To: Davis, Michael[Davis.Michael@epa.gov]
From: Hooper, Charles A.
Sent: Tue 3/4/2014 6:28:04 PM
Subject: RE: REVISED: West Lake Landfill Air Monitoring Considerations

I almost forgot the background! Yes, I'd like to have one, and preferably two. Upwind, west a few miles, with buy-in from the State. This background used to subtract out radon and TLD dose measurements. The particulate results are basically compared to acceptable concentrations but it's also handy to have a background level for that too.

Chuck Hooper, CHP

Radiation Safety Officer

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Hooper.CharlesA@epa.gov

From: Davis, Michael
Sent: Tuesday, March 04, 2014 12:06 PM
To: Hooper, Charles A.
Subject: REVISED: West Lake Landfill Air Monitoring Considerations

Hey Chuck:

Thanks for the comments and info.

Based on your comments, I have revised the proposal to explicitly recommend gamma dosimetry

at all sites in lieu of AreaRAE for gamma measurements. I have continued to include AreaRAE in the network recommendations for gaseous pollutant monitoring.

BTW- the primary reason for adding the two sites on the northern perimeter is to allow for differential upwind / downwind data to be collected simultaneously so that it would be more convenient to discern the actual impact that site activities are having on air quality without concern for background contributions.

Please advise what you think.

Thanks - Mike

From: Hooper, Charles A.
Sent: Tuesday, March 04, 2014 11:13 AM
To: Davis, Michael
Subject: RE: IMPORTANT: West Lake Landfill Air Monitoring Considerations

Mike,

I like the approach, but I've added a comment about having gamma dosimetry instead of AreaRAE monitoring to make it more consistent with how the USACE does their environmental monitoring, see attached pdf – Section 3. The AreaRAE gamma monitors also tend to run high with high summer temperatures so I'm hesitant to request exactly the same instrumentation without consulting with DNR and DHSS for their experiences.

I've also forwarded this on for comment to Gregg Dempsey (EPA RERT) to see if he has any comments, but I don't know if he's going to be able to provide a quick turnaround. I'll let you know asap on that but I think we can go with this.

-Chuck

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From: Davis, Michael
Sent: Monday, March 03, 2014 1:34 PM
To: Hooper, Charles A.
Subject: IMPORTANT: West Lake Landfill Air Monitoring Considerations

Chuck –

Attached is the one-page bulletized set of recommendations I have assembled for Ron to consider.

Would you please look it over and see if you agree with the approach? Additionally, would you please add any necessary explanatory information to the rad monitoring section as I just don't know very much about how those samples are collected or processed, especially the 24-hour integrated filter samples.

Would appreciate if you could give this high priority.

Thanks - Mike

From: Hooper, Charles A.
Sent: Friday, February 28, 2014 3:52 PM
To: Davis, Michael
Subject: RE: West Lake rad air monitoring considerations

Mike,

To me it makes the most sense to place these at or near the fence line since the results will compared against a public dose/concentration. And I asked Gregg Dempsey-RERT about running duration, and he was of the opinion that if you don't run them 24/7 then that's exactly when someone is going to object about the non-working hours. Now really, only the air sampler for the particulate will run constantly, the TLD and radon are passive. The TLD collected about monthly or quarterly, and the radon probably every week.

-Chuck

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From: Davis, Michael
Sent: Friday, February 28, 2014 11:32 AM
To: Hooper, Charles A.
Subject: RE: West Lake rad air monitoring considerations

Hi Chuck:

Thanks for the information.

Where would you recommend to place these monitors (distance from source), and do all three need to be running simultaneously at each site?

Thanks - Mike

From: Hooper, Charles A.
Sent: Tuesday, February 25, 2014 4:40 PM
To: Davis, Michael
Subject: West Lake rad air monitoring considerations

Mike,

There are three components of monitoring for rad as I see it, 1)gamma comparable to AreaRae, or possibly TLDs, 2) air filter for particulate similar to what occurs during on-site work, & 3) radon.

MDNR is conducting some gamma readings with AreaRae's but not all of their monitors have the gamma detector. Particulate filters require samplers running 24/7 and a/c power, the filters collected about weekly and sent into a lab for analysis (this is mainly to get enough air volume to get down to the residential reassurance level). Radon could also have a weekly sample, but a couple of different options, 1) sent to lab like a short-term residential radon test kit, or 2) a field E-perm radon collection device that could be read in the field.

Radiation air monitoring bullet points:

- Radiation air monitoring would cover ambient gamma levels, particulate and radon.

- Particulate samplers will require an a/c powered sampler and a secure, vented sample box if off-site.
- Get buy-in on the location of background sampling points.
- Recommend hourly barometric pressure readings (centralized) for the radon detectors.

I noted on the map: Terrisan, Spanish Village and a nearby resident

Terrisan Reste Trailer Court

12715 Saint Charles Rock Rd

Bridgeton MO 63044

Spanish Village residential area and park

Spanish Village Park

12827 Spanish Village Drive

Bridgeton, MO 63044

Additional nearby resident:

12855 Boenker Lane

Bridgeton, MO 63044

Other notables:

DePaul Health Center

12303 DePaul Drive

Saint Louis, MO 63044-2588

Fire Station

13900 St Charles Rock Rd, Bridgeton, MO

Police Station

12355 Natural Bridge Rd, Bridgeton, MO

Child Quest Daycare & Learning

12297 Natural Bridge Rd, Bridgeton, MO

Hazelwood West Middle School

12834 Missouri Bottom Rd, Hazelwood, MO

Also,

Existing MDNR air monitoring (AreaRae) locations as a pdf

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