties located along the northwest boundary of Operable Unit 2 along Louisiana Drive.

EPA has held meetings and conducted interviews over the past several years, including a meeting to discuss the OU-1 remedy in 2014. During those meetings, EPA fielded a number of questions regarding the North Alcoa site. Residents asked EPA for a summary of the most frequently asked questions and related answers to be available in a fact sheet. This fact sheet presents that information.

- ***What are the contaminants on the site? What contaminants will be left behind after the remedy is built?***

Metals like arsenic, lead, vanadium, and radioactive elements in the aluminum-bearing ores (bauxite) processed on-site, such as radium 226 and 228, are the main contaminants of concern that remain at the site. The remedy that has been built will protect the community from exposure to these remaining contaminants in the “red hill” area of the site.

This first phase of the remedy for the site is for OU-1. The EPA selected remedy includes leaving process waste materials in place, covering them with two feet of clean soil, and securing the site with fencing to prevent access. Alcoa has placed this soil cover in the OU-1 area and will maintain the cover through a legal agreement with the U.S. EPA. The bulk of this work was completed during calendar years 2014 and 2015. The remaining soil cover will be placed and the site restoration work in OU-1 will be completed in early spring 2016. The remaining work should be completed within 4 to 6 weeks.

The remaining areas of the site will be addressed by a second phase of work, OU-2. The associated environmental investigations and remedy selection process have not been completed for this phase, but are well underway. During 2015 there were two areas within OU-2 from which materials were excavated and consolidated under the OU-1 cover. These areas have been temporarily covered with two feet of clean soil and vegetated as an interim remedy.

- ***Is the construction of the remedy stirring up the contamination?***

Waste materials, mostly gypsum, were consolidated and graded to allow the cover construction over the historic residue disposal areas, or “red hills”. Stormwater and dust controls during construction ensured that contaminants did not move off-site. Several dust monitors were used near the construction areas each work day to monitor on-site dust conditions. This monitoring data indicated that the cover placement did not result in any dust coming from the waste areas during construction. Now that the cover is essentially in place, contaminants will no longer be exposed at the surface and established vegetation will help to eliminate any dust issues from the clean soil cover.

- ***Is the groundwater contaminated?***

The site-wide groundwater investigation and analysis is ongoing and any remedy that may be needed will be selected as part of the OU-2 investigation. The ongoing investigation has determined that area residents obtain their water from the City of East St. Louis or Alorton, depending on the location of the home, and that residents are not drinking groundwater from near the site. The Illinois American Water Company currently provides water to the City of East St. Louis from the Mississippi River. Because of heavy industrial use historically, the City of East St. Louis previously enacted a city-wide ordinance preventing the use of groundwater for drinking purposes.

- ***Is soil in the neighborhood around the site contaminated? Were people who played on the baseball fields next to the site exposed to site contaminants?***

Site investigations to date have not shown that materials were deposited off-site in measurable amounts. One incidence of windblown red dust was documented as blowing off-site towards 38th Street in January 2014. This was prior to the initiation of remedy construction activities, which began in March 2014. Additional off-site soil investigations will be completed as needed to determine the nature and extent of contamination during the next phase of the site-wide remedy (OU-2). The OU-1 cover remedy will prevent any future exposure to the waste and prevent contaminants from blowing off-site.

Additionally, Alcoa performed a risk analysis using the site sampling data as part of the remedy selection process for the first phase of the site-wide remedy (OU-1). A site-wide risk assessment is commonly performed to determine if there may be health impacts from site contamination on and near the site. One of the components of this risk analysis looked at short term exposure for recreational players at the baseball fields. There was no information available on who played on the fields and for how long they played there, but this risk assessment used on-site concentrations of contaminants to over-estimate the exposure risk from the area of the baseball fields. This risk analysis, reviewed and approved by U.S. EPA and Illinois EPA, indicated that risks to youth ballplayers and short-term visitors fell below the U.S. EPA’s level of concern for both carcinogenic (cancer) and non-carcinogenic (non-cancer) health effects.

Nature and extent of contamination for the rest of the site will be determined during the next phase of the project, OU-2. This will involve sampling to determine if or how far the contamination has migrated. Sampling will begin on-site and, if needed, continue off-site until the extent of contamination has been determined. This data will be used to ultimately select a remedy for the remaining OU-2 portion of the site.

- *Can or will a health survey be conducted for residents of the area?*

Several health studies have been conducted in the area over time and are summarized below.

The Agency for Toxic Substances and Disease Registry (ATSDR) and the Illinois Department of Health (IDPH) have evaluated the results of available 1999-2000 city-wide sampling for lead in soils. The results of this sampling data indicate that levels of lead near the Alcoa site are not higher than levels of lead in soil in other parts of the City. One area near the site identified as a residential area “hot spot” for lead was located next to a highly contaminated old plating facility. This site was cleaned up between 2002 and 2003 and included 21 contaminated lots nearby.

Blood lead results, obtained from the IDPH, for children tested each year from 1995-2013 within the zip codes adjacent to the Alcoa site, were reviewed. These data show that although the numbers of children with blood lead levels above the U.S. Centers for Disease Control (CDC) reference level (10 micrograms per deciliter until 2012, when it was lowered to 5 micrograms per deciliter) have consistently decreased since 1995, the numbers of children being tested each year has also decreased. For privacy reasons, the IDPH does not share the addresses of tested children. As a result, ATSDR cannot evaluate the following: 1) whether children with higher blood lead levels lived closer to the Alcoa site, and 2) if children with higher blood lead levels lived at addresses with elevated lead levels in soil.

ATSDR has also evaluated limited cancer incidence data available for zip codes surrounding the Alcoa site. Data regarding cancer incidence are compiled by the Illinois State Cancer Registry, which calculates age-adjusted cancer incidence rates for each county in the State of Illinois. Rates cannot be calculated by zip code, town, or community because the population sizes and number of cancers diagnosed each year are generally too small to calculate statistically reliable rates. Because of this, the Illinois State Cancer Registry only provides the raw numbers of cancer cases diagnosed among people living in each zip code within 5-year periods. The actual numbers of cancers diagnosed within each 5-year period within any zip code are small, in many cases, the number is less than 5 or 10 for various cancer types. Because of this, comparing raw numbers of cancer cases by zip code does not provide meaningful results, and, as a result, cannot be reliably used to tell whether or not the numbers of cancer diagnoses within the zip codes surrounding the Alcoa site are higher than what would be expected.

Many people do not realize how common cancer is in the United States. Based on recent trends in cancer incidence, it is estimated that 1 out of every 2 men (50%) and 1 out of every 3 women (33%) will develop some sort of cancer during their lives from a variety of causes (American Cancer Society 2013). This is what is commonly referred to as “background” cancer risk. When cancer rates are compared, they are compared to this background cancer risk, to evaluate whether the incidence of cancer in a geographic area is higher than what would be expected. This is how EPA compares calculated site risk to these background cancer risks.

When only raw numbers or cancer counts are available to ATSDR, it is impossible to make this type of comparison. In spite of these limitations, the numbers of cancers diagnosed over the past 20 years within the zip codes surrounding the Alcoa site do not suggest that there is an excess of any type of cancer. The most frequently diagnosed cancers in the area were cancer of the lung, prostate, female breast, and colon, which are the most frequently diagnosed cancers across the U.S. population and are typically related to multiple causes, such as diet, heredity, and smoking.

- ***Why does nothing live on “red hill”?***

The “red hill” was an area of bauxite residue piles from Alcoa’s processing of ores to extract aluminum. The main types of waste materials in this area are “red mud,” “brown mud” and gypsum. Gypsum berms surround the red and brown mud disposal areas. The first part of the remedy was to build a cover in the middle of the site over the “red hill” area. In building the cover, the red hill area had to be “grubbed” to remove the existing vegetation, and then graded properly before the soil cover remedy could be installed.

Many areas in OU-1 were, in fact, already heavily vegetated. However, some areas of the “red hill” did not support plant growth because the waste materials that were on the surface, particularly the gypsum, were nearly rock-like, and did not provide the conditions necessary for plants to establish themselves. Some areas also did not support plant life because of high pH conditions, which does not provide the proper nutrients that most plants require to grow properly.

These “red hills” are now covered by the two-foot clean soil vegetated cover and will be reseeded as necessary in spring 2016 to ensure that they remain fully vegetated. This cover will be maintained by Alcoa over the long term so that erosion is minimized and exposure to any site waste is eliminated.

- ***Will the roads be repaired after the remedy has been built?***

Some of the temporary roads that were built on-site will be maintained as part of the long-term maintenance of the remedy. Any excessive dust caused by trucks bringing the clean soil onto the site was promptly addressed during the 2014-2015 construction season. To date, there has been no reported damage to Missouri Avenue or 29th Street. The stoplight that was installed on Missouri Avenue is temporary and will be removed upon project completion.

- ***What is the time frame for the remedy for the rest of the site?***

As of December 2015, the first phase of remedy completion is substantially complete. Approximately 4-6 weeks of work remain to complete the construction; this will commence in early spring 2016, as weather conditions allow. The investigation for the rest of the site (OU-2) is ongoing and will most likely be completed in 2017, followed by remedy selection, and eventual design and construction of the remedy. (See the North Alcoa Site Community Involvement Plan for a description of the process.)

- ***Are there any training programs for jobs at the site during this period?***

U.S.EPA has no jobs training program in place for the Alcoa Site. However, EPA requested that Alcoa's contractor utilize as many local workers as possible during the construction of the soil cover remedy. As a result, the majority of the on-site labor utilized local workers for the Operable Unit 1 construction, both as laborers and as truck drivers. Workers require special training to work on-site, which was the primary hiring criteria used by Alcoa's general contractor.

- ***Questions about Frank Holten State Park: Is Whispering Willow Lake contaminated? Is the soil around the lake contaminated? Are fish in the lake contaminated?***

The Alcoa OU-1 environmental investigations determined that Frank Holten State Park was not being impacted by the site as it is neither in the path of the prevailing winds, nor does surface water or groundwater flow to it. However, the Illinois Department of Public Health has two fish advisories applied to the lakes at the park limiting the number of meals of predator fish to one per week:

- 1) There is a state-wide advisory due to the potential concentrations of mercury in predator fish all over the state, and
 - 2) There is an advisory for the lakes at Frank Holten State Park, due to PCB contamination (PCBs are not contaminants of concern at the North Alcoa site). Similar PCB advisories have also been issued for over 40 other lakes and rivers in Illinois.
- **Questions about the solar farm planned for the site after the remedies are in place include: *Who will develop it? Who will own it? Who will sell the electricity? Will there be utility rate increases if the Solar Farm is installed on the site? Will there be any training programs to teach area residents how to take care of the solar panels?***

Details have not been finalized for the solar project and ultimately an agreement between the City, the developer and Ameren would contain this information. Any installed solar panels would be maintained under that agreement. While the Agencies support the project, U.S. EPA and Illinois EPA will not be involved in those discussions; please contact the City of East St. Louis to register any concerns or comments you may have about the solar farm project. These discussions remain ongoing.

- ***Concerns were expressed about water running off the site during flood events across Lake Drive to the north.***

There have been no flooding issues in the area of Lake Drive resulting from the construction at the site. The site remedy cover includes provisions to manage stormwater on-site so it cannot impact the surrounding area. There was one incident of water and bauxite residue running off the southwest portion of the site in April 2014, resulting from the clearing of site vegetation. An immediate cleanup was performed by Alcoa's contractor and overseen by USEPA and Illinois EPA.

Recent flooding events (December 2015) were due to record rainfall in the entire region over a three-day period. The majority of the water occurred as a result of area storm sewers being unable to accommodate this rainfall. The Agencies have been in frequent contact with area residents who expressed concerns about flooding and have also been in communication with City officials about this issue.

At U.S. EPA's request, the City and Alcoa have mobilized several times to pump excess water from the areas near 29th and Louisiana Blvd into the nearby storm sewer. The City agreed to perform clean out of the catch basins along Louisiana Blvd in an effort to help with potential flooding issues in the future. The City has also agreed to monitor this area to determine if additional steps are needed after heavy rain events. Residents are encouraged to contact Michael Wagner, City Attorney-Clayborne, Sabo and Wagner (618-239-0187) with any issues or concerns.

- ***Concerns were expressed that waste is currently being brought onto the property.***

The only materials that have been brought on-site during this remedy construction have been clean soil that was used to build the cover, and other materials (rock, fencing, etc.) required by the design for the OU-1 remedy. The trucks that bring soil to the site then leave the site empty.

- ***Questions have been asked about the two large stockpiles of material that were previously stored under metal coverings in the southeast corner of the site (current location of Progress Rail).***

These stockpiles of fluorspar (used in the aluminum refining process) were created by the Defense Logistics Agency. They were sold to various parties around 2005 or 2006. They were located on the Koppers property, which is not part of the historical Alcoa operations area. The fluorspar was stockpiled as raw material which had not yet undergone any sort of chemical processing.