

Lindsay Light, Kerr-McGee, and Thorium—6th Grade

A Primary Source Document

Digital Mini-Kit

presented by West Chicago City Museum

The purpose of this kit is to supplement your regular curriculum with fun activities that reinforce the concepts taught, while at the same time exposing students to the history of West Chicago.

Worksheets can be projected on a screen or wall to serve as *whole-class* activities. They can also be printed out in limited numbers for *small-group work* or given to each individual child for *independent work*. Contact Maggie Capettini at MuseumEd@westchicago.org with questions or comments.

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Lindsay Light & Chemical Company

Lindsay Light & Chemical Company started in Chicago in 1902, producing **mantles** for gas lights used in homes, businesses and city streets before the use of electricity.

A gaslight mantle is a small fabric bag infused with thorium or other metal nitrate that fits over the gas source. The heat from the gas flame burns off the mantle fabric leaving a fine metal mesh that glows brightly. The Lindsay Light Co. used the radioactive chemical thorium nitrate to manufacture their gaslight mantles.

This Gas Mantle Brightens a Million Homes

A million gas consumers know that the maximum of light, the maximum of wear and the ideal light for the eyes are found together only in the marvelous

Lindsay Tungsten Gas Mantle

It is made of a specially thick and strong fibre, specially treated; and because of this fact it will outlast several ordinary mantles. It will not shrink up with use—a common mantle fault.

Its light is soft and pleasant—the most sensitive eyes will not be affected by it—yet the illumination is extraordinarily powerful.

Although we make the best mantles possible for the price, to retail at fifteen, twenty and twenty-five cents, we say frankly that the Lindsay Tungsten at thirty cents represents real mantle economy.

Get just one mantle from your dealer and prove it for yourself.

You Get the Beautiful Free Light, Too

To introduce the Lindsay Tungsten Mantle as quickly as possible into another million homes, we are offering a beautiful Lindsay No. 5 light, complete, with artistically etched globe and Lindsay Tungsten Mantle, as a premium for the lids from twelve Lindsay Tungsten Mantle boxes and ten cents to cover postage and packing. Many people are buying the mantles in dozen lots so as to get their first light at once.

DEALERS—If not supplied with Lindsay Tungsten Gas Mantles, write us at once. We want the local dealer everywhere to get his proper share of this enormous business.

Lindsay Light Company
NEW YORK CHICAGO

Most good dealers can supply the Lindsay Tungsten Gas Mantle. If yours can't, send your order direct, mentioning his name. Lindsay Mantles fit all burners. (12)



In 1931, Lindsay Light relocated to West Chicago, taking over a site that was used by **Union Tool**, a well-drilling equipment manufacturer.



In group pose are 39 members of the once well-known Union Tool Company Band. The company manufactured oil well drilling machines in the plant now occupied by Kerr-McGee Chemical Corp. Those identified, top row, are: Edgar E. Belding, William Elsenius. Middle row: a Mr. Smith, Harlow H. Belding, John Kline, Ray Jorgens. Bottom row:

Phil Treudt, Ray Dieter, Jim Walker and Ray Miller. Band leader was Pete Adrix. Trombonists are George Birsen, Fred Fletcher, Charles Sleep and Joe Murphy. In cornet section are Frank Gloss, Mel Heyn and Mac Wescott. Drummers are Al Finnell, Allison Bradley and Bill Morrison.

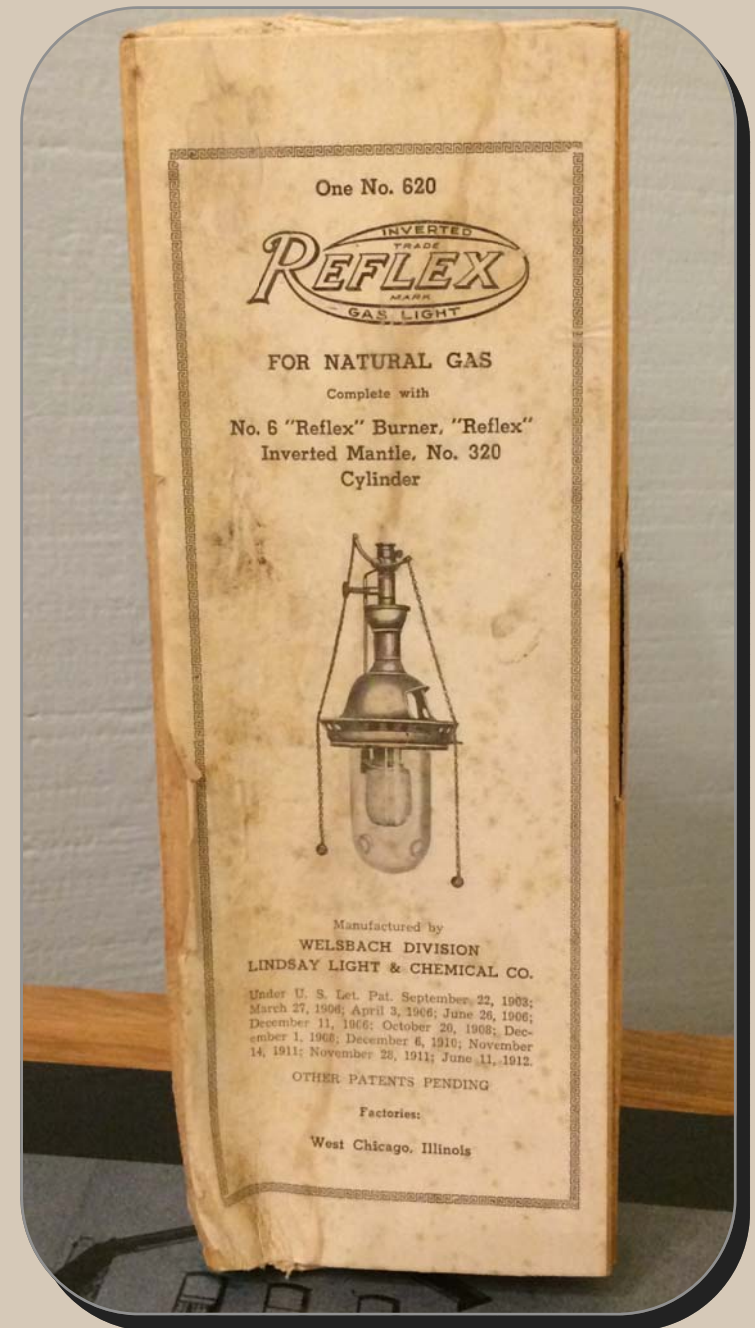


This gas mantle light was manufactured by the Lindsay Light & Chemical Company in West Chicago.

It is now an archived object in the collection at West Chicago City Museum.

All of the lights in the Museum's collection have been tested and are determined to be safe.

This light is packed in the box with newspaper dating from 1949, used as cushioning for the lamp.



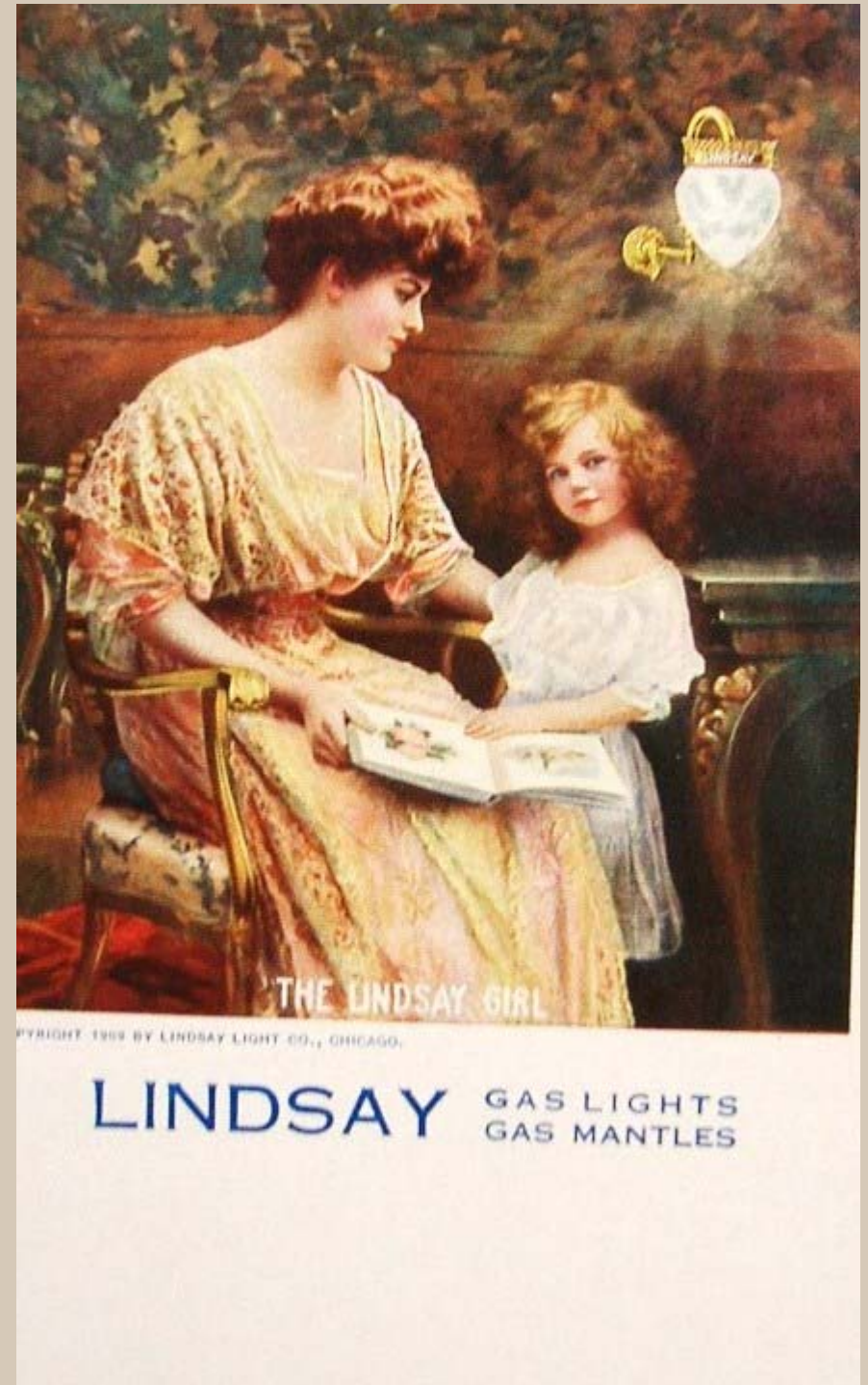
LINDSAY GAS LIGHTS & MANTLES

Around 1932, Lindsay Light Company began working with rare earth chemicals, such as thorium nitrate, which was used in the production of the atomic bomb.

During the production of the mantles, waste materials, including **thorium ore residues**, were disposed of on-site and in other locations throughout West Chicago.

Facility employees and residents were allowed to take contaminated "filler dirt" from the factory to use in landscaping and other projects.

The company also disposed of the contaminated dirt at City Park, now known as Reed-Kepler Park.



A Lawsuit —and— Kerr-McGee Buys Lindsay Light

In 1943, a West Chicago alderman brought a lawsuit against Lindsay Light to force the company to disclose its use of certain chemicals it was producing. However, the Court ruled in favor of the company. Lindsay Light did not have to disclose this information.

Lindsay merged with American Potash in 1958, and was bought by Kerr-McGee in 1967. The last thorium contract Kerr-McGee had with the government ended in 1963. However, thorium and rare earth products were produced until 1973 when the facility was closed.



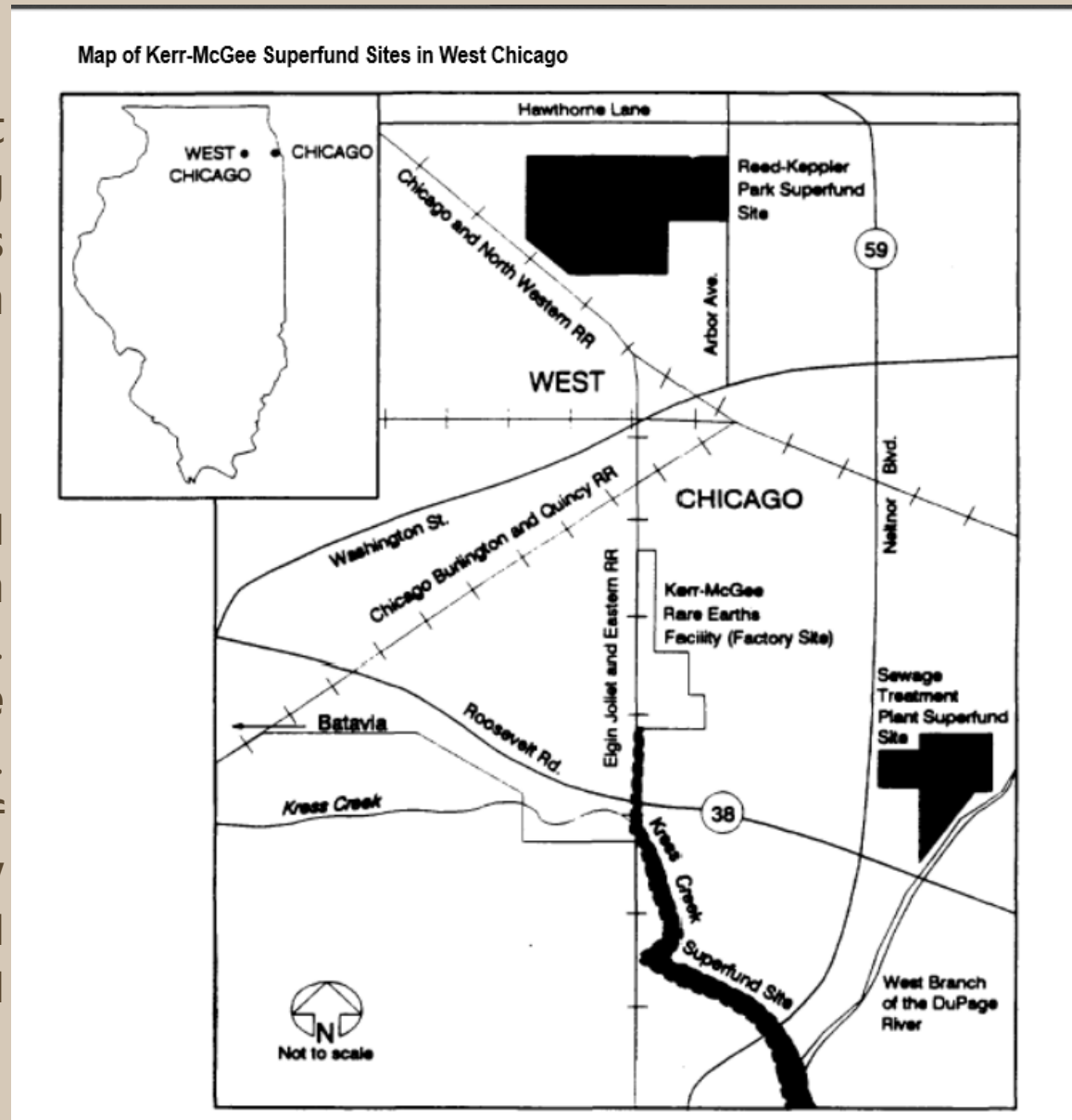
Image of Kerr-McGee factory site from "Illinois wants U.S. help to clean up West Chicago site", *Daily Herald* (online) 10/22/2014

Caption: As long ago as World War II, the site was used to produce the radioactive rare-earth element thorium for federal atomic energy and defense programs. *File Photo*

Another Lawsuit

In 1976, a lawsuit was filed against Kerr-McGee for the off-site dumping in different areas of town. This launched an investigation by both state and federal agencies.

In 1977, Kerr-McGee agreed to fund clean-up at the factory site for an estimated cost of \$2 million. Between 1979 and 1989, Kerr-McGee dismantled facilities in West Chicago. This was done with the approval of the United States Nuclear Regulatory Commission after a lawsuit was filed by the Illinois Attorney General and the West Chicago City Council.



Starting in 1984, off-site cleanup began in areas of town that had been contaminated; over 100 properties were cleaned. In 1989, City Council passed an ordinance to prohibit the movement of radioactive materials in town, to prevent further contamination.

Community Activism—Citizens Making a Difference



The Thorium Action Group (TAG), a community activist organization, was founded in 1990 to raise awareness and ensure that all radioactive waste was removed from West Chicago. After numerous lawsuits were filed, starting in 1994, decommission activities began to further clean up the sites and haul away waste materials. In 1997, a class-action lawsuit was filed by residents against Kerr-McGee in which settlement was reached.

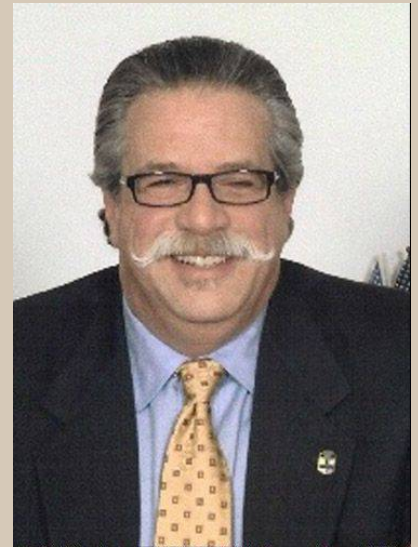


Members of the Thorium Action Group protested on March 6, 1990, at the former Kerr-McGee factory site in West Chicago, where radioactive thorium was produced. Prior to this week's five billion dollar settlement, the city forged its own agreement with the federal government to ensure cleanup of the former factory site and other contaminated areas. *Daily Herald file photo*

Clean-Up and Community Support

Substantial clean-up was completed in the 1990s, meeting governmental approval. The City and the Environmental Protection Agency continue to work together to monitor and ensure that all sites are deemed safe. In 2007, Mayor Kwasman established a joint team with the EPA and the State of Illinois to ensure all local concerns were being heard. As recent as 2012, cleanup was performed in areas along the DuPage River.

Mike Kwasman served as West Chicago's mayor from 2006 until his death in 2012.



Mayor Ruben Pineda has continued the fight to get West Chicago cleaned up. And on November 10, 2015, the last rail car filled with contaminated soil left town. The Mayor was quoted in Daily Herald article, "It was a long fight for our community," Pineda said. "Thank God for all the entities that backed us up, that made sure they didn't turn West Chicago into a ghost town."

West Chicago has received support from other lawmakers, community leaders, organizations, and citizens as well throughout this fight.

ABC 7 News Item on Congressman Peter Roskam touring Kerr-McGee Clean-Up Site in 2014
<https://roskam.house.gov/media-center/article/icymi-cleaning-up-contaminated-soil-in-west-chicago>



WEST CHICAGO, IL.: Over 675 residential properties needed to be cleaned, according to the EPA. Some, such as this house, had to be temporarily lifted to remove contaminated soil. The residential clean-up is essentially all done.

Illinois Emergency Management Agency

Environmental Protection Agency's Overview of West Chicago Superfund Sites

(Taken from <http://www3.epa.gov/region5/cleanup/kerrmcgee/background.htm>, Last updated on 8/3/2011)

There are **four** Kerr-McGee Superfund sites in the West Chicago, IL, area that were contaminated by radioactive thorium waste material. The waste was generated by a processing facility (now closed and owned by the Kerr-McGee Chemical Corporation) that operated in West Chicago between 1932 and 1973.

- Kerr-McGee Kress Creek/West Branch DuPage River Site
- Kerr-McGee Sewage Treatment Plant Site
- Kerr-McGee Residential Areas Superfund Site
- Kerr-McGee Reed-Keppler Park Superfund Site

Sand-like waste materials known as **mill tailings** were stored at the facility. The mill tailings were available as free fill material from the 1930s through the 1950s and were used throughout the West Chicago area for landscaping projects and to fill low-lying areas. It was later determined that the radioactive material was potentially hazardous.

Wastes from the Kerr-McGee facility also entered Kress Creek through a storm sewer, contaminating sediments (river mud) in the creek and the West Branch DuPage River.

Over many years, thorium-contaminated soil particles from the Kerr-McGee facility entered a nearby storm sewer during rainstorms and traveled to Kress Creek. From there the pollution moved downstream in the creek and into the West Branch DuPage River, settling into the creek and river sediment along the way. The thorium was also deposited onto floodplains during high water periods. The source of the pollution has been controlled so no more thorium is entering the creek.

The sewage treatment plant became contaminated when radioactive thorium residuals from the Kerr-McGee facility were hauled to the treatment facility and used as fill material. Some of the contamination then entered the West Branch DuPage River adjacent to the sewage treatment plant property due to erosion and surface water runoff during rainstorms.

Radioactivity surveys performed in the West Chicago area by the Nuclear Regulatory Commission and EPA resulted in EPA placing the sewage treatment plant and Kress Creek sites on the Agency's National Priorities List in 1990 and 1991. The National Priorities List is a roster of Superfund sites nationwide. In 1993 EPA began looking at the Kress Creek and sewage treatment plant sites, a process known as a remedial investigation. In 1997, as a result of negotiations between Kerr-McGee and the city of West Chicago, Kerr-McGee began more extensive investigations at the sites. EPA suspended its work at the sites in 1998 at the request of Kerr-McGee and the city. Kerr-McGee continued its extensive site investigation work for several years while continuing to negotiate with the city and other local entities over the cleanups. As a result of the extensive studies and negotiations, Kerr-McGee and the local communities agreed on a cleanup proposal and presented it to EPA. Kerr-McGee then officially took over the remedial investigation and feasibility study from EPA in a written agreement reached in late 2003. The remedial investigation and feasibility study reports prepared by Kerr-McGee include data collected by both EPA and Kerr-McGee.

No cleanup actions have occurred at the Kress Creek site, but some residential properties along the creek were cleaned up in the mid-1990s as part of a separate residential cleanup program. Cleanup actions have also occurred at the upland portion of the sewage treatment plant site. During 1986 and 1987, Kerr-McGee removed about 57,000 cubic yards of contaminated material from the sewage treatment plant as part of a voluntary cleanup action. No cleanup was done along the river banks or in the river, however. In late 2003, Kerr-McGee reached a written agreement with EPA to remove another 4,000 cubic yards of contamination from the sewage treatment plant that was not addressed during the earlier cleanup. This cleanup started in October 2003 and is expected to be completed this spring. When the removal is completed, radiation levels at the upland portion of the sewage treatment plant site will be well within safe levels. Contamination still remains, however, at the river portion of the site.

(End of EPA Background Information)

News | updated: 11/11/2015 5:05 PM

Last shipment of contaminated soil leaves West Chicago





The final rail cars filled with contaminated materials from the former Kerr-McGee factory site in West Chicago have been shipped out of town.

Daniel White | Staff Photographer



Jessica Cilella

After more than 30 years and \$1.2 billion worth of cleanup work, the final rail cars filled with contaminated materials from the former Kerr-McGee factory site in West Chicago have been shipped out of town.

Mayor Ruben Pineda said the occasion is cause for celebration. On Tuesday, he gathered with officials from the Environmental Protection Agency, the Department of Energy, Weston Solutions, DuPage County and other organizations that have helped with removing thousands of pounds of thorium waste produced by the factory. They watched the rail cars head to Utah, where the materials will be buried in the desert.

"It was a long fight for our community," Pineda said. "Thank God for all the entities that backed us up, that made sure they didn't turn West Chicago into a ghost town."

Thorium was produced on the site for decades, long before it was determined to cause an increase in cancer. It was used in the gaslight mantle production process by Lindsay Light and Chemical Co., which opened on the site in 1931, and in the early development of the atomic bomb.

Kerr-McGee took over the factory in 1967 and operated in West Chicago until 1973. The factory made a sandlike material containing thorium that was spread throughout the city when it was used for landscaping and building projects on hundreds of residential properties, Reed-Keppler Park and a wastewater treatment plant. Thorium waste also ended up in nearby Kress Creek and the West Branch of the DuPage River through a storm sewer.

Kerr-McGee and its spinoff, Tronox Inc., paid for most of the cleanup until Tronox filed for bankruptcy protection in 2009. The Department of Energy earmarked federal funding to the cleanup efforts through the Title X program, which reimburses communities that participated in the atomic energy program. But an environmental response trust that has been overseeing the work to get Title X money hasn't received any funding since 2008.

Although the soil is gone, city officials said they are waiting for the federal government to provide about \$32 million to resolve issues with the contaminated groundwater at the site.

"We still have a lot of work to do out there," Pineda said. "If we were to get (the \$32 million), we could finish the project relatively quickly and (the factory site) would turn into a beautiful park."

Pineda said the government has plans to provide a portion of the \$32 million this year, but he isn't sure if the money will come through.

DuPage County Board Chairman Dan Cronin said he also hopes the cleanup stays on course.

"While we still have a long way to go to finish the river restoration and implement a final groundwater remedy, this is the end of a very long chapter in the cleanup work at West Chicago," he said during a board meeting Tuesday.

- Daily Herald staff writer Robert Sanchez contributed to this report.

Article Comments (17)

A Legacy of Affected Health

In a Facebook group called We-Go People, there is often mention of Kerr-McGee. Current and former West Chicago citizens of many ages recall their memories of this factory, as well as the poor health conditions that they attribute to their exposure to radiation. Their voices are shared here anonymously. Many hundreds of personal accounts are shared; these are just a sampling of the stories.

My family lived in Wheaton/Winfield area and my grandparents lived in WC. My father worked for American Potash in the 1950's and as I recall he was part of the Argonne study. My grandmother told me about the free "amazing dirt" how everyone was going there to get some for their gardens. Supposedly it made the tomatoes huge, so a lot of people helped themselves. Both my parents died from cancer. Those whom ignore history are doomed to repeat it.

When I was in grade school my brother worked at Lindsey Lights during the summer. We lived two blocks away, 1 house away from the high school. We ran all over that part of town in the summer bare foot. My mother had a garden, I don't remember her bringing soil from somewhere else. But my brother would come home with his clothes filthy and walk around our house and, I am sure, get whatever was on his clothes on our floors and furniture. I have had chronic health problems my whole life, including a primary immune deficiency. My body quit making immuno-globulins. I wonder if there is a connection to the pollution near where we lived.

Everybody has cancer cells in their body some are just active and others aren't. Kerr McGee was not secretive with us, my parents yard was removed 4 times and the house put on stilts and the foundation was removed 2 times, they did everything they could do for them. I know because I was there the whole time overseeing what they were doing, because of my parents age they wanted me there. There are many people that live in that area that are as healthy as ever.

I lived on George street & one summer we woke up to seeing all the tops of our trees burned-some chemical had been emitted during the night & killed the trees it landed on!

I can name about 25 people I knew that had weird cancers and died within a 10 mile radius.

One of my Mom ' friends told me she remembered working downtown, maybe at the grocery store, and seeing the trucks drive thru town with open backs and dust flying everywhere. This could have been late 40's early 50's. In the 70's, my dad, ..., put a list together of people who lived around the factory who died from cancer. Supposedly he turned this into the EPA or some other official. Many of those listed did not have life style choices, like smoking, to explain their lung cancers or other supposedly lifestyle induced cancers/illnesses. I read in one of the reports that lifestyle choices, blue collar town (indicating uneducated, poor, bad habits) had more to do with the cancers. I found that to be offensive and dismissive on the part of the report writers and a way for them to absolve Kerr-McGee from any responsibility for illnesses. Good luck with your story! I posted how even in the 60's they still giving away dirt to be used as topsoil. Made the grass grow green and thick but all had to be dug up later. I believe your writing about this is important as pressure is put on our regulatory agencies to let companies pollute without recourse. Gutting funding for the EPA and putting industry insiders in leading positions will have long term consequences for our country and our children's children. We seem to have short term memory loss when it comes to these issues. We are met with a constant barrage of how these regulations are choking business and all I can say is look at Beijing and how polluted they have become.

I remember waking up as a child with all our windows open and all our fruit trees and gardens were burnt. The civil defense went to all the surrounding neighborhoods and told us not to walk on the grass or eat anything out of our garden. So many cancers with-in a 2 mile radius of Linsdsey Light (Kerr McGee)

I know for a fact that that the people on the south east side of Factory was given fresh water for many years. Because the water was not safe. I know of lots of birth defects. Many years ago the factory gave away back-fill for many homes and they dumped a huge amount of it at Reed Park. So Many people on Ann st. suffered with all types of cancer, I have skin cancer. The scary part is how close the factory was so close to the High school.

My Mom -- who was born in the house, ... just east of the high school on Joliet -- talked of having a job in her teens or 20s (I'm figuring that was the late 30' or perhaps early 40's) at Linsey Lights. She painted letters on labels and small signs that were designed to reflect light ("glow in the dark"). She said that she and others frequently licked their delicate paint brushes to get a point on them. We all shuddered at the thought by the 60s. My sisters, ... Amy ...'s mother, and brothers an I all grew up in that house. So far only my father, who died at 61 or 62, has had cancer -- but he also smoked. My mother died in her mid-sixties of heart disease.

I used to walk thru it every day as my job as a watch man the night the roof fell I had just made my rounds it scared the hell out of me and all that dust I was breathing was not good we had to wear radioactive badges every day when I found out how bad it was I quit my job I'm 54 and still kicking I guess I'm just lucky to be alive

Mt. Thorium is not harmless, but it is nowhere near as harmful as some of these comments seem to imply. This is not Silkwood. On the other hand, something caused those higher rates of cancer in WC. They did not, and still do not, affect my family or any of my neices, nephews, my daughter, etc. We used to play on that stupid mountain. It was just an unusual and cool place to explore. My brother Doug even fell into the acid pit one time. He just went home, changed his clothes, and is now 66 going on 67 and is fine, more or less. Kerr-McGee is not the bad guy here. It was old man Lindsey. But of course he's long gone. I wonder what he died of? Hmmm....

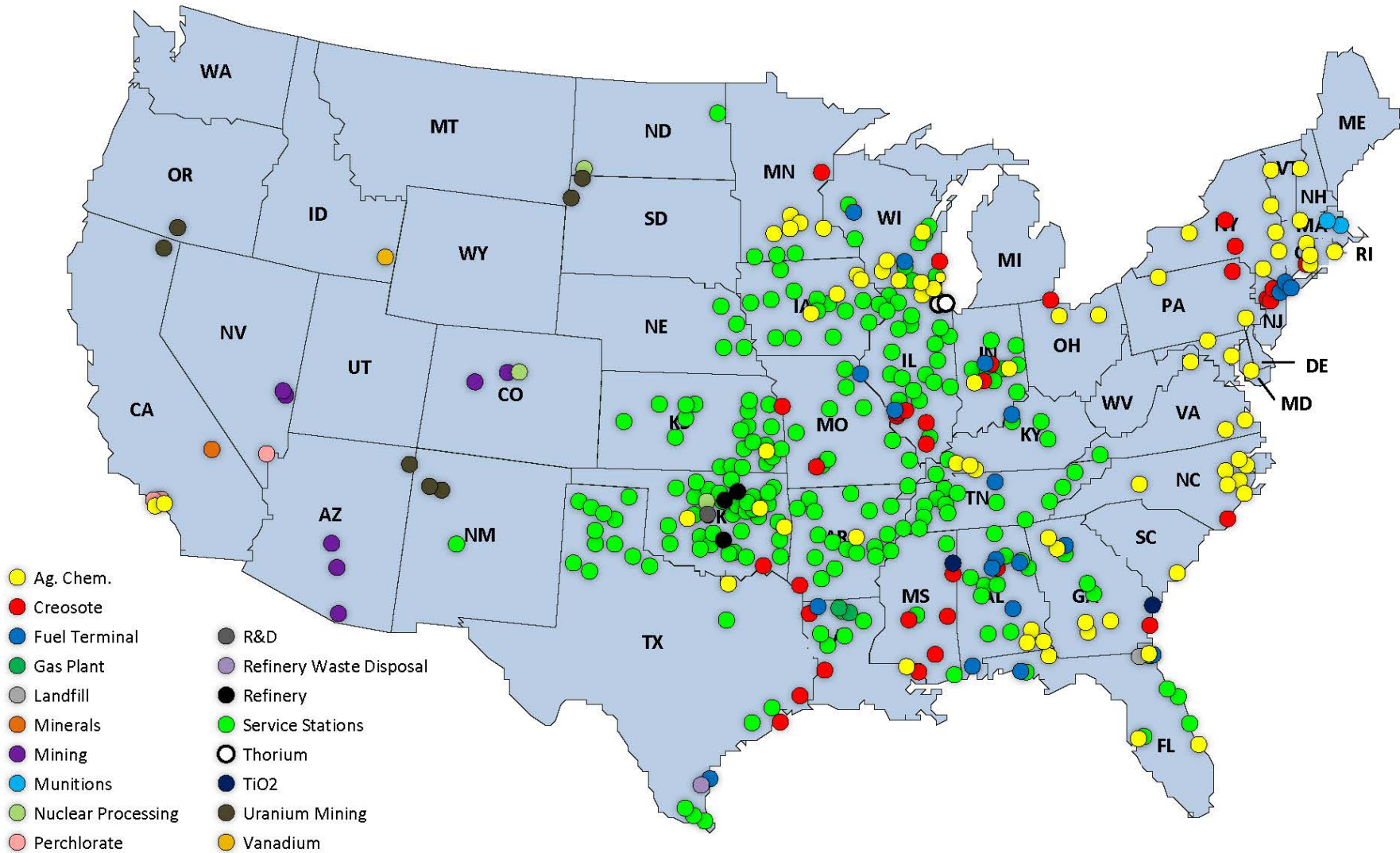
We lived in the high lake area, unincorporated WC. My father suspected the land fill used in our new construction street was from Kerr McKee and thorium may have contaminated our well water. We lost several people to cancer on our street in the 1970s. Both of my parents died from cancer to

I lived on the corner of Brown & Factory st both my parents died of cancer but you have to prove it was caused from Kerr McGee, that is tough to do. My Grandmother lived on Pomeroy & Factory and lived to be 100 years old, you can't blame everything on Kerr McGee!

My Mother was born and raised In West Chicago. She too remembered as a young adult when home owners were taking the top soil for their gardens because ANYTHING grew so much better. She later met my father who did some of the hauling of soil to Reed-Kepler Park. During her career with the City Of West Chicago she said she saw the over view maps of the city that were taken to see how bad the thorium was. She described it as the city "lit up like a Christmas tree." As a side note, both my patents passed from cancer.

As kids we used to play on the giant hill in the back of the plant we used to call it radiation Hill it was a pile of rocks below it was a Pond and when you threw rocks into it it would bubble up big old green bubbles and they stored them yellow barrels in the back there where they were marked with the red radiation signs a lot of Best friends are now dead from cancers

Kerr-McGee Environmental Sites



Source: Plaintiff's Rule 1006 Summary; GPX0001 at 1

Teacher Resources

EPA Web Site—West Chicago Superfund Site Information

<http://www3.epa.gov/region5/cleanup/kerrmcgee/index.htm>

Includes site updates, fact sheets, technical documents, and more. Seems to be out of date, as there is nothing about the last rail car being taken out of town in 2015.

Superfund Site Info—Reed-Kepler Park

http://cumulis.epa.gov/supercpad/cursites/dsp_ssppSiteData1.cfm?id=0500761#Status

Superfund Site Info—Sewage Treatment Plant

<http://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0500763>

Superfund Site Info—Residential Areas

<http://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0500762>

Superfund Site Info—Kress Creek/West Branch DuPage River

<http://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0500760>

Chicago Reader Article

<http://www.chicagoreader.com/chicago/assault-on-mount-thorium/Content?oid=877745>

LA Times Article—good example of loaded language

http://articles.latimes.com/1993-03-21/news/mn-13479_1_west-chicago

Standards

NextGen Science Standards

Influence of Science, Engineering, and Technology on Society and the Natural World

All human activity draws on natural resources and has both short and long-term consequences, positive as well as negative, for the health of people and the natural environment. (MS-ETS1-1)

The uses of technologies and limitations on their use are driven by individual or societal needs, desires, and values; by the findings of scientific research; and by differences in such factors as climate, natural resources, and economic conditions. (MS-ETS1-1)

Illinois Learning Standards—Social Science

16.A.3b Make inferences about historical events and eras using historical maps and other historical sources.

16.A.3c Identify the differences between historical fact and interpretation.

D. Understand the roles and influences of individuals and interest groups in the political systems of Illinois, the United States and other nations.

Common Core State Standards

CCSS.ELA-Literacy.RH.6-8.2

Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.

CCSS.ELA-Literacy.RH.6-8.6

Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).

CCSS.ELA-Literacy.RH.6-8.7

Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.

Kerr-McGee loses one to W. Chicago

By Alyce Bartlett
for The Beacon-News

WEST CHICAGO — The city has won the first battle in its war to stop Kerr-McGee Corp. from permanently storing low-level radioactive thorium waste at the company's closed West Chicago plant.

U.S. District Judge James Holderman on Friday denied Kerr-McGee's request for a temporary restraining order that would keep West Chicago officials from further delaying the storage plans.

The ruling is expected to prevent Kerr-McGee from beginning digging here until at least March 15.

The city on Tuesday issued a stop-work order that requires Kerr-McGee to obtain a work permit before burying the waste in a 40-foot mound on the 27-acre site in the middle of a residential neighborhood.

Mayor Paul Netzel said it was a nice feeling to win the opening battle.

"The judge is expecting us to follow the line of the law," he said. "We will, and hope others will follow. We won this skirmish, but we still have a long fight ahead."

Holderman, however, did not rule on whether Kerr-McGee needed the permit from the city.

Instead he set another hearing for March 15 at 10:30 a.m. in his courtroom. Holderman ruled since there was no deadline for Kerr-McGee to begin burying the waste, both parties should wait until the Nuclear Regulatory Commission (NRC) decides whether the state can assume jurisdiction of the site.

If the state gets control, steps may be taken to move the waste to a less-populated area.

The NRC decision is expected within 10 days.

Assistant Illinois Attorney General Douglas Rathe said if the state loses its appeal to the NRC, it will appeal to the federal district court in Washington, D.C.

Kerr-McGee attorney Peter Nickles complained the company's regular crew currently cannot go to the site to work for fear they will be arrested by West Chicago police. West Chicago special attorney Joe Karaganis agreed employees who normally work at the site should be allowed to continue their normal jobs. Kerr-McGee will submit a letter detailing the normal work hours at the plant.

Nickles accused the city and state of using stalling tactics and subverting the NRC's authority. The NRC issued a license Feb. 23 allowing Kerr-McGee to store more than 500,000 cubic yards of low-level waste in the city.

Karaganis said Kerr-McGee has dramatically

Kerr-McGee / A5

Kerr-McGee

from A1

understated the risks of radiation when dust is stirred up during excavation.

In the meantime, members of the Thorium Action Group (TAG), a citizens' group opposing storage of the waste in the city, conducted a phone picket Friday to stop incoming and outgoing phone calls at the NRC. TAG members called Kenneth Carr, head of the NRC, between

8 and 9 a.m. and 12 and 1 p.m.

They asked for Carr, and when told he was unavailable, asked to speak to his secretary. They left a brief message that stated they would like a call back, gave a brief explanation for the call and asked the NRC to overturn their decision to allow Kerr-McGee to bury low-level radioactive waste in the middle of West Chicago.

Beacon News
Mar. 10, 1990

Judge stalls movement of thorium

Mayor Netzel says city set for long fight

By Alyce Bartlett
Journal staff

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Daily Journal
Mar. 10, 1990

W. Chicago rally assails dump plan

By Patricia M. Szymczak

In terms of old-fashioned, grassroots, let 'em know what's on your mind politics, West Chicago had it all Saturday.

It had mothers, fathers and children. American flags and signs that said flat out that the people of West Chicago aren't pleased with what Kerr-McGee Chemical Corp. has in mind for them: the construction of a low-level nuclear-waste dump.

It had dogs on leashes, a folk singer with a guitar, politicians, cameras and reporters scribbling notes.

The rain that poured down at noon did little to dampen the enthusiasm of the crowd of about 500. They opened umbrellas and donned plastic parkas and, after a brief rally at West Chicago High School, started marching to the gates of Kerr-McGee.

"This is bizarre," state Sen. Robert Kustra (R-Park Ridge), a candidate for lieutenant governor, said along the way. "I did not realize how this place is located in



Tribune photo by John Dziekan

Protesters march in the rain to the Kerr-McGee plant in West Chicago to denounce a plan to

let the chemical manufacturing firm build a low-level nuclear-waste dump there.

the middle of a neighborhood. You couldn't build a gas station here."

Saturday's protest was the fourth and biggest of West Chicago's Thorium Action Group

(TAG), which began organizing in January when it became apparent that the U.S. Atomic Safety and Licensing Board, the judicial arm of the Nuclear Regulatory Commission, was going to allow con-

struction of the dump.

Kerr-McGee plans to bury 587,000 tons of sandy dirt contaminated with radioactive thorium and chemical wastes over

See Protest, pg. 2

Protest

Continued from page 1

a 27-acre area, 4 1/2 stories deep. And it may add 143,000 tons, depending on the outcome of cases before the U.S. District Court of Appeals in Washington and in Du Page County Circuit Court. The material resulted from the manufacture of thorium for lighting elements of gas lamps and from materials used in early atomic bomb research. The plant closed in 1973.

Demonstrators Saturday parked a pick-up truck between a two-story pile of some of the sandy waste and a pile of twisted metal, also contaminated, that has been awaiting burial since the Kerr-McGee factory was demolished in the early 1980s.

Speakers took turns climbing on the truck-bed and used bullhorns to shout their viewpoints. They led the crowd in songs and cheers, many to tunes from the anti-Vietnam war demonstrations of the 1960s, while a color guard of Vietnam veterans stood holding the flags of the United States, State of Illinois and the City of West Chicago.

"This community is starting to come together and the momentum is changing in favor of West Chicago," said Mayor Paul Netzel.

Christopher Dunn, general counsel for U.S. Sen. Paul Simon (D-Ill.) said Simon is lobbying the NRC to revoke its permit and is asking the White House to intervene.

"What's important is that the public interest be put first," said Dunn. "The NRC has forgotten the mission it had, which was to protect the public and not the industry it regulates."

"We want to see this waste tagged and shipped out of here," Dunn said as the crowd broke into wild cheers and chanted, "Hell no, we won't glow."

"There is no halfway stand on this issue," added Kustra. "Kerr-McGee is wrong and the citizens of this city are right." Kustra pledged his support as well as that of Secretary of State Jim Edgar, a GOP candidate for governor and Kustra's running mate.

Then Donna Baer, wife of Edgar's primary challenger, Steven Baer, got her turn.

"I'm six months pregnant and I'm nervous about standing here" within a few feet of the contaminated earth and metal piles, she said, calling the situation "an affront to families."

Chic Trib

Mar. 11, 1980



Tribune photo by Michael Fryer

Gov. James Thompson stops outside the West Chicago City Hall Wednesday to talk with opponents of Kerr-McGee Chemical Corp.'s plan to bury radioactive waste in the city.

State, county sue Kerr-McGee

By Nancy Ryan
and Patricia M. Szymczak

A Du Page County judge on Wednesday told Kerr-McGee Chemical Corp. not to begin construction of its radioactive waste dump in West Chicago until hearings are held in a lawsuit seeking to force the company to apply for permits from the Illinois Environmental Protection Agency.

Judge John Darrah issued the temporary restraining order two hours after Gov. James Thompson held a boisterous news conference at the West Chicago City Hall to discuss the lawsuit that Atty. Gen. Neil Hartigan and Du Page County State's Atty. James Ryan filed Wednesday in Du Page County Circuit Court.

"Our view is that the attempted action of Kerr-McGee ... A—is wrong; B—is illegal; and

C—is certainly in violation of the environmental laws of this state," Thompson said at the news conference as some 20 opponents to the burial of the radioactive waste in West Chicago cheered the legal action.

Ryan, who is running in the GOP primary for Hartigan's job, was at the news conference. Representing Hartigan, a Democrat running in the gubernatorial contest, was Assistant Atty. Gen. Joseph Claps.

Also attending were state Sen. Doris Karpel (R-Roselle) and state Rep. Donald Hensel (R-West Chicago), who for years have worked in the General Assembly to oppose Kerr-McGee's plan to bury the waste.

West Chicago Mayor Paul Netzel and several aldermen represented the city as did citizens involved in TAG, a grass-roots

organization whose acronym stands for Thorium Action Group. Before Thompson's speech, TAG members demonstrated outside City Hall, carrying signs and chanting, "Keep our air and water clean."

TAG is planning to demonstrate Thursday at the Dirksen Federal Building where, at 10:30 a.m., Kerr-McGee will be facing a similar permit battle with West Chicago in U.S. District Court.

The city is arguing that the company needs a building permit before it begins work. Joseph Karaganis, West Chicago's attorney, filed affidavits on Wednesday that cited other nuclear facilities that have applied for such permits from local governments.

Kerr-McGee has argued that because it is regulated by the

See Waste, pg. 16

Chicago Tribune March 15, 1980

Paul

Waste

Continued from page 1

U.S. Nuclear Regulatory Commission, federal law preempts local ordinances.

But what the state and West Chicago want most right now is time. Their legal strategy is designed to keep Kerr-McGee from breaking ground until the NRC hands regulatory control of the site to the state, a move likely to occur in May.

If Illinois gets control, it intends to force Kerr-McGee to ship the waste to Utah at a considerably greater cost.

The lawsuit filed Wednesday by the state and Du Page County argues that because Illinois has the right to enforce the federal Clean Air and Water Acts, construction permits must be obtained. That's because drinking water and the air may become chemically polluted during the construction process, according to the state.

"We have not seen what allegations have been asserted and certainly we would not comment until we've had an opportunity to review the papers," Kerr-McGee spokesman Myron Cunningham said.

Karaganis, speaking at the news conference, said, "The state's ac-

tion was clearly warranted because without question Kerr-McGee is clearly in violation of state law."

The state EPA and Hartigan's office conducted a poll of nuclear facilities throughout the state on procedures they followed for similar disposals, according to Karaganis. "We find time and time again ... every one of those facilities have applied for construction permits," he said.

The state and county lawsuit addresses contaminants that are not radioactive because the waste at West Chicago also contains, among other chemicals, arsenic, lead, mercury, cadmium and cyanide, according to Karaganis. The NRC regulates the radioactive material, largely thorium.

The dump is a "new emission source" for those contaminants and could allow them to be released into the air, particularly during the construction phase, and, consequently, the Illinois Pollution Control Board requires a state environmental permit before construction, the lawsuit charges.

Kerr-McGee's disposal plan admits that waste water from the site will seep into underground aquifers and from there into nearby Kress Creek and the West Branch of the Du Page River, according to Thompson. As a result, Kerr-McGee needs an additional construction permit from the

state, the lawsuit states.

Attorneys for Kerr-McGee were notified of the hearing on the temporary restraining order Wednesday afternoon and were not able to appear in court by the time Judge Darrah issued the order.

Darrah said, "The plaintiffs will suffer irreparable injury or there is the potential" of such harm without the order, which stays in effect until a March 23 hearing on a preliminary or permanent injunction.

Darrah also ordered Kerr-McGee to allow the state and Du Page County to inspect the site to make sure the company is in compliance with his order.

"It's not a question of if it will be contaminated but when it will be contaminated," Karaganis said of Du Page County's drinking water.

For 10 years, the federal EPA and the NRC have argued over whether Kerr-McGee should be allowed to build a radioactive dump within a few hundred feet of single-family homes above an underground aquifer. Nowhere else in the nation has the federal government allowed the deliberate burial of such types of wastes near so populous an area.

The material is the result of 40 years of production at the West Chicago site of thorium for the lighting element of gaslights and materials used in early research on the atomic bomb.

Chic Trib. 3/15/90

WEST CHICAGO CITY MUSEUM
132 MAIN STREET
WEST CHICAGO, IL 60185

Kerr-McGee gives in

Company will remove thorium

by Jeff Smith

After 16 years and seemingly countless court battles, "Goliath" conceded victory Tuesday. And West Chicago is already looking to the days when thorium and Kerr-McGee will be a faint memory.

"We came an incredibly further distance than we anticipated," city legal counsel Joseph Karaganis told a relieved and emotional gathering of TAG (Thorium Action Group) members, city officials and residents at a press conference in the City Council Chambers Tuesday night to announce Kerr-McGee's agreement to move its half-million tons of thorium mill tailings out of the city.

Negotiations between the Oklahoma-based company and a group of politicians, including State Sen. Doris Karpel (R-Roselle), State Rep. Donald Hensel (R-West Chicago), the Illinois Department of Nuclear Safety and Mayor Paul Netzel came to a dramatic head at a day-long meeting Tuesday in Springfield. Faced with the threat of legislation, proposed by Karpel and Hensel, that would require Kerr-McGee to pay \$10 per cubic foot of radioactive material stored at its Factory Street plant, or up to \$130 million a year, the company decided to cut its losses and acquiesce to a five-point plan for removal.

"I think when Mr. (Tom) McDaniel (Kerr-McGee's senior vice president) thought what would be best for the stockholders, he concluded this is it," said Second Ward Alderman Colin Perry.

"I don't like Kerr-McGee," TAG co-founder Rich Kassanits said. "It was just a matter of bookkeeping for Kerr-McGee—the bottom line. It's cheaper to get it out of town than to keep it in town, which is all right, as long as it's out of here."

Kerr-McGee officials could not be reached for comment.

In the five-point agreement, Kerr-McGee acknowledges the city is no longer considered a permanent disposal site, promises to begin collecting funds and searching for an alternative site and jointly consents to end all pending federal and state litigation in a court order. That decree also addresses off-site conditions as well.

At the news conference, Netzel thanked the many players who joined the arduous fight against the company: among them Karpel, Hensel, U.S. Rep. Dennis Hastert (R-Aurora) and congressional aide Scott Palmer, TAG, the legal counsel, the City Council, former Gov. Jim Thompson and first-year elect Jim Edgar.

And whether "lucky," as Karaganis described the city's break in negotiations,

or not, Netzel said the united front formed by the city, state and national officials who attended Tuesday's meeting made a significant impression on McDaniel. "We all got together and agreed our impetus was to take a unified stance—get the thorium out of West Chicago," Netzel said.

The news and long-awaited celebration at City Hall was slightly tempered by the realization that the actual removal may take up to four to five years to materialize, if the company drags its feet as opponents expect. "When Tom puts that first shovelful of dirt on that train car, that's when I click my heels," Netzel said.

The city will keep legal heat on Kerr-McGee throughout the last hurdles leading to removal, and TAG vows to remain on the offensive until the thorium leaves city limits. "We've just cut off three to four years off what we were looking at (in court battles)," Kassanits said.

And without the stigma of thorium, "West Chicago has a chance now at a bright future," he said.

Prior to Karpel's and Hensel's proposed legislation, Kerr-McGee foes were expecting a long legal battle. Although the federal Nuclear Regulatory Commission last October awarded regulatory control of the closed thorium processing facility to the state, Kerr-McGee had appealed that decision.

W.C. Press

May 16, 1991 Pg. 1

WeGo set to rebuild its image

Residents welcome news of thorium removal

By Dan McCullough
STAFF WRITER

West Chicago

The city will have to pay about \$250,000 in clean-up costs when removal of radioactive materials from an abandoned factory site here begins.

The city, which already has spent more than \$1 million on legal fees and cleanup costs, must pay the additional money as part of an agreement reached Tuesday with officials from Kerr-McGee Chemical Corp.

But many residents and city officials say it will be worth it.

After more than 11 years of legal wrangling between government and company officials, Kerr-McGee's decision to remove nearly 13 million cubic feet of radioactive mill tailings and contaminated soil came as a surprise to many here.

"We're trying to make progress and all of a sudden in one day we made that progress," said Tom Merrion, a city council member since 1987.

Mayor Paul Netzel said Kerr-McGee had been winning the legal battle for 10 of the past 11 years. But when bulldozers started building a permanent storage facility for the radioactive materials last year, people became aroused and the tide was turned.

"We got to the eleventh hour and the twelfth hour and we put our foot down and things began to change," he said.

The material will be taken from Kerr-McGee's shuttered facility at Factory and Ann streets to another site still to be determined. Within the next 12 months, the company will provide the state with financial assurances "to demonstrate good faith in the search for a disposal site other than West Chicago," according to the agreement.

City administrator Don Foster said the cleanup, which should begin within 18 months to three years, will cost more than \$110 million. Kerr-McGee will pick up the lion's share of the tab with assistance from the federal government.

Ron Adams, an employee of the George J. Bell Seed Co. in West Chicago and former president of

Officials

◆ From page 1

the city's chamber of commerce, said the controversy has cost West Chicago even more money in lost business.

"There are a lot of companies that have looked at alternate sites," he said.

Paul Tague, West Chicago's director of economic development, agreed.

"It has had an impact," he said. "There are a number of industrial parks that have had deals going on. The issue would flare up in the paper, and those prospective tenants would reconsider."

Tague said he has estimated the city's monetary loss has been "in the millions."

Corporate and government attorneys will meet Monday to begin drafting a court decree to make the agreement legally binding.

Kerr-McGee officials met at the company's Oklahoma City headquarters Wednesday to begin searching for a permanent dump site for the materials, Netzel said.

Dan Balocca, of the Thorium Action Group (TAG), said the company's decision may help people feel better about living and working in West Chicago.

"We have always suffered from an image problem," he said. "We've always suffered from undervalued housing, compared to Winfield or Wheaton."

"Home sales have been hindered" as a result of the Kerr-McGee controversy, Balocca said.

"There is quite a lot of progress that can be made in terms of housing values and community pride."

"The stigma is going to be removed along with the thorium," said Merrion.

"It's the best thing that could happen to West Chicago right now," said Rita Baden, executive director of the chamber of commerce. "This has been a real black eye to West Chicago. It seemed like every few years West Chicago would be going real well and all of a sudden there would be an article about Kerr-McGee and everybody would be up in arms again."

"I think it's scared quite a few people from living here," said Baden.

Adams, a veteran of years of battles with Kerr-McGee, said he'll believe the materials are to be removed when he sees the first trainload leave town.

"People will be pleased once it's gone," he said. "Right now, there's really no change in what's going on."

Under the agreement, the company also promised to address other contaminated sites throughout the city.

TAG's Balocca said the watchdog organization intends to continue its high-pressure campaign to get Kerr-McGee to remove the material.

"There is still work to be done," he said. "They have to get a license for the removal, and there will have to be public hearings."

◆ See Officials on page 4

West Chicago hailed for thorium victory

By Michael Martinez

It was a day for the people of West Chicago to be honored by government officials Friday for their Liliputian role in overcoming the corporate power of an industrial giant.

Joining a retinue of other officials, Gov. Jim Edgar visited the closed factory of Kerr-McGee Chemical Corp. in West Chicago, where 150 rallying residents were praised for their persistent demands that the company remove radioactive waste material from the site.

After resisting those demands to clean up the old factory for more than a decade, Kerr-McGee agreed this week to move 13 million cubic feet of thorium-contaminated dirt and construction debris from the disassembled plant to an undetermined, out-of-state depository. The company also indicated it would clean up residents' contaminated yards.

"This is a good example of what can happen when citizens get involved," Edgar told the rally. Referring to an old saying that the squeaky wheel gets the grease, he added, "You didn't squeak. You roared, and congratulations."

West Chicago Mayor Paul Netzel said: "Doggone it. We won! We won! ... We have beaten Kerr-McGee in probably the toughest game West Chicago has ever seen."

Against a backdrop of radioactive soil and a contaminated heap of rusting steel, Edgar told residents they must remain vigilant while a final cleanup agreement is worked

out over the coming months.

Dan Balocca, co-founder of the Thorium Action Group, the residents organization that was a vehicle for the grass-roots movement, agreed and said that "quite a task" still lies ahead.

But he couldn't resist sharing the euphoria of the victory.

"Persistence pays off, doesn't it?" Balocca said. "We have finally prevailed."

Balocca said later in an interview that TAG activists were average homeowners committed to expelling Kerr-McGee's radioactive material from their community. He said other residents groups preceded his but that Kerr-McGee waged a battle of attrition over the years, wearing out activists in each group until they dissolved. But another group always rose to fill the void, and TAG was the latest, he said.

What finally persuaded Kerr-McGee to clean up the site, Edgar said, was possible state legislation that would have required the company to pay an annual fee of \$10 a cubic foot of thorium buried in West Chicago, or \$130 million a year. Netzel estimated cleanup costs for Kerr-McGee were \$100 million to \$140 million.

Sen. Doris Karpel (R-Roselle), who sponsored the legislation with Rep. Donald Hensel, a Republican of West Chicago, also credited teamwork among elected local, state, and federal officials.

"This is the way the system is really supposed to work," she told residents.

Chicago Tribune

May 18, 1991

The citizens win in West Chicago

Some residents of West Chicago may be forgiven their skepticism at the news that Kerr-McGee Chemical Corp. at last has agreed to ship its mountain of radioactive waste out of town. It took almost 20 years of legal and administrative battling with the company, and numerous setbacks, to get to this day.

But the settlement announced last Tuesday by company, state and local officials seems to be in good faith, a satisfactory end to an unsatisfactory saga.

During the years of wrangling, one fact was indisputable: The middle of a residential community was no place for 13 million cubic feet of radioactive waste.

It should have been removed long ago, after the factory that produced it was closed in 1973, instead of lying as a monument to costly litigation and glacial bureaucracy.

Kerr-McGee inherited the problem from two previous owners who used thorium for atomic energy research and the production of gas lamps. But it was Kerr-McGee that fought to keep the waste where it was, because of the difficulty of finding a disposal site and the great cost of moving the material.

Though it fought on, the company effectively lost the battle last fall when the Illinois Department of Nuclear Safety won from the U.S. Nuclear Regulatory Commission the right to regulate the site. The commission earlier had given Kerr-McGee permission to bury the debris on-site; the department promised a much sterner standard.

Under the new agreement, the company will find a disposal site out of state and pay all cleanup costs. In return, all federal and state litigation will be dropped.

This story had many heroes for the people of West Chicago, among them former Gov. James Thompson, Mayors A. Eugene Kennels and Paul Netzel, U.S. Rep. J. Dennis Hastert, state Rep. Don Hensel and state Sen. Doris Karpel.

The local legislators, in fact, probably tipped the balance by sponsoring legislation to assess Kerr-McGee \$10 a year for each cubic foot of waste.

But no one was more valiant than the citizens of West Chicago, who through their Thorium Action Group sustained unrelenting public pressure. It proved that the ordinary folks do sometimes win one.

Chicago Tribune

5/20/91

Chicago Tribune

May 20, 1991

Inside IEMA

Monthly Newsletter

Illinois Emergency Management Agency

December 2015

From IEMA Director James K. Joseph

The tragic attacks in Paris on Nov. 13 highlight the critical need for all of us in the response community to remain vigilant and continue to refine our skills and plans so that we are well-prepared for all types of hazards, both natural and man-made. While from a homeland security perspective state and federal partners are working around the clock, as emergency managers it is important that we work to create resilient communities able to recover from any incident.

To that effect, I applaud our colleagues in Madison and DeWitt counties for their commitment to planning and training.

Madison County Emergency Management Agency recently hosted a regional communications-focused exercise. This exercise brought together statewide capabilities and, for the first time, exercised an airborne repeater thanks to our partners at the Civil Air Patrol. My thanks to Director Larry Ringer and his staff for tackling this challenging emergency response issue and hosting a successful regional exercise. Read more about the exercise on page 3.

I also want to recognize DeWitt County EMA Coordinator Teresa Barnett for her exceptional leadership dealing simultaneously with a FEMA-graded nuclear power plant exercise and a real-life emergency. I spoke with Teresa after this event to commend her deft handling of this difficult situation. During the call, she stressed that it truly was a team effort made possible by 19 other staff and county officers. Spoken like a true leader! Read more about the hostile action-based exercise in this issue.

Larry and Teresa are just two of the countless professionals dedicated to public safety in Illinois. I want to take this opportunity to thank each of you for your commitment and service to the residents of your community and this state.

Warmest holiday greetings from my family to yours. God bless!



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West Chicago Thorium Cleanup Milestone Observed

A major milestone in a two-decades-long radioactive material cleanup project in West Chicago and DuPage County was observed during November. Director Joseph and IEMA personnel involved in the massive cleanup in West Chicago and DuPage County joined local officials and the West Chicago Environmental Response Trust (WCERT) to recognize the elimination of contaminated soil.

Between 1932 and 1973, thorium and rare earth compounds were processed at a 43-acre factory site in West Chicago. The Lindsey Light Company (later known as Kerr-McGee) used the materials to produce lantern mantels for gaslights originally used for street and home lighting and later for camping lanterns.

In addition, after World War II the facility produced thorium for the Strategic and Critical Materials Stockpiling Act under contract via the Atomic Energy Commission, which was a predecessor to both the Nuclear Regulatory Commission and the Department of Energy.

The process generated more than one million tons of radioactively contaminated waste materials. Much of

this material was buried on the factory site, within several feet of homes and businesses. This resulted in contamination of on-site soils and groundwater.

In the early days of the facility's operations, hazards related to the waste materials weren't fully understood. As a result, large quantities of the contaminated waste were taken from the site and used as fill dirt at hundreds of homes and city-owned properties throughout the community.

Activities focused on removal of thorium began in 1994. The U.S. Environmental Protection Agency had authority over cleanup efforts at contaminated properties outside the factory site borders. This included remediation of Kress Creek and a branch of the DuPage River, Reed-Keppler Park and more than 700 residential properties. IEMA provided crucial support to these projects by identifying contaminated properties, conducting verification surveys, collecting and testing soil samples and ensuring the protection of people living and working near the cleanups.

The Illinois Department of Nuclear Safety (now part of IEMA) became the regulatory entity for the radioactive

(continued on page 7)



Current and former IEMA employees involved in the West Chicago project joined local officials, WCERT and U.S. EPA representatives at the former factory site on Nov. 10 to mark the elimination of contaminated soil. The group included Jamie Lock (left), project engineer with DuPage County Stormwater Management, and West Chicago Mayor Ruben Pineda (right).

material license pertaining to the Rare Earths Facility on Nov. 1, 1990. When a trust was established in 2011, the state of Illinois became a beneficiary to the trust. The WCERT is responsible for managing cleanup in accordance with the conditions of their Illinois radioactive material license.

To date, combined off-site and on-site cleanup activities have cost more than \$1.2 billion, and 70 percent of this cleanup project has been privately funded. Due to the thorium stockpiling efforts on behalf of the federal government, the U.S. Department of Energy also has provided funds for this cleanup project under the Title X Uranium/Thorium Reimbursement Program.

The majority of on-site cleanup activities have been completed, with remediation of contaminated groundwater the remaining cleanup project. IEMA and the WCERT will be focused on the contaminated groundwater in coming years, and cleanup will occur upon receipt of Title X reimbursements. Institutional controls are in place to prevent public health impacts from the contaminated groundwater plume.

By the numbers:

- Thorium contamination removed from approximately 700 residential properties
- 1.6 million tons of radioactive waste shipped for out-of-state disposal
- \$1.2 billion spent for cleanup of the factory site, residential properties, Redd-Keppler Park and the DuPage River
- 16,000 rail cars used to ship material for disposal
- 8 miles of Kress Creek and the DuPage River cleaned up
- 385 million gallons of water treated to remove contamination
- 345,000 tons of material processed through the Physical Separation Facility (reduced the number of rail car shipments by about 3,400 and saved millions of dollars)

Radioactive Materials Program Undergoes Federal Review

The U.S. Nuclear Regulatory Commission (NRC) conducted a routine periodic Integrated Materials Performance and Evaluation Program (IMPEP) review for IEMA's Bureau of Radiation Safety on Nov. 10. The review was conducted by three NRC staff from the agency's Region III office in Lisle, Illinois, and addressed nine performance indicators.

The IMPEP team's preliminary findings determined the Illinois program is adequate to protect public health and safety and is compatible with the NRC's program. The review team made no recommendations in regard to program performance by the Illinois Agreement State Program during this review. The review team indicated that the Illinois Agreement State Program remains a very active, strong and stable program with excellent management support.

During the review, NRC and IEMA staff also discussed national policy on security, proposed rulemakings, medical events and staffing/budgetary concerns at the state and federal levels.

Based on the positive results of this interim review, the



Kay Foster, chief of the Bureau of Nuclear Facility Safety, explained the state's remote monitoring system to NRC representatives following the IMPEP review.

next full review of the Illinois Agreement State Program will take place in 2018. The previous full review was conducted in 2013, at which time the state received a one-year extension for having two consecutive IMPEP reviews with all indicators found satisfactory.