MANDAN REMEDIATION TRUST (MRT)
February 1, 2011

Meeting: 210th Official Meeting
Date: February 1, 2011
Location: Mandan City Hall, 205 2nd Ave. NW
Time: **2**:00 P.M.

The MRT meeting was called to order by Jim Neubauer. Fritz Schwindt was present; Dave Glatt was absent. Also attending were Ken Kytta, LBG; Scott Radig and Marilyn Mertz, Department of Health; Ellen Huber, city of Mandan.

Minutes. January 4, 2011 minutes were reviewed. Revisions were made.

Motion. Schwindt moved to approve the revised January 4, 2011 minutes; second by Neubauer. All ayes. Motion carried.

Bank Statement. The December 31, 2010 bank statement from the Bank of North Dakota shows a balance of $8,562,647.41. We have two CDs: 1 - $5 million and 1 with $2 or $3 million with less than 1 percent interest.

Pay Request. City's fourth quarter billing for 2010: utilities for $16,942.12 along with the insurance on the equipment and buildings for $1,521.20 for a grand total of $18,463.32. Radig has reviewed the billing.

Motion. Schwindt moved to approve payment to the city of Mandan for utilities and insurance in the amount of $18,463.32; second by Neubauer. All ayes. Motion passes.

Pay Request. LBG's invoice in the amount of $18,823.89. Radig noted it looks fine.

Motion. Schwindt moved to approve payment to LBG in the amount of $18,823.89; second by Neubauer. All ayes. Motion carried.

Wastewater Billing. None.

Line Repair. Kytta indicated all costs for fixing the repairs on that line that was hit should be included now, Schwindt added. There was an R3 charge for $10,000 in December, but it wasn't broken out between the RTO stuff and everything else. Kytta suggested sending Peschong a note asking for a breakout of R3's cost from his visit between routine O&M and the line fixing. Schwindt asked. Everything is done on that fix? Everything is working OK? Kytta agreed to both questions. Schwindt asked. So there won't be any negative impact on operations assistance. Kytta said no.

Fortunately, we have the spares in place so now it is fully functional. Schwindt noted we will have to get back to Community Contractors on what the total was.

Neubauer – At our last meeting we had asked Malcolm Brown and Maggie Olson, the attorney for the Health Department, to draft a release of claims and then an agreement should be reached with Morton County. They sent a two-page document. Is Olson OK with that document or not?

Radig – As far as I know--didn't hear anything back from her.

Neubauer – That might be a question we need to pose to her. Something in writing that she is OK with that agreement.

LBG Website. Radig - the server went down on the website. I told them just to hold off and don't put anything back up. Now Kytta just gave me a disk with all the files that were on the website. If we want them online still, we can put them on the Department website or city website or I can just have them available if somebody asks for copies or questions.

Neubauer – Also, we should probably have them here on a flash drive or…if somebody asks for the information. I will have to take a look at the list of the documents.

Kytta – When LBG looked at it didn't appear there was a lot of use out of it. Kytta noted early on in the project there was, but not much interest anymore. So no big deal if we discontinue it, Schwindt asked. Kytta indicated it's up to you. Neubauer suggested cut it loose and be done with it. Radig will burn another disk or put it on a flash drive.

LBG Update. Tim Kenyon is not able to be here because of the weather.

Annual Report – Where we have gone and where we are going.

System Operation - Third year full scale operation -- We continue to do some optimization this year. This is a hydrograph showing where water levels have been historically going back to 1987 and what you will note is that water levels right now are at the highest they have been since we have been operating. That has had an effect on where the product is. What you tend to see is the water table comes up you find layers within the lithology where there are more porous areas and so the product tends to move around a little bit. This is just a crude look that we took at it, but with a high water table where we are right now vs. the low what we have seen is that the thicker product has migrated south of Main Street and a little bit to the west of the blue circle where it was when it was lower. The red circles show where it is now when it is higher so we are constantly tweaking where we are pulling product from based off the product in the wells, which brings us to the latest product map. Quite frankly there is not a lot left out there, but we are to the point where we are kind of chasing pockets here and there.

You will note on the property boundary on the south. I kind of noted this last year. I don't know if we will ever get rid of that property boundary. From an MPE perspective, it's better to have a low water table, but we are finding here when we get to the removal rates we will see that our product removal was pretty similar this past year. I think what we are seeing is the effect of as the water tables move it actually liberated some pockets of free product this past year that we have been able to get at so in a sense that has been a positive. So when the water table goes back down, the flip side of that is right now our soil venting numbers--our vapor concentration those we have seen drop off this past year with the higher water table is what you expect. But the flip side of that is when the water table drops again that product is essentially going to re-smear and give us a chance to pull it out with the soil vapor extraction system. So the high water table is not all bad. What we have discovered in our operation this past year so we continue to optimize and move around where we are collecting the product or continuing to see some MPE in the areas where we are not seeing product. Not as much this year but continue to make little tweaks to the water treatment system so they are not getting as much sludge production. The big change a year and a half ago when we got the amount that we were producing reduced significantly, but we are still making tweaks to that to make sure we are minimizing the amount of product or sludge that we are producing.

LEC – This past year we finished out the LEC drain tile system. We are about three feet from the high in '94-'95 when the LEC basement flooded. So the drain tile is about 2 feet below the floor so another foot higher and we will start seeing water in that drain tile in the LEC.

Neubauer – And that is set to go to the oil water separator in the LEC and then quasi clean water goes to the city sanitary sewer.

Kytta - But interesting there is one loose end there that as far as I know the county has not addressed unless they did without our knowledge. Is the permit with the city? I'm assuming that has not been done. Steve Himmelspach did take a look at it. When we were installing it, he saw what we were doing there. He is familiar to what is going on. I don't know if that has ever been followed up on.

Site Strategy Plan – We had the public meeting for the SSP a year ago. It doesn't look like you got any comments back on that.

Recovery Totals - This past year we removed nearly 13,000 gallons of product. That is very similar to the number in 2009. What it appears we have liberated some other pockets of free product with the water table coming up. That's still an average of 35 gallons a day so we are still getting significant amounts of free product out. I anticipate that number is going to start dropping because we are down to pockets left.

Discussed the number. Kytta explained that most of that number is sludge. I thought we did have one shipment by Chief Construction this last year. The number that really has dropped off is vapor recovery. The 60,000 is the total for the project.

The 13,000 is 2010. So vapor recoveries for the project we are at 32,000 and they only recovered 663 this year which is basically 20 percent of what we recovered in 2009. Because of the higher water table that is where we have seen the reduction. When we get into the discussion of the RTO that's another one of the reasons why we are beginning to use more assist gas.

Pounds of methane that is about half of what it was last year. We are still removing some methane.

Bio attenuation is about half of what it was last year due to the high water table. We now see 2,000,000 pounds of removal. Here's a graph over time you can see it has been slowing down for a while. We are still getting significant amounts of removal. The first was without methane. The second one was with methane. Here are some historical product contours going back to 2006, Oct. 2007, Oct. 2008, last year's and now this year's. This is the figure we have on the 11" x 17". We have these pockets here along the property line. The other area is in front of Huntington's bookstore they have almost 2 feet of product. That is in a monitoring well. The wells underneath the street we are not operating those during the winter. With these temperatures we would be asking for trouble because they come up pretty shallow at the end of that curb. We can work on the one at Huntington's bookstore but as far as using some of the wells underneath the street I think that will have to wait till spring. We continue to focus our efforts on the areas that have the product in them. These are slides we have just updated--$16.9 million that has been spent to date. What's been authorized? What's outstanding? There are $1.1 million tasks that we came under budget that have been closed. For 2010, O&M budget again we came in under budget. For 2011, our estimate is less than 2010. This is a summary of contractors and the emphasis on what was spent on the in-state contractors. So 2011 continued system efficiency enhancements. We've shut down areas that we have completed and then site strategy implementation.

Neubauer – Depends on what your next topic is at the Ratz Block because that is feeding that, correct? Depending on what happens with the wells on Collins and Main.

Kytta – We can essentially give back 90 percent of the space in the fire station. We would still need a little bit of area to essentially use it as a little larger remote manifold. It can be done. It can be re-plumbed, but we can't give it all back to you at this point because we still need some of the wells to operate in that area.

Kytta – 2010--Are our O&M costs for 2011 reduced from 2010? Again, modifications as necessary for development and any other meetings of project management that is needed. The map is on here already. The water table may become too technical.

Neubauer – I think for discussion it would be a good thing to have a water table.

Kytta - It helps explain why certain things are happening.

Neubauer – You may get asked how much longer? Financial step? We will be absent Mayor Helbling and Commissioner Tibke so that is three new commissioners there. And start seriously looking at closing down other parts. I don't know if you can ask for that based on the Site Strategy and all that business.

Radig – We haven't reached asymptotic level yet on the system as a whole anyway, but certain areas you have.

Neubauer – Maybe that's where you have the graph climbing at a slower rate.

Radig - It is not as steep, but it has leveled off anyway.

Kytta – The graph shows an accumulative amount so it will never go down. It would go flat.

Neubauer – It would be important to point out it is not going to go down but it is going to flat line here. For the last two years it has been rather flat lining so at the end of the day the question will be when can we actually start shutting down parts of the system? It might not be an answerable question but you might give it anyway.

Kytta – Part of the answer is when the DoH tells us when we can start based off the SSP.

Radig – That is the real end game. The actual shutting down the active part of the system it looks like it could be two years or three years and whether single segment of the system is shut down at that point.

Neubauer -- …We are spending $.25 million to operate the system on a yearly basis. It simply costs us money until you all come up with an endpoint so it will just feed you money until the decision can be made. There is money coming out of the checkbook until you make a decision.

Radig -- That decision is made on the data it is not just an arbitrary decision.

Neubauer – But there is some level out there that needs to be pinpointed and meanwhile we can sit here and spend money operating the system but if we hit a point and say that level is A and we should have decided that level was A three years ago.

Radig -- We have already decided what the level is.

Huber – What is that level?

Radig – The level is when it is an asymptotic rate of recovery.

Kytta – If you remember though the definition on free product though was changed from asymptotic removal to a level – I would say one-tenth of a foot. So basically it's a more stringent standard now than what it was changed to. Until there is less than one-tenth of a foot everywhere that's the standard for free product removal. The SVE removal and the bio venting are asymptotic.

Radig – I forgot about that.

Neubauer – I'll get the questions tomorrow to be able to answer them and whatever the *Tribune* reporter writes and the news reporter writes. It will have to be broken down in pretty generic terms. We can spend a whole bunch of money and in the beginning we talked about defining at what level we can call it clean, good enough or we can spend a lot of money to get that last fraction of an inch out of this thing.

Radig – That's where we said a tenth of a foot instead of clean when we know it could very well not ever be able to get no free product in all the wells. It is very possible in some of the monitoring wells we may not be able to even get it to a tenth of a foot just because where they are located. That's where we almost have to combine an asymptotic recovery rate for free product as well as what the actual product thickness is. If you are still seeing say a quarter of a foot or whatever it is in certain monitoring wells but your recovery rate is pretty much flat lined. You are probably stuck with that.

Neubauer – We had talked when we first started this several years ago about if the water table comes up to a certain point the potential to shut down because we are just spending money to clean….

Radig – A couple more feet to go. Was it 33?

Kytta – That is definitely a possibility from what we saw from the last year would indicate that. If the water table continues to rise, that is a definite possibility of just shutting it down for a while until water levels do drop.

Schwindt – It's not so dependent on water tables as removal rate.

Kytta – Right as long as we are still getting removal.

Neubauer – Now we are talking about the BNSF--the belt system they were going through 2 billion gallons of water a month and getting 35 gallons of product. Can we come to a point and say…what level that is?

Kytta – I certainly think so. I don't think we have gotten to that point yet, but in two years you could be at that point.

Radig – With all the snow we got this winter it could very well go up again this spring.

Neubauer - For the areas that are not showing—we all know this is a snapshot. Today's might look a little bit different. Kytta agreed.

Neubauer – Do we need to be doing something or is something being done on the purple areas that are in essence. We are trying to hit those hard knowing that on the fluid measurement and try to focus on those. North of First Street we talked about that for quite a while. We are really not operating MPE.

Kytta – There is nothing operating north of First Street. The SVE is but not MPE. Along those lines, we are cycling the SVE because quite frankly when we do operate up in this area that's when we use more assist gas so we tend to just run it for a while so it has been cycling around relatively clean areas.

Schwindt – I think there has been periodically some free product in a couple of these wells right south of the LEC where they used a stinger probe right to some of the monitoring wells to do a bit of polishing in those.

Kytta – Right, that has been very effective so we want to keep doing that.

Neubauer – Is it like a cattle prod?

Radig - It's like sucking it out with a straw.

Kytta – It's basically taking a one-inch PVC and drop tube connected to an existing well, drop it down there and let it rip for a while. That's usually during the day when they can monitor it because you have a string of hose overland. It's only a summer time operation. They do it when they can keep an eye on it.

Neubauer – So it was like when Chief was here driving their truck around.

Kytta – Yes. The fortunate thing here it is going through our system.

Schwindt - I would assume MPE is only being done essentially in the purple areas out there.

Kytta – Correct.

Schwindt - So we are way down on the number of wells that MPE is operating in?

Kytta – Correct. I haven't looked at our water bills recently, but I would think that those would be down a little bit too because I don't think we are pushing the same flow as we were years ago.

Radig – Overall, they are down. This past year they have stayed fairly steady. From two years ago they are down.

Website – Kytta gave the files from the MRT website to Radig.

RTO Analysis. Are we waiting on information whether we need to run the RTO's on occasion?

Kytta – The question that came out of the meeting is you would like to keep the RTO in place in case you need it for Buggies 'n' Blues or Fourth of July or what not so we took a look at that, which led to a couple of additional options. To answer your question whether you can basically shut the RTO down and then just turn it back on again. It's not that simple. If you are going to shut it down for an extended period of time you need to mothball it so it doesn't corrode. You could choose not to, but it is a good chance it will become worthless if you don't do it properly.

Neubauer - Is it similar to your thermocouple through your pilot light in your house that if you shut it off there are chances of corroding if it's not burning all the time?

Kytta - It's a little more complicated than that. It's an easy enough comparison. To flick the switch on for a weekend is not necessarily—it can be done, but it is a costly one because you would have to then get it ready to operate and typically after it has been down and you are talking about going through startup again and getting the gas flow rates tweaked. It would be a costly way of doing it.

Neubauer – More than it would be to continue the gas flow? Pay MDU or paying someone to start up the gas flow.

Kytta – That's one way of looking at it. Now the one option you could think about is if there was odor. Let's back up. In the analysis there are basically…two criteria you are looking at. You are looking at a regulatory limit and we are below that and then concentration dispersion--your dispersion model. And the one piece that actually needs to be updated on that, we basically run it on the old model real quick. The one piece that needs to be updated is that we have the apartment building right next door now right across the street. It is higher than the previous building was so that will need to be updated. I put together a spreadsheet summarizing the options. The question that was asked was: Can we just run the gas through the RTO? And that's not an option because the gas is very wet and corrosive when it goes through it. That's basically also going to trash the unit. We would be looking at putting in a new stack. That's the option I have on the bottom, which is the bypass RTO option, which is to put in a new stack, to mothball the RTO, and to do a permanent modification. Just backing up – the air permit states that you will operate the RTO at 1,500 degrees Fahrenheit so any of these options we are looking at are going to require a permit modification.

Neubauer -- Is 1,500 a magical number?

Kytta – Yes, it is a magical number because once you drop off the 1,500 your removal rates start plummeting.

Radig – You don't get complete destruction of the compounds.

Kytta – But our concentrations are significantly less than when we first started. This is just a ballpark estimate. I asked R3 to give me a ballpark estimate. The issue why that is so expensive is because it is a 24-inch line so it is either paying a lot to redo that line in 24-inch or you are paying in fittings. We would have to go all the way back to the two 14-inch lines and tap into those and then we could go with the smaller line but then we would have more labor with the fittings but ballpark figure and then putting up a 30 foot stack we are approximately looking at $25K to do that--mothballing the RTO permit mod. Currently, we are spending just over $2,000 a month on average on natural gas so the payback on that if you are adding all those you get that back in 16 months, a year, a year and a half depending on where the costs came in.

Neubauer – But you just can't do that. You are adding $25K plus the $56K plus the $3K.

Kytta – That's all added in there.

Neubauer – That's $33,000 or so--your payback is in 3 years.

Kytta – No, because that is all added together.

Radig – You divide that by $2,100.

Kytta – Because of the stack, it turns out to be a costly issue. We decided to look into two other options which might give you a little more flexibility. The one is to drop the RTO temperature to 1,200 so basically it is going to drop your removal efficiencies into the 70 to 80 percent rate depending on your chemical concentrations. So it drops your removal efficiency but it doesn't require a new stack. You can use the existing stack. It does require the permit modification and you get payback in 9 months because you are reducing your gas bill by $800 or about 40 percent. The final option would be to drop the temperature. The reason we pick 1,200 is you are still getting some removal efficiency there. Once you drop below 1,200--at 1,500 we are getting 99 percent removal efficiency. It drops to 75 percent. At 600 you are basically getting no removal efficiency you are just keeping the unit from deteriorating at that point because you are removing the moisture. So at no removal you cut your gas bill down to $600 a month and your payback is quicker but again your removal efficiency you have none. Personally, I don't really like that particular option. Either of those two give you more flexibility so that you can keep operating the RTO and getting in the one case some destruction anyway and get you some flexibility of operation.

Schwindt – The RTO operation do we have to do some changes on the plumbing?

Kytta – It is basically on the programming and the set points so you can burn it at a different temperature.

Neubauer – If you do that, can you manipulate that by going from 600 degrees to 1,500 degrees within reason? Is it manual?

Kytta – Once the change is made we would be able to. This is getting Angvil Manufacturing the RTO manufacturer involved. They would be able to help set it up so yes, we would be able to do the mods to it in the future, but it still requires tweaking your gas usage. If you were to do a complete bypass—we are getting to the point in the system's life that we don't necessarily have to be operating 24/7, 365 days a year. If you are concerned about Buggies 'n' Blues and Fourth of July just shut down for a long weekend. That's another option. Shut the whole system down. It would take a little input from the Department of Health that you are OK with that. So there are a ton of options here that would give you some savings or a lot of savings per month.

Schwindt - How long could we shut it down without causing corrosion in the system? Can you shut it down for 3 days and bring it back up?

Kytta – The RTO? Yeah. Three days should be fine.

Schwindt – Would there be an amount of work in doing that?

Kytta – Not a lot. It would be like we do now when we do the annual maintenance on it.

Schwindt - It would be something Rusty Krikava could handle? Kytta agreed.

Schwindt – I don't think we should do anything through the winter here and give this some thought. Maybe they can try it mid-summer sometime. Maybe just shut the system down for 3 or 4 days just to see what things are like.

Neubauer – If you shut the system down does it run the gas through the RTO and see if there are significant odors coming up?

Kytta – No, we don't want to run it. We can shut it down for 3 days that's fine, but we wouldn't want to run gas through it for 3 days. That's the wet corrosive gas.

Schwindt – There isn't any way of testing to continue operating the recovery system and not the RTO?

Kytta – Right.

Schwindt – When you do maintenance now you shut the entire system down?

Kytta – Yes. Right.

Schwindt – I thought it was just the RTO.

Kytta -- No, the entire system is shut down when you do the RTO. Another thing—this goes back to the water table discussion is that if the water table goes back down again there is a very good possibility that our vapors are going to go back up again. It depends on how quickly the water table goes back down.

Radig – If it does within the next two years.

Kytta – Exactly.

Radig – When you get to the free product endpoint really without going back.

Kytta - If you are unsure right now at your direction we could pursue the permit modification so that if you decide to do it, we have got that option.

Schwindt – So we are below the regulatory limit is what you are saying?

Kytta – On mass and again, on concentration we ran it real quick based off the existing model input it showed that we were fine but then we realized we have that building that the model needs to be tweaked a little bit. On mass we are fine. On concentration we have a little more work to do and then see if the Department of Health agrees with our conclusions.

Schwindt – Being we can't do an experimental operation, I think we will just continue operating for a while until we see what the water table does.

Kytta – The first quarter which is the smallest--discussed that with Krikava yesterday.

Radig – I would be really surprised if it shows that it is going down. From the snow we have had and how wet the fall was, I don't think it will go down yet. If we get a dry summer it may turn the corner.

Neubauer – The consensus would be to operate until spring, take a look at the water table and take a look on what to modify.

Kytta -- I was looking at other options because when I first looked at it there was no easy fix.

Schwindt – We would have to have the water table come down a couple of feet to see if there is any increased gas generation. I don't think that is going to drop real quickly that would be my interpretation. I think we are stuck operating where we are for the foreseeable future. Agree?

Kytta – Yeah. The other option we haven't looked at and this is kind of a whole phased ship to look at a different technology at this point. We had to have something because we knew it was going to be hot early and it was.

Radig – You get large volumes right away.

Kytta – For quite a while and to look at it--getting rid of the RTO completely and going with a flame ox with a catalyst that we could operate that would use a lot less gas.

Radig – Your payout would be years then.

Kytta – Exactly. The one last thought is that…something we are at right now or something pretty close so something to think about.

Ratz Block -- We did an analysis about a year ago so what I did was update the map and the table. I looked back and a year ago I had written a letter to Radig that summarized basically this. So instead of writing a letter I just updated the figure and updated the table. Basically, there is no change to what we looked at before and we still have the five wells on the perimeter of Collins and Main Street that we have seen product in within the last year or two that we would still like for remediation purposes and then we have the one that would be within the building footprint–Well 2003 that still has product in it. So really our recommendations haven't changed as far as which wells could be abandoned. What I am saying is the wells that we didn't see product in before that we were recommending could go if needed. We didn't see any in this past year either so those can still go. The ones that we wanted to stay, we still want to stay.

Radig – Well 2003 that is within the footprint.

Kytta – .41 feet.

Radig – If they wanted to get rid of that, could they move it outside the footprint and replace it or where are the lines that they would have to tie into?

Kytta – The line goes north out of there so that could be moved to the north however many feet it needs to get outside of the building footprint.

Radig – So potentially, they could eliminate all the wells inside the footprint and just replace the one well.

Kytta – Correct. That's the update on that.

Schwindt – As the building was designed--the building that is not going forward the way that was designed they were going to have to get into all the piping that runs under the sidewalk just to get the footings in so that would create an issue as far as putting those footings in along that western edge and southern edge.

Huber – Was that due to their desire for going geo thermo or was that more because their remaining foundation then to get the spread on the footings?

Schwindt – It was the latter because there were existing footings down there that weren't removed when the building was taken out and to get the building to utilize the entire lot the footings had to go over to that area. That's what I recall.

Neubauer -- That's what I recall the plumbing connecting the exterior wells are not running through the middle of that lot, are they?

Schwindt – No.

Kytta – Right, when we installed those, we intentionally ran those along Collins.

Neubauer – So if I wanted to buy this piece of property I could in essence build on the entire 16,250 sq. feet, take Well 2003 and move it into the alley and not have to replace any of the wells on the interior, correct?

Kytta – Correct.

Huber – But if they disrupt the ones in the sidewalk, they pay for it at their cost or how does that all work?

Schwindt -- I think that is what we have done if they disturb our system they would pay for replacement. I think that is what we did with this one over here.

Huber – Has that been resolved yet?

Schwindt – Yes that part of it has. The thing that hasn't been resolved is the damage that they did to the deeper piping that hasn't been resolved yet. As far as them replacing the plumbing and the wells that part has been done. And what we were able to do is and I would assume they would do the same thing here is they were able to save the piping and we have a lot of extra pipe over there. If some happens to be destroyed, all you have to do is re-fuse the piping back together and reuse what's disturbed so there is not a lot of cost involved in buying the piping. You can just reuse it and just have to re-fuse. Cutting the two pipes that come out of the well you end up cutting that off, pull the pipe out of the way, remove your footings and do whatever you need to do and bring the soil back up to the level where the pipe is going to lay again, relay the pipe, re-fuse it and the well is back into operation.

The next major look at this again will be in the spring when they do the full gambit of wells for monitoring so that will be March, April or May?

Kytta -- Yes.

2011 Costs. Kytta – We provided these for the December meeting. The only thing that has changed is the cost of living adjustment. That's included in there now. It may be about 1 percent. Last year we had estimated $287,000 and we spent $247,000 so we came in $40,000 under budget. We are estimating this year at $240,000 for round numbers. For this point in the system as long as we continue to operate MPE that's why we weren't able to reduce it much more than we did. Another thing, the system is aging a little bit. For instance, the scada computer is the computer we use for access we are having issues with. It is over 5 years old now. Small items, but we are going to have to replace that likely this year so we can continue our remote access. We are probably exceeding the memory capacity of it with the things we are downloading on it. That is just an example. And other things, we have been operating for 5 years now will require maintenance and what not.

Neubauer – If we have to operate the system for another 4 years as we are doing today you don't see anything on the horizon that significantly reduces that $240,000?

Kytta – Not until MPE operation is ceased I don't see any significant changes because that is going to be your significant change.

Neubauer – As a guess if there is a best guess you look at 2011, 2012, 2013, 2014 it would be just about 10 years of operation in 2016 so if you look back we are in the life cycle of product. Are we in years 5 to 7 of full operation?

Radig – In 2005 we installed it, but we really didn't get –'06 is when the first phase went on. Full operation would have been '07.

Neubauer -- So if we were to timeline this out and look at dollars and say 2007, 2008, 2009, we would have started the 5 to 7 years of full operation in 2007. Look at 2012, 2013, 2014; 2015 we could start to scale back the operation. Cost for the O&M system would be about another $1 million for 4 or 5 years of full operation.

Kytta – Agreed.

Schwindt – You also have to take into account the utility costs.

Radig -- That would be another $100,000 a year.

Neubauer – Would it be beneficial to say the time frame at 2014 we start a more significant cost savings and start decommissioning?

Schwindt – I don't know about decommissioning at that point in time yet. We might be in the monitoring phase.

Neubauer -- We have three years of monitoring. About 9 years from now shut it down and take the stuff out and do whatever they are going to do with the buildings.

Radig – Based on the Liability Protection law, the Health Department is going to have some amount of time for those environmental insurance policies whether we use 5 years or 10 years that will have to be taken into account as well.

Neubauer – After these presentations, people start asking questions. How much money is going to be left? How much time do we have left? What is going to happen within the next 10 years? We can say it is within this time frame from today and 2020 this is what will be happening and when (roughly). My issue is at some point in time we have to have a good idea of whether we have enough money, which I think we do, to do this. I don't want to sit and spend money just to spend money because we are waiting for decisions. I'm just trying to get a handle on what point in time do we look and say at 2015 or is it 2020 we can answer that question. It depends on Mother Nature, the water table and whatever happens. I don't want to sit here and tell somebody we are going to spend the money till it is gone and then it will be clean. From a standpoint of what point in time do we say here is the next 10 years worth of activities that are planned for this project.

Radig – That's about as reasonable as anybody can predict right now.

Schwindt - In my mind I look at it as real active remediation for the next 2 or 3 years and then a lengthy scale back after that time. Then monitor for another 2 or 3 years then after that time we can start decommissioning if everything goes well. That's what I am thinking.

Kytta – Agreed.

Radig -- Part of the full decommissioning thing might also play into what the terms of the environmental insurance policy are. Are they going to take on a risk of having to reinstall the entire system? Would they take on that risk instead of is the premium going to be big if you leave it in place for 5 years before you decommission everything? And what is the price of the policy going to be?

Schwindt – I would think we could be essentially out of business within that 10-year time period that you are talking about. That would be my goal.

Kytta agreed.

Motion to Adjourn. Schwindt moved to adjourn at 3:22 p.m.; second by Neubauer. All ayes. Motion carried.