Personal Summary of meeting of Dec. 29, 2014

The Pipeline going thru our town is the Bridgeton Landfills, Force Main Project.

To the best of my recollection from my notes of the details of the meeting, I provide the following:

This is a 7.5 mile pipeline 8" in diameter laid 3-8' below the surface. The frost line in our area is designated at 30". Designed and constructed per msd requirements. From Bridgeton landfill to hwy I-170/rock rd., where it will flow into the 15" gravity main to Bissell. I believe it was called maybe an HTP steel pipe that would be heat fused together so there would be no seams. Brian Power was the Environmental Manager who presented before the board. Permits are thru MSD/MODOT/MDNR. We were presented with a 9 pic power point and taught the following:

The landfill where the leachate comes from is separate from the known Westlake landfill by footage. Prior to the pipeline republic has used 240-340 frack tanks on site to hold and transport the leachate to the Bissell plant. The pipeline will take 35 trucks daily off the roads that carried this product to Bissell. In the case of the Bridgeton Landfill they have been unable to determine what caused/started the leachate reaction to speed up. They have invested about 55 million in a pretreatment facility. This facility will clean the leachate before it flows thru the pipeline. 1st it goes thru a equalization and aeration tank, then a clarification process, then a microorganism removal process, finally an ultrafiltration stage. The system has 2 backup generators to prevent loss of electricity during an outage. All discharge waste water meets msd issued discharge permits.

http://mediad.publicbroadcasting.net/p/kwmu/files/Bridgeton_Landfill_Permit_Septembe r_1_2014.pdf

Permits, results and tests found on: www.bridgetonlandfill.com

When the pipeline is completed MSD will inspect the pipeline, at this point the pipeline becomes the responsibility of MSD, not Republic. MSD is a public utility. To me this means we the public take on the responsibility of this pipeline through msd.

There is no earthquake protection on the pipeline, it is expected to hold up.

I felt this NPR reporter did a great job on this article in summarizing the meeting.

http://news.stlpublicradio.org/post/st-ann-officialsvoice-concern-about-potential-risks-bridgetonlandfill-wastewater-pipeline

St. Ann Officials Voice Concern About Potential Risks Of Bridgeton Landfill Wastewater Pipeline

<u>E-mail</u>

4 Comments

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BY VÉRONIQUE LACAPRA



Republic Services spent \$55 million to build this leachate pretreatment plant at the Bridgeton Landfill, in order to bring the wastewater into compliance with its disposal permit from the Metropolitan St. Louis Sewer District.

Credit Missouri Department of Natural Resources

Bridgeton Landfill owner Republic Services is building a pipeline to carry wastewater from inside the landfill to a sewer line leading to the Bissell Point sewage treatment plant in north St. Louis.

The 7.5-mile-long pipeline will run along St. Charles Rock Road just south of Lambert-St. Louis International airport, through St. Ann and several other north St. Louis County communities.

That has some area residents worried about the potential for toxic contamination.

At a meeting on Monday night, the mayor of St. Ann and its Board of Aldermen spent close to 40 minutes questioning two Bridgeton Landfill representatives about the pipeline project.

Although more than two dozen members of the public attended, they weren't allowed to ask questions.

St. Ann Alderwoman <u>Amy Poelker</u>, who requested the meeting, read a <u>long list of</u> <u>concerns</u> raised by her constituents. Their questions ranged from whether the wastewater – or leachate, as it's known – would be tested for radioactivity, to whether Republic Services would be responsible for any potential leaks.



The pretreatment plant at the Bridgeton Landfill includes four, 1-million gallon storage tanks.

Credit Missouri Department of Natural Resources

Bridgeton Landfill Environmental Manager Brian Power said that the leachate has been tested for radioactive contamination on a quarterly basis for the past 10 years and has come up clean.

He also said the wastewater would be pretreated at the landfill to remove contaminants per Metropolitan St. Louis Sewer District requirements. "Before it's ever discharged, it has to meet <u>MSD permit discharge standards</u>," Power said. "So the liquid that's going into the pipeline is no different than any other industrial waste."

Power said the landfill is covering all the costs of building the pipeline, which is expected to be completed by late January.

After that, the MSD will inspect it, then take over all responsibility for its operation and maintenance. "If anything was to happen, MSD would respond, and they would take appropriate action as they would with any other issue that they would have," Power said. "That's the way that it's worked out."

In other words, since the leachate pipeline will run into an existing sewer line, it will be treated like any other pipe in the MSD system.

Speaking after the meeting, St. Ann resident Doug Clemons said he was not reassured by what Power and his colleague had to say. He said he was concerned that without close oversight and testing by the MSD, the leachate in the pipeline could end up contaminated.

"One thing is radioactive waste materials, <u>which are present in the groundwater</u>underneath this landfill," Clemons said. "I find it hard to believe if they're making their way to the groundwater, they're not going to make their way to the leachate." Clemons chairs the West Lake Landfill Community Action Group, which represents community members, workers and business owners to the U.S. Environmental Protection Agency concerning issues related to radioactive waste at the landfill.



The new leachate pipeline will be made of 8-inch diameter HDPE plastic, and will run for 7.5 miles from the Bridgeton Landfill to the intersection of St. Charles Rock Road and I-170.

Credit Missouri Department of Natural Resources

Here's a little background about wastewater at the Bridgeton and West Lake landfills:

What is leachate and how much does the Bridgeton Landfill produce?

Leachate is wastewater that builds up inside the landfill from the decomposition of waste. That wastewater also includes any rain that has soaked into the landfill and landfill gas condensate.

The Metropolitan St. Louis Sewer District currently receives all the leachate produced by the Bridgeton Landfill at one of two local sewage treatment plants, under conditions set by <u>an</u> <u>agreement</u> and <u>discharge permit</u>.

According to the MSD, it receives between 200,000 and 300,000 gallons of treated leachate a day from the Bridgeton Landfill, or 1.4 to 2.1 million gallons each week.

The subsurface fire that has been smoldering at the Bridgton Landfill since late 2010 has increased the volume of leachate produced there by about 50,000 gallons a day. It has also increased the concentration of certain contaminants such as benzene (see next section).

What is in the leachate at the Bridgeton Landfill?

Leachate contains toxic substances dissolved from the landfill waste or produced through chemical reactions inside the landfill.

Those can include heavy metals, volatile and semi-volatile organic compounds, ammonia, oil and grease.

<u>As recently as March 2014</u>, landfill owner Republic Services said that wastewater from the Bridgeton Landfill typically includes 1,000 to 1,500 μ g/L (ppb) of benzene – a known carcinogen.

In June 2013, the MSD stopped accepting leachate from the Bridgeton Landfill due to almost a year of permit violations related to "a significant increase in the discharge of biochemical oxygen demand (BOD), chemical oxygen demand (COD), and total suspended solids (TSS)."



Before the pretreatment plant went online, Republic Services used more than 200 tanker trucks to haul the leachate to offsite treatment plants, including some in other states and Canada.

Credit Missouri Department of Natural Resources

And the MSD <u>later expressed concern</u> that the leachate could be contaminated with dioxin, gross alpha radiation, gross beta radiation, gross gamma radiation (as cesium-137), radium-226 or radium-228.

In an email to St. Louis Public Radio, Russ Knocke, a spokesman for Republic Services, said that "leachate has been monitored under the permit with MSD for specific radiological components (uranium, thorium, radium, alpha, beta and gamma) even prior to initiating pretreatment at the site. Testing has always confirmed that these radiological components in leachate have been below permit limits, and that no treatment is necessary."

The MSD confirmed this testing is required under Republic Services' <u>current permit</u> for wastewater discharge from the Bridgeton Landfill, (see section C.3, "radioactive discharge reporting requirements"). According to the permit, Republic Services can discharge up to the following amounts of radioactive materials per year: five curies of hydrogen-3; one curie of carbon-14, and one curie of all other radioactive materials combined.

What is Republic Services doing with the leachate from the Bridgeton Landfill?

Early in 2013, Republic Services began construction of a leachate pretreatment plant at the landfill, which began 24-hour operations in November of this year. The facility includes four, 1-million gallon storage and pretreatment tanks and a 316,000 gallon aeration tank.

Knocke described the pretreatment as a multi-step process "that has been developed to treat the leachate to meet the St. Louis Metropolitan Sewer District's pretreatment requirements." He said elements of the treatment include "aeration for volatile compounds, settlement of metals and solids, and bacterial digestion of organic compounds."

Here are some more details from Knocke about the treatment process:

"Materials that are volatilized are treated through the leachate pretreatment plant's thermal oxidizer units. Materials that are settled out of the leachate are pressed into a dry solid (with liquids going back into the treatment plant) and the solids are then profiled and disposed of as permitted. The treated leachate is then disposed of to wastewater treatment plants as approved under permits. All leachate is treated. Depending on plant operations, some leachate may not go through the full treatment plant and may be combined with treated leachate for disposal to MSD, in accordance with the MSD permit – meeting all MSD standards."

Those standards are spelled out in <u>Republic Services' permit</u> for the Bridgeton Landfill on pp.2-5 and 12-13.

The MSD said that most of the treated leachate from the Bridgeton Landfill is currently being discharged to its Missouri Wastewater Treatment Facility, "via an existing pump

station and force main which is mixed with other municipal sewage." That leachate generally amounts to 100,000 to 300,000 gallons per day.

Treated leachate is also hauled via tanker truck to the MSD's Bissell Point Water Treatment Facility "on an as needed basis." The new sewer line discussed at Monday's meeting in St. Ann is intended to eliminate the need for hauling leachate by truck from the Bridgeton Landfill.

What about leachate from the West Lake Landfill?

The West Lake Landfill is adjacent to, and just north of, the Bridgeton Landfill. It contains World War II-era uranium processing residues illegally dumped there in 1973.

The landfill is under the regulatory authority of the U.S. Environmental Protection as a Superfund site.

According to Republic Services, no leachate is collected or disposed of from the West Lake Landfill.

Follow Véronique LaCapra on Twitter: <u>@KWMUScience</u>

These questions seen below I got from the residents and general public from a facebook event post and email to ensure the public was communicated with and had an opportunity to get their questions answered. To the best of my recollection these are the answers below.

Concerns, questions for Republic?

Will they test for Alpha, beta, and gamma, how frequently, and will results be posted with the other labs? Yes, quarterly, not sure if posted on www.bridgetonlandfill.com

Will you publish your detailed permit for

discharge? Stated would have to check (NPR reporter promised to sunshine request it and put it in her article-she did) <u>http://news.stlpublicradio.org/post/st-ann-officials-voice-concern-about-potential-risks-bridgeton-landfill-wastewater-pipeline</u>

http://mediad.publicbroadcasting.net/p/kwmu/files/Bridgeton_Landfill_Permit_Sep tember_1_2014.pdf

Are there any automatic system monitors in the pipeline--alarms for detection of gases, pressure, radiation, blockage, leaks? Unable to answer but did not think so

CAN I GET A DETAILED TESTING SCHEDULE BE PUBLISHED. www.bridgetonlandfill.com

How do they test for cracks, collapse, and blockage?

MSD will be responsible for this as they will inspect the pipeline once it is done and take over the maintenance of it.

There are almost 2000 pipe junctures in that 7 miles. Are they butt-welded, electrostatically joined?

Pipes are heat fused together

How joined, and how do you test for patency?

They did not understand the question

What are the potential risks we run for a leak like The Powell River Peak had on Feb of 2009? They just do not expect one was my impression When a leak is detected how will the public be informed, what will be the procedure for removal of the contaminated soil? No real answer since msd takes over line

How do you define "hazardous" Whose standards (EPA, NRC, MDNR) and which agency monitors, inspects, MSD? No real answer expected standards of EPA

What is your worst-case scenario plan? none

When did MSD allow you to increase discharge at Mo river MSD plant from 20,000 gal/day to over a million gallons weekly? Sept 2014

What is the EPA's opinion on sending radioactive material through towns on the Rock Road. If they have no voice then,this is "negligent" on their part. Could not answer

The AEC (Atomic Energy Commission) is another agency dealing with radioactive waste. Could not answer

How do we know if their Geiger counters are correct. As a lay person we just have to take their word for it. A separate company tests for them was the answer Why are manholes being installed if this pipeline is fully self contained? They are labeled as Air Vacuum Manholes... will need to be vacuumed out?

They are air vents

Then where does THAT go? Vents into air

What if there is a rupture or a spill? Msd responsible

WHAT HAPPENS IF THERE IS AN EARTHQUAKE no plan in place was the impression

If these are also air release valves, who will monitor the release, msd

will it create bad odors that we have not had to deal with before? Not expected

What state legislative level authorized this pipe to go thru our town? modot

The section of st Charles rock road was just redone by modot prior to msd coming in and laying these pipes. We will have a grand opening here soon for Menards. Who is going to pay to make the road look like it did before msd came thru? It was brand new again. Also all the holes along the rock road will cause many uneven areas throughout our city, who will pay to smooth that out with a mill n overlay? modot

How often do these pipes need to be replaced?

Did not know a life expectancy on pipes

What are the chances of a rupture? Not expected

So where does this pipeline really end? Near hwy I-170 the 8" pipe free flows into the 15" gravitational flow to Bissell where it is final treated and extracted to the Mississippi

what will they do with the sludge there.

Why hasn't this been in the news to let everyone know what is going on? No answer

what happens when a pipe clogs/bursts/erupts, etc and that leachate becomes exposed to the surface or seeps into ground water.... MSD responsible

WHAT'S the clear chain of command for who is testing it and what it looks like before treatment, and after treatment BEFORE it goes through the line. ???

who is responsible and who should be called if a spill is observed? MSD

who is responsible for testing, MSD

who is responsible for leaks, etc. MSD

where do we find raw data from testing before treatment and after treatment! www.bridgetonLandFill.com

Is MSD testing also ... FINAL TEST

In plain English - what is the material that will be pushed through the underground piping?

Leachate is the liquid byproduct of decomposing waste. It is found in all landfills.

Why does it need to be moved anywhere ODORS

AND an undetermined reaction caused the leachate reaction to speed up (they do not know what caused the leachate reaction to speed up)

what alternative methods have been explored?

PRIOR TO PIPELINE THEY HAVE BEEN USING 240-340 FRACK TANKS/35 TRUCKS/DAY ON THE ROADS TO BISSELL

The actual construction going through St. Charles Rock Rd might not need municipal approval - but shouldn't the fact that they are passing material (potentially hazardous) through our municipality warrant resident involvement/awareness and municipal approval? NO ANSWER

The airport and various sites there have mostly been cleaned up. Weldon Springs has also been remediated. Destrahan, the downtown site has been remediated. Still remaining, the thousands of back yards bordering the branches of Coldwater Creek on the north side of 270, this cleanup has just begun. And the final resting place for the waste, Westlake Landfill was designated an EPA Superfund site in 1990. Progress has stalled on a cleanup. WHY? ???

I AM UNAWARE of any other Superfund site's which has an out of control underground smoldering landfill fire burning less than a 900 ft proximity of what's been identified as the world's oldest nuclear radioactive weapons waste. HAS ANY regard BEEN taken into consideration about the things that could and will go wrong with running this enormous amount of leachate through several communuties.

IS state of the art equipment being used at the landfill in regards to trying to contain the fire.

...stuff breaks down and stops working because of the abuse this fire is causing.. as long as this fire is burning. Which realistically could be another ten years. ..there will be malfunctions.

HOW WILL THESE malfunctions be contained to just the landfill. DO NOT FEEL AN ISSUE BECAUSE DISTANCE BETWEEN THIS LANDFILL AND THE WESTLAKE LANDFILL IS LIKE 3 FOOTBALL FIELDS.

What precautions are being made to prevent this waste from becoming part of the leachate that is pretreated and then runs thru these

pipes? NOTHING SPECIFIC STATED JUST FOOTAGE

What can we do to be assured of our safety?

I for one am not a happy camper seeing this line put in and somebody elses problem pumped through our communities without our consent.

Why are we to be the ones that get our safety gambled with? ???

Why the heck could they not of done it in their own back yard instead of spreading the risk to so many others? ???

What are the risks of contaminating our neighborhoods? NOT EXPECTED

Is the EPA involved in this? Do they even know? TESTING

What is our Emergency Response when this happens? NONE KNOWN

MO DNR? UNKNOWN

The local municiplaities? WERE NOT TOLD, IT'S IN A STATE ROW

UTILITY DIGGING HITS PIPELINE...What happens then? MSD

Is there a HAZMAT response team? NO

Is the area immediately contaminated? MSD

What are long term effects to exposure? UNKNOWN

MSD response? CAN'T ANSWER FOR THEM

What are the procedures for flushing a clogged line? CAN'T ANSWER FOR THEM

*** RESIDENT STATES: Having used nuclear dense o'meters (a engineering tool used to check compaction, mositure of soil used in fill areas and asphalt etc.) and having to pass the safety course I was taught you can't burn or wash radioactivity away. It will be there no matter what. So my questions are these. What emergency procedures do they, or will they have in place when operations commence, to insure our safety and our investments in our homes?

Who is responsible in case something does happen? MSD

What entities will monitor the waste running thru the pipe and into the mainline at hwy i-170 and how often. MSD

Where will reports be sent to follow up on these numbers. UNKNOWN

WHAT ASSURANCES HAVE BEEN MADE TO ENSURE THIS PROCESS IS SAFE FOR THE NEXT 100+ YEARS? After all 50 years ago people determined it was safe to place Nuclear Waste into the ground and the results from that decision have been devastating. UNKNOWN

End questions,

I request thru the rules of the sunshine law that you supply me the answers to the best of your ability to be shared with my residents. Assuming we do not get to all of these at the scheduled meeting Dec. 29, 2014.

Sincerely

Amy Poelker

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A COPY OF THESE QUESTIONS WAS HANDED TO BRIAN POWERS BY OUR CHIEF OF POLICE AARON JIMENEZ. THOUGH REPUBLIC IS A PRIVATE COMPANY SO THE SUNSHINE LAW DOES NOT APPLY TO THEM. WITH A NOD MR POWER'S SEEMED TO AGREE TO TAKE THE QUESTIONS BACK AND TRY TO GET THEM ANSWERED.