



Missouri Coalition for the Environment

Effective Citizen Action Since 1969

August 28, 2013

Sara Parker Pauley
Director
Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102

Dear Director Pauley,

The Missouri Coalition for the Environment (MCE) urges that a legitimate contingency plan that protects public health and safety be adopted by the MO DNR as it relates to the subsurface landfill fire and its possible impact on nuclear weapons radioactive wastes lying 1,000 ft. away. Republic Services' amended contingency plan submitted on August 13, 2013, does not satisfy the needs of impacted communities to be protected from the subsurface landfill fire nor does it address the risks of a second subsurface landfill fire in the North Quarry, therefore, **Republic Services must be removed from the decision making process regarding contingency actions to protect local communities.** The company has consistently demonstrated its inability or unwillingness to put public health and safety first.

MCE supports the prompt and careful removal of the radioactive wastes located in OU-1 Area 1 at the West Lake Landfill in order to prevent a worst-case scenario related to the ongoing subsurface landfill fire. Removal of the radioactive wastes in OU-1 Area 1 is the only guaranteed plan to ensure the current, or future subsurface landfill fire, will not hit the concentrated volumes of the originally deposited radioactive material at the Bridgeton/West Lake Landfill. MCE has always advocated for the removal of the radioactive wastes in OU-1 Area 1 and Area 2 in the interest of public safety and we find it especially urgent now.

If the Missouri Department of Natural Resources and Attorney General choose to continue engaging Republic Services in negotiations related to the Bridgeton/West Lake Landfill, which we do not recommend, MCE's concerns are listed below.

Sincerely,

Ed Smith
Missouri Coalition for the Environment

MCE Contingency Plan Concerns

2.4 Progression of the SSE

Republic Services states “these phenomena have been observed at other sites experiencing similar issues.” Just as MCE stated in section 3.1.2 of our letter dated July 11, 2013, Republic Services again fails to cite other landfills on which it bases its conclusions. Effective evaluation of the contingency plan depends on full knowledge of the outcomes at the landfills Republic Services references as the basis for its significant generalizations. We also note, West Lake Landfill is unlike “other sites” because of the uncontained radioactive nuclear weapons wastes that lies there.

3.1.2 Screening of Additional Isolation Options

Physical Barriers

MCE continues to support the creation of an isolation system in the neck of the landfill to prevent the current SSE from moving into the north quarry at all costs. MCE supports the MO DNR independent landfill fire experts Dr. Stark and Mr. Thalhamer memo that action must be taken in the neck to prevent the SSE from moving into the north quarry (Stark Thalhamer Memo, pg. 7). Whether it is a physical barrier, injection of cold gases into the neck, or other conceivable efforts, all efforts to contain the SSE to the southern quarry are absolutely essential.

An independent work plan and cost estimate for preventing the SSE from moving through the neck and into the north quarry are also essential. DNR must verify that Republic Services’ claim that 2.5 million cubic feet of landfill material would need to be excavated from the neck while only 650,000 cubic yards would need to be excavated along the proposed isolation barrier (Aug. Contingency Plan, pg. 48).

An isolation break in OU-1 Area 1 may be financially preferable to Republic Services to avoid having to dig a trench in the future if the north quarry has a localized SSE, which is not the same thing as what is best for impacted communities. Impacted communities around the landfill do not need to worry about two subsurface landfill fires because one has already disrupted thousands of people’s lives and will continue to burn into the foreseeable future.

Excavated Isolation Barriers

It must be **noted again** the Agreed Order (22.B.iii) between Missouri and Republic Services states excavation should take place **between** the North Quarry and radiological material in OU-1 Area 1 (Agreed Order, pg. 12-13). Republic Services assumes that it will be quicker to create an isolation break in OU-1 Area 1 than it would be to create a barrier in the neck between the

north and south quarries. However, the presence of radioactively impacted material (RIM) along the proposed isolation barrier could render the landfill exposed for a significant amount of time. A prolonged removal of the waste material along the proposed isolation break would certainly “trigger” the same concerns that Republic Services has regarding the inability to create a physical barrier in the neck of the landfill. The company cites that a prolonged open hole in the ground of 1-2 years would “result in associated challenges related to managing odors, minimizing environmental impacts, and controlling nuisance issues like birds and truck traffic” (Aug. Contingency Plan, pg 9). The company also cites problems with prolonged open holes in the landfill because of “certain airport covenants” (Aug. Contingency Plan, pg. 9).

Republic Services states its isolation barrier proposal in OU-1 Area 1 “would also serve to protect the radiologically impacted material from an SSE originating in the North Quarry” (Aug. Contingency Plan, pg. 9). MCE supports the isolation break proposal in OU-1 Area 1 on the condition that the RIM in all of OU-1 Area 1 be fully excavated and transported to a federally licensed or sanctioned facility. The Supplemental Feasibility Study for OU-1 states there are three off-site disposal facilities that accept RIM (SFS, pg. 57).

Considering the radioactive wastes will become more radioactive for roughly the next 9,000 years, the safest way to protect the radioactive wastes from “an SSE originating in the North Quarry”, and most importantly the safety of surrounding communities, is to remove the radioactive wastes (SFS, pg. 319).

5.2 South Quarry Monitoring Trigger Actions

MCE supports immediate notification to the MO DNR in the case of any ‘Trigger Action’ and opposes waiting one business day to notify MO DNR as suggested by Republic Services. One business day could mean that MO DNR is not notified of a trigger event for days, if for example, such a ‘trigger’ occurred on a holiday like Thanksgiving or Friday night before Labor Day.

Republic Services should not be allowed to determine if a trigger action is reached. MO DNR should be able to independently conduct routine investigations and reviews to confirm if a trigger action is needed, without the influence of Republic Services.

Cooling efforts in the neck should begin immediately. MCE supports Dr. Stark and Mr. Thalhamer’s recommendation that the SSE should not be allowed to move into the North Quarry. The latest TMP data released on August 14, 2013 shows a range of maximum temperatures along Trigger Line 1 from 163°F to 174°F. These temperatures have fluctuated minimally over the last several months. Considering the GIW system is basically experimental and the longevity of SSE’s, taking advantage of the system while it is working is necessary to enhance fire retardation efforts in the neck of the North and South Quarry.

North Quarry Cap

MCE supports Dr. Stark and Mr. Thalhamer's recommendation to immediately cap the North Quarry. GEWs in the North Quarry have shown temperatures above 150°F as recently as July. Installing an EVOH cap similar to the South Quarry will mitigate oxygen intrusion in the North Quarry and limit landfill gas emissions that have impacted communities for almost one year.

DNR told Republic Services in a comment letter that:

In order to address public nuisance issues, the department has the right to require installation of the North Quarry cap sooner should odors again increase and be attributable to landfill fugitive emissions coming from the existing earthen cap. (DNR Comment Letter, pg. 5).

Republic Services is not operating as a good corporate citizen when it tells DNR that the department cannot require a cap on the North Quarry because such a requirement is "outside the scope of the North Quarry Contingency Plan set forth in the Agreed Order, as such, no response is provided here" (Cover Letter, pg. 7).

DNR, DHSS, and the EPA have all not only provided comments on Republic Services isolation barrier, but have expedited comments on the isolation barrier that are now posted on the DNR website, and all of this falls outside the scope of the North Quarry Contingency Plan as set forth in the Agreed Order if there is RIM in the proposed isolation barrier. Republic Services disregards the Agreed Order when it sees fit while using the Agreed Order to be a bad corporate citizen when it sees fit. DNR's comment is completely reasonable and justified.

Republic Services cannot challenge DNR's regulatory authority to force a cap on the North Quarry because it is not in the Agreed Order, as stated in the landfill company's August 13 cover letter, while at the same time disregarding the Agreed Order by proposing an isolation break in OU-1 Area 1 for which the state of Missouri has no legal jurisdiction and it is unknown if RIM will be found along the proposed isolation barrier.

If radiologically impacted material is detected along the proposed isolation break between the North Quarry and the radiological materials contained in the West Lake Landfill Site OU-1 Area 1, the scope of the Agreed Order suggests a new isolation break will be needed that does not come in contact with the radiologically materials because the isolation break is to be between, not in contact with, radiological materials.

Isolation Barrier Trigger

The isolation break trigger should be composed of TMPs 1-4 in order to maximize time to create an isolation barrier in the event RIM is found along the proposed path. Too many unknown variables exist for Republic Services to be certain of how quickly it can create the isolation barrier on in OU-1 Area 1. MCE supports the Proposed Sentry Criteria in the Dr. Stark

and Mr. Thalhamer memo applied to TMPs 1-4 as the isolation barrier trigger. Again, MCE supports the isolation barrier as well as the full removal of the radioactive wastes in OU-1 Area 1.

5.3 North Quarry Monitoring Triggered Action

DNR's independent landfill fire expert, Mr. Thalhamer, provides a guideline for detecting smoldering fires in landfills in a comment letter dated July 17, 2013. Mr. Thalhamer's recommendations in the comment letter that apply to this section of Republic Services amended contingency plan for detecting a SSO or SSE include:

- Temperatures over 170°F;
- Elevated carbon monoxide concentrations above 1,000 ppm (Thalhamer Reoprt, pg. 7).

Republic Services proposed action guideline for a localized SSO in the North Quarry is inadequate. The company has demonstrated its inability to handle the SSE in the South Quarry to the point of intervention from Attorney General Koster. Republic's proposed guidelines for informing DNR of an isolated SSO in the North Quarry are not in the interest of public safety and surrounding communities impacted by associated landfill gas emissions.

The "triggers" for notifying DNR of a SSO in the North Quarry are too high. It is MCE's understanding that GEWs show an average of temperatures in any given well. Because 180°F is an average of temperatures throughout the well, a heating event could be occurring at temperatures higher than 180°F where it is taking place below the surface. Heating events in the South Quarry are found more than 100 ft. below the surface of the landfill as indicated by TMPs, when temperatures at other depths in the same TMP raise no concerns.

The impact of the SSE in the South Quarry has been an extreme imposition on the lives of those in surrounding communities, therefore, "triggers" for notifying DNR must be much lower so the department has time to react to an isolated SSO in the North Quarry, which appears to be happening at the present time based on GEW temperature data in the North Quarry.

MCE recommends decoupling the temperature from carbon monoxide data and lowering the trigger values. MO DNR should be notified and involved well in advance of a smoldering event taking place in order to satisfy the public interest of preventing a second SSE from developing in the North Quarry.

Conclusion and Recommendations

MCE continues to support the full removal of Republic Services from primary decision making processes at the landfill because Republic puts the interests of the company ahead of the local communities it has adversely impacted for more than a year due to the ongoing SSE and awful smelling landfill gas emissions.

MCE recommends:

- Safely remove radioactive wastes in OU-1 Area 1 immediately. Removal will eliminate the possibility of the SSE reaching the site where radioactive wastes were dumped in OU-1 Area 1.
- Sequester the SSE to the Southern Quarry at all costs. Unknown waste materials and radioactive wastes are present in the North Quarry. Airport concerns are valid and must be applied as it relates to the safe removal of the radioactive wastes.
- Important decisions should not be made behind closed doors. Surrounding communities deserve a way to formally submit their concerns and recommendations and receive responses.

MCE urges DNR to fully reject Republic Services Contingency Plan and put forth a plan that satisfies the magnitude and complexity of the multiple issues at the Bridgeton/West Lake Landfill. Above all, a contingency plan must demonstrate how it will keep the community safe.

Thanks,

Ed Smith
Safe Energy Director
Missouri Coalition for the Environment

CC: Governor Nixon
Senator Blunt
Senator McCaskill
Congressman Clay
Congresswoman Wagner
Senator Chappelle-Nadal
Senator Dempsey
Senator Walsh
Senator Lamping
Representative Otto
Representative English
Representative Nichols
Representative McNeil

REFERENCES

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