Center for Health, Environment & Justice
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October 30, 2014

Karl Brooks
Regional Administrator
USEPA

Dear Mr. Brooks:

Thank you for taking the time to meet last week by phone with CHEJ and Just Moms STL. I think it was very clear from that meeting that the residents living around the West Lake Landfill are very concerned about the ongoing public health risks posed by the fire that has been smoldering at the landfill for over four years and continues to approach the highly radioactive waste buried in the adjacent landfill. Just Moms STL clearly articulated what the residents there are going through by living with undefined risks and great uncertainty every day. I'm sure you will agree this no way to live.

It was also clear from our conversation that EPA has the authority to relocate the families who live closest to the landfill right now, without having to wait to count the "bodies in the street." The residents are already being exposed to an unacceptably high risk that does not even include what EPA has called the "unquantifiable risks" of the fire encroaching on the radioactive waste.

This is an untenable situation which EPA has the authority to fix. Section 104 (a) the Comprehensive Environmental (CERCLA), provides that whenever

> "a release or ***threatened release*** of pollutants or contaminants into the environment may present an imminent and substantial endangerment to the public health or welfare, the President may provide for remedial action … or take any other response measure consistent with the National Contingency Plan which the President deems necessary to protect the public health or welfare or the environment" (emphasis added).

Section 101(24) of CERCLA states that a remedy or remedial action includes the:

> "costs of permanent relocation of residents and businesses and community facilities where the President determines that, alone or in combination with other measures, such relocation is ***more cost effective*** than and environmentally preferable to the transportation, storage, destruction, or secure disposition off-site of hazardous substances, or may otherwise be necessary to protect the public health or welfare" (emphasis added).

Furthermore, Section 101(24) of CERCLA states that:

> "… a decision to provide permanent relocation may be based on, at least in part, findings from epidemiological or other health effects studies which, in the opinion of the President, demonstrates that a) there is a substantial probability that exposure to hazardous substances from the site has caused or contributed, or is likely to cause or contribute to adverse health effects; b) even after remedial actions are taken, persons remaining in the vicinity of the site would continue to be exposed to hazardous substances; and c) ***such exposure has a significant likelihood of causing or contributing to adverse effects or exacerbating existing conditions***" (emphasis added).

Let me remind you of the specifics of the situation at West Lake that provide EPA with the justification to use its authority under Section 101 of CERCLA to permanently relocate the residents who live closest to the landfill and who are at the greatest risk:

- The West Lake Landfill Superfund site contains highly radioactive waste, the precise location and quantities of which are unknown.

- The fire at the landfill site has been smoldering for more than 4 years. MO DNR estimates, if efforts to contain the fire to the South Quarry are successful, that it will continue to smolder for an additional 5 to 10 years. If containment efforts are not successful, the smoldering could continue indefinitely.

- The fire is moving to the north (according to the State's data) in the direct line of the location of the highly radioactive waste buried in the West Lake Landfill. EPA Region 7 has yet to identify the Southern boundary of radioactive wastes near Operable Unit-1.

- The risk assessment conducted by the USEPA in 2008 (based on data collected in 2000) found a risk in access of one-in-ten thousand ($1x10^{-4}$); this risk assessment does not take into consideration ANY exposure from the smoldering fire or any fire risks.

- EPA has stated repeatedly (most recently at the October CAG meeting) that the risks posed by the fire have not and cannot be quantified or estimated to include in the risk assessment.

- EPA could not explain at the October CAG meeting how the risks of a smoldering fire will be assessed in the forthcoming Record of Decision amendment. Even more, EPA Region 7 continues to rely on a two page memo from the EPA Office of Research and Development (ORD) as the ***only*** independent evaluation of the risks posed should a smoldering fire impact the radioactive wastes.

- The EPA ORD in a March 2014 memo stated that the fire "may result in increased emissions of radon *and other contaminants* in the air and groundwater, even with annual inspections and proper maintenance of designs discussed in the 2008 ROD and 2011 SFS." The EPA ORD goes on to say there could be short-term and long-term risks to people should a smoldering fire reach the radioactive wastes.

- The EPA ORD also stated that, "…in the event of a Subsurface Smoldering Event (SSE), there could be chemical reactions between the radioactive-impacted material (RIM) and non-RIM materials in OU-1. These reactions could cause a rapid buildup of heat or gas and subsequent reactions or reactive conditions in the landfill."

- According to the ORD memo, the landfill fire could also "cause the structural integrity of the cap called for in the 2008 ROD to be adversely affected. This could potentially include surface cracks and fissures in the cap extending down into the waste material, and potentially cause permeation of the cover used. Surface cracks and fissures may allow gases (such as radon and steam) to escape, and potentially create conditions that could allow fine particulates to escape from the landfill. Since we do not have a full accounting of the material in OU-1, we cannot make a definitive assessment regarding the potential for chemical reactions between the RIM and non-RIM materials if an SSE were to occur."

- On October 1st and 2nd 2014, Sulfur Dioxide concentration readings were recorded above levels of "public health concern" for several hours in a residential location southeast of the landfill. Strong odors were also noted by the MO DNR during the collection of this data. It took more than 3 weeks for the state to release this information to the public.

- The number of incident cases of brain and other nervous system cancer among children age 17 or younger was significantly higher than expected in ZIP code 63043 during 1996-2011. This is the zip code that includes the families living around the West Lake Landfill.

- Construction of a barrier to separate the current smoldering event from the radioactive waste in the shortest timeline is more than two years away, and is likely more than three years away, once a final decision is made. This is independent of the ongoing investigation of the long term disposition of the radioactive waste which itself may take decades depending on what remedial remedy is decided for use at the site.

I am especially struck by the fact that EPA's 2008 risk assessment found a cancer risk in access of one-in-ten thousand ($1x10^{-4}$) and that this risk estimate does not take into consideration ANY exposure from the smoldering fire. This is especially concerning given the recent sulfur dioxide reading at above "public health concern" in the residential area.

I am also troubled by the fact that EPA states that it cannot determine the public health risks should the smoldering landfill fire reach the highly radioactive waste in the West Lake Landfill. At the October CAG meeting, EPA representative Mary Peterson repeatedly stated that EPA could not quantify the risks because there was no data on the levels of chemicals and/or radiation generated by the fire. While that response may sound logical, EPA risk assessments are routinely conducted using estimates of exposure based on the best available data or in many instances on "worst cases scenarios" that assume high (even unreasonable) exposures in order to compensate for uncertainties. If EPA did not estimate exposures based on little or no data in its risk assessments, it would rarely ever do a risk assessment. This is standard practice that I am sure you are well familiar with.

This troubles me because EPA is presenting options for cleaning up the site that are based on an incomplete and inadequate risk assessment – as telling as it is – that does not take into account any risks from exposure to radioactive waste that would be released if the smoldering landfill fire reaches the radioactive waste in the West Lake Landfill. The proposed cleanup options are not likely to be appropriate given this omission.

As I stated in our phone conversation/meeting, CHEJ has been involved in numerous relocation decisions made by the agency, including Times Beach, MO, Pensacola, FL, Texarkana, TX, Libby, MT, Forest Glenn, NY and many others. It is an option that EPA can take if it has the political will to do so. I encourage you, based on the reasons provided in the letter and including the arguments made by Just Moms STL during our phone conversation/meeting, to relocate the those families closest to the landfill (1-2 miles of the site) including Spanish Village as a first step. You have the authority under section 104 (24) of CERCLA. Now you just have to act.

Thank you again for your time and attention to this critically important situation.

Sincerely,

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