Message

From: Coate, Carson [Coate.Carson@epa.gov]
Sent: 6/29/2015 3:34:28 PM
To: Greene, Nikia [Greene.Nikia@epa.gov]
Subject: RE: When will I received the information that I requested on April 22, 2015?

Good call!

From: Greene, Nikia
Sent: Monday, June 29, 2015 9:13 AM
To: DalSoglio, Julie; Coate, Carson
Cc: Vranka, Joe; Elsen, Henry; Chergo, Jennifer; Gallagher, Bob
Subject: RE: When will I received the information that I requested on April 22, 2015?

Confidential:

I know we have done some monitoring back in 2003-2004 time frame for metals and found nothing and discontinued that effort. Recently AR has proposed some dust monitoring, for heavy metals, related to storm-water (I have not commented on that plan yet). So, EPA is not monitoring emissions from MRI and I would suggest that DEQ takes the lead on responding.

Thanks,

Nikia

From: DalSoglio, Julie
Sent: Thursday, June 25, 2015 9:46 AM
To: Coate, Carson
Cc: Vranka, Joe; Elsen, Henry; Chergo, Jennifer; Greene, Nikia; Gallagher, Bob
Subject: RE: When will I received the information that I requested on April 22, 2015?

I was thinking about a response to his statement I highlighted in yellow below that he assumes EPA is monitoring emissions from MRI. On the Superfund side we are trying to create a record to respond to his misstatements that we can use in future responses.

Jennifer and Nikia: what are your thoughts on creating a response to John Ray on this topic?

Julie

From: Coate, Carson
Sent: Thursday, June 25, 2015 8:22 AM
To: DalSoglio, Julie
Cc: Vranka, Joe; Elsen, Henry; Chergo, Jennifer; Greene, Nikia; Gallagher, Bob
Subject: RE: When will I received the information that I requested on April 22, 2015?

Julie –

I was thinking about this a little more and was wondering if really owe John a response at this point in time. He states in his email he understands MDEQ has delegated authority over the air program and therefore, his questions are directed towards MDEQ.

Thoughts?
CC

From: DalSoglio, Julie
Sent: Wednesday, June 24, 2015 10:17 AM
To: Coate, Carson; Gallagher, Bob
Cc: Vranka, Joe; Elsen, Henry; Chergo, Jennifer; Greene, Nikia
Subject: FW: When will I received the information that I requested on April 22, 2015?

Carson and Bob:

I would like to respond with a very simple response to John Ray explain that EPA does not monitor the emissions and why. Could you provide me with a short write up? Thanks.

Jennifer: While this is not a Superfund question let's add to our tracking list of JR topics. I could see him raising the same questions in health studies and risk assessment (for Westside Soils OU).

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From: John Ray [mailto:bodinman2003@yahoo.com]
Sent: Wednesday, June 24, 2015 6:33 AM
To: Sullivan, Karen; scoe@mt.gov; Peterson, Lisa; Powers, Dan; DalSoglio, Julie
Cc: Susan Dunlap; drude@mt.gov; Livers, Tom; Stone-Manning, Tracy; jchambers@mt.gov; Jeni Flatow; Joe Griffin; Riley, Paul
Subject: Re: When will I received the information that I requested on April 22, 2015?

Thank you. I look forward to receiving the information.
My assumption was that MDEQ had information as to what, if any, emissions were emanating from current mining activity in Butte.
It is my understanding the MDEQ has been designated by EPA to implement/enforce air quality emission standards.
In order to enforce these standards, it would be necessary to know what emissions, if any, are emanating from current mining operations. In short, how can an air quality standard be implemented/enforced if those charged with implementation don't have the necessary data.
I look forward to answers to the questions that I have posed:
I assume that the State and EPA are monitoring emissions from MRI's operations. So I have the following questions:

1. Are substances such as copper, molybdenum, etc. being emitted into the ambient air from current MRI mining activities? I am particularly interested in dust blowing events.

2. What testing has been done in order to determine the content of the discharges into the ambient air from current MRI mining activities?

3. What is the being discharged from current MRI operations into Butte's ambient air? I am particularly interested in dust blowing events.

4. Do the substances being emitted from current MRI mining activities, if any, into the ambient air pose any health risks to Butte citizens?

5. If so, what is being done to mitigate these potential health effects?

6. What is being emitted into the ambient air from the Berkeley Pit's Tailings? I am particularly interested in emissions during dust blowing events?

7. Are emissions, if any, under # 6 above being monitored?

8. Do these emissions, if any, into the ambient air pose any health risks to Butte citizens?

9. If so, what is being done to mitigate these health effects?

Thank you for a response.

Dr. John W. Ray

On Tuesday, June 23, 2015 8:49 AM, "Sullivan, Karen" <ksullivan@bsb.mt.gov> wrote:

John: I have some information for response to you – I have been on vacation, returned today. I have a day full of interviews and will attempt to email you early evening, if not then, tomorrow – thanks very much – Karen Sullivan

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From: John Ray [mailto:bodinman2003@yahoo.com]
Sent: Monday, June 22, 2015 10:31 AM
To: Coe, Stephen; Peterson, Lisa; Powers, Dan
Cc: Susan Dunlap; drude@mt.gov; Livers, Tom; Stone-Manning, Tracy; Sullivan, Karen; John Ray; Jenny Chambers; Jeni Flatow; Joe Griffin
Subject: Re: When will I received the information that I requested on April 22, 2015?

Thank you for your replies.
I look forward to receiving the information.
As I have said before, while we rightly concentrate a good deal of attention on Superfund issues in Butte, we also have active mining occurring within the city/county by MRI.
The public has a right to know what, if any, emissions are emanating from the mine. Then questions can be asked as to potential health effects, if any, from these emissions. Then questions can be asked what, if anything, needs to be done to control these emissions.

My assumption is that MDEQ had the data and could answer the questions that I posed back in April. These are important public health questions. There is no hidden agenda on my part behind these questions. They are simply a request for information that should be publicly available.

Dr. John W. Ray
That original email, with the questions, follows:

I am interested in the issue of the emissions currently emanating, if any at all, into Butte's ambient air from current MRI mining activities. I am particularly interested in emissions pursuant to dust blowing events. By extrapolation, I am also interested in any emissions from the Berkeley Pit Tailings being emitted, if any, into Butte's ambient air. My interest was aroused by a recent presentation by a Montana Tech Chemistry Professor. This is simply a request for public information. **It involves both current mining operations as well as Superfund**.

The following inquiry contains:
1. Statement of the possible/potential problem or issue based on reported/publicly presented research by Montana Tech Chemistry Professor Katie Hailer.
2. Substantive questions I would like to pose and to which I would like answers.

Montana Tech Chemistry Professor Katie Hailer gave a presentation on exposure assessment and the potential health effects of present mining in Butte at a seminar at Montana Tech on April 16. What I believe to be her abstract of the talk and/or the description of her talk stated (I put in bold letters items of interest.):
Epidemiological studies suggest that cancer rates(1) as well as neurodegenerative diseases (Multiple Sclerosis, Parkinson's)(2) are higher than average in Butte (Silver-Bow County) as compared to the rest of Montana and the nation. Butte is part of the largest Superfund site within the continental US with recognized soil and water environmental ramifications from its 100+ year history as a copper mining town. (These comments would seem to contradict EPA's assertion that cancer rates in Butte are not abnormally high. An interesting issue in itself, given all that has been spent on the Butte Health Study to prove that cancer rates in Butte are not problematic compared to Montana and the USA.)

She stated in an IMBRE abstract for her talk :
Our previous studies recruited volunteers based upon mapping and demographic data to determine if potential chronic exposure to these metal mixtures could lead to changes in miRNA expression patterns. Human hair and nasal cell samples were collected from adults from age 22 to age 84 living within close proximity to active surface mining as well as near historic mine tailings (n=17). Control samples, ages 20 to 62, were collected from individuals living in Bozeman, MT (n=8,) a town without historical or current mining practices. Elemental analysis was performed on the hair samples by inductively coupled plasma mass spectrometry (ICP-MS) and several elements (copper, manganese, and molybdenum) were found to be elevated in the Butte population, with low levels of selenium and zinc. Chronically high levels of redox active metals are known to participate in inflammatory response and oxidative stress (3). In addition, aberrant levels of metals, such as high copper and low zinc, are implicated in a variety of diseases, especially neurodegenerative diseases (4). Our previous work also looked at microRNA expression patterns between the two groups. Despite the small group size, over 200 statistical changes within miRNA expression between the Butte and Bozeman groups were observed. Preliminary miRNA data show a number of up-regulated micro RNAs that are putative oncomirs (mir-221 and mir-222). One of the most interesting miRNA differences between groups is the up-regulation of microRNAs 146b-5p and 146a-5p that are strongly correlated in an inflammatory response via the NF-κB pathway (5). In addition to microRNAs 146a and 146b, there are a number of other miRNAs also responsible for regulation of inflammatory pathways. ***These data lead us to believe that current open-pit mining practices within the city limits of Butte, MT may be causing chronic inhalation of various metals. These elevated metals could cause aberrant biological regulation of important enzymatic and biological cofactors which, in turn, may impact human health.***
We hypothesis that the individuals living in Butte, MT are being exposed to chronically elevated concentrations of metals via inhalation and these metals are in turn causing a chronic inflammatory response within individuals living in close proximity to the open-pit copper mine.
The following specific aims are proposed in order to investigate the hypothesis.
Specific Aim 1: Analyze hair and blood samples by ICP-MS to determine metal concentrations within the Butte, MT population and compare to results from a control population from Bozeman, MT. Hair

samples from larger and age- and gender-matched populations will be collected to assess metal exposure and nutritional status. Secondary blood samples will be used to confirm elevated or depressed levels of any given element. The two sampling techniques will give a very comprehensive picture of metal accumulations between the two populations. We propose to recruit 100 adults from Butte and 100 adults from Bozeman to participate in this study. Lifestyle and demographic information will be collected at the time of hair and blood collection. Statistical analysis will be used to determine differences between populations (Butte vs. Bozeman) and also within gender (male vs. female).

Specific Aim 2: Extract total RNA from blood samples and use to determine cytokine and other inflammatory markers via PCR Array. Expression of 30 key genes, cytokines and receptors, mediating the inflammatory response will be analyzed from each individual. Total RNA will be extracted from blood serum and used to create cDNA. This cDNA will be applied to a commercially available PCR Array plate, real-time PCR will be run, and data will be analyzed for inflammatory gene expression pathways.

As I understand her research, she is investigating the potential exposure pathways and potential health effects of human exposure to releases, if any at all, from MRI's current operations in Butte. By extrapolation, the Pit may well be part of her study as I understand it.

WHY AM I WRITING TO YOU?:

I realize that her research is preliminary and no firm conclusions have as yet been reached. However, this issue should not wait for the conclusion of her research. I assume that the State and EPA are monitoring emissions from MRI's operations. So I have the following questions:

1. Are substances such as copper, molybdenum, etc. being emitted into the ambient air from current MRI mining activities? I am particularly interested in dust blowing events.

2. What testing has been done in order to determine the content of the discharges into the ambient air from current MRI mining activities?

3. What is the being discharged from current MRI operations into Butte's ambient air? I am particularly interested in dust blowing events.

4. Do the substances being emitted from current MRI mining activities, if any, into the ambient air pose any health risks to Butte citizens?

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6. What is being emitted into the ambient air from the Berkeley Pit's Tailings? I am particularly interested in emissions during dust blowing events?

7. Are emissions, if any, under # 6 above being monitored?

8. Do these emissions, if any, into the ambient air pose any health risks to Butte citizens?

9. If so, what is being done to mitigate these health effects?

Thanks you for a response.

Dr. John W. Ray

On Monday, June 22, 2015 8:02 AM, "Coe, Stephen" <SCoe@mt.gov> wrote:

I will check with Karen Sullivan with BSB. Last I left off she was going to respond as most of the questions were health related or could be answered by studies BSB either did or contracted.

-Stephen Coe P.E.

From: John Ray [mailto:bodinman2003@yahoo.com]
Sent: Monday, June 22, 2015 5:34 AM
To: Peterson, Lisa; Coe, Stephen; Dan Powers
Cc: Susan Dunlap; John Ray; drude@mt.gov; Livers, Tom; Stone-Manning, Tracy
Subject: When will I received the information that I requested on April 22, 2015?

A number of weeks ago, April 22, 2015 to be exact, I had requested information about emissions into the ambient air, if any, from current mining operations in Butte. I have yet to receive any information.
I was wondering when I might reasonably expect to receive this information and the reason for the lengthy delay in responding to my request. Given that there is a major mining operation within the city of Butte, I thought that this information as to possible emissions would be readily available.

Thank you,

Dr. John W. Ray