ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

PUBLIC HEARING IN RE: WATER)
DISCHARGE PERMIT, FUTUREGEN 2.0)
PROJECT, MEREDOSIA, ILLINOIS.)
)

TRANSCRIPT OF PROCEEDINGS had in the above-entitled matter on the 9th day of October, A.D. 2013, at 7:30 p.m.

BEFORE: Mr. DEAN STUDER, Hearing Officer.

ALSO PRESENT:

MR. MARK LISKA, Permit Engineer, Bureau of Air, Illinois EPA;
MR. ROBERT G. MOSHER, Manager, Water Quality Standards Section, Bureau of Water;
MS. STEFANIE DIERS, Legal Counsel, Illinois EPA.

REPORTED BY:

MS. CATHERINE ARMBRUST RAJCAN,
CSR, RMR, RDR, CRR, CCP, CBC.

DEAN STUDER: We'll begin in a few minutes. I do want to remind everyone, we have registration out front. If you have not registered for this hearing, we are keeping separate registrations from the prior air hearing earlier this evening and this hearing, certainly.

If you have not registered for this hearing and you want to be put on the mailing list, or if you want to make comments this evening, you should register at the registration table in the foyer area.

We'll begin promptly at 7:30; and it's two minutes from now.

(WHEREUPON, there was a short interruption.)

DEAN STUDER: Good evening.

My name is Dean Studer, and I'm hearing officer for the Illinois Environmental Protection Agency. On behalf of Director Lisa Bonnett, and Bureau of Water Chief Marcia Willhite, I welcome you to tonight's hearing. My purpose tonight is to ensure that these proceedings run properly, according to rules, and are conducted in a fair, efficient manner. Personally, I will not be responding to specific technical issues related to permits but will defer such issues to the technical staff with me on the hearing panel.

This is an informational hearing before the

Illinois EPA in a matter of a draft modified National Pollutant Discharge Elimination System, NPDES, permit for Ameren Energy Generating Company's Meredosia Energy Center. The Illinois EPA has made a preliminary determination that the project meets the requirements for obtaining a permit modification and has prepared a draft modified permit for preview.

The authority for the Illinois EPA to issue this modified permit is contained in Section 39 of the Illinois Environmental Protection Act, that's 415 ILCS 5/39. In pertinent part, this section reads, "it shall be the duty of the Agency to issue such a permit upon proof by the applicant that the facility, equipment, vehicle, vessel, or aircraft will not cause a violation of this Act or of regulations hereunder." The decision by the Agency in this matter will be based upon the technical merits of the application as it relates to compliance with this statute and regulations promulgated under it.

The agency decision is not based on how many people desire for the modified permit to be issued or on how many people desire for the modified permit not to be issued, but rather on compliance with the applicable laws and regulations.

Issues at the hearing this evening will be

limited to the proposed modification. Mark Liska, Permit Engineer at the Agency, will outline these modifications in his opening remarks. Other issues relevant to tonight's hearing include compliance with the requirements of the Clean Water Act and the rules set forth in 35 Illinois Administrative Code, Subtitle C, the anti-degradation analysis, potential to impacts receiving waters from the proposed discharge, and water quality in the receiving waters.

I point out that the antidegradation assessment is based on a comparison between wastewater generated from the conventional coal-fired power plant and the effluent from the proposed oxy-combustion Energy Center.

This facility is part of a project called FutureGen 2.0, and more information is provided in the public notice for this permit. Illinois EPA will be reviewing air permit applications as well as the proposed NPDES permit modification. A hearing was held earlier this evening on the air permits. Those with air permitting concerns should submit those comments in writing, and I will make those comments part of the air permit hearing record.

Current plans are to inject carbon into the ground, currently planned for a location in northeastern Morgan County. This injection, called carbon

sequestration, will require an underground injection control, that's UIC, permit from the United States Environmental Protection Agency, Region 5. Illinois EPA will not be addressing issues related to carbon sequestration and UIC permitting. Such issues need to be brought to the attention of US EPA, who has the legal authority to review the UIC permit applications and to issue to the permits for carbon sequestration. For further information regarding the US EPA action, US EPA has created a webpage for the FutureGen project. That website is www.epa.gov/r5water/uic/futuregen/.

Those with comments or questions regarding the carbon storage or the UIC permitting process should visit US EPA'S webpage. I also have that address and can give you that web address made available at the registration area as well.

The Illinois EPA is holding this hearing for the purpose of accepting comments from the public on the draft modified NPDES permit. This public hearing is being held under the provisions of Illinois EPA's procedures for permit and closure plan hearings which can be found in 35 Illinois Administrative Code, Part 166, Subpart A, and in accordance with the requirements of the Illinois Pollution Control Board NPDES regulations at 35 Illinois Administrative Code Sections 309.115 through

309.119.

Copies of these regulations are available at the Illinois Pollution Control Board website at www.ipcb.state.il.us, or if you do not have easy access to the web, you may contact me, and I will get a copy for you.

An informational public hearing means exactly that: This is strictly an informational hearing, an opportunity for you to provide information to the Illinois EPA concerning the permit modification. This is not a contested case hearing.

I'd like to explain how tonight's hearing is going to proceed. First, we will have the Illinois EPA panel introduce themselves and provide a sentence or two regarding their involvement in the permit review process. Then permit engineer Mark Liska, from the Division of Water Pollution Control here at Illinois EPA will outline the draft modifications to the permit. Then Bob Mosher from the Standards Unit will be making a very brief statement this evening. Following this, I will provide further instructions as to how statements and comments will be taken during this hearing and as to the appropriate conduct during this hearing. Following these additional instructions, I will allow the applicants an opportunity to make brief opening statements, and then I

will allow the public to speak.

If you have not signed a registration card at this point, please see either Brad Frost, Barb Lieberoff, or Kurt Neibergall in the registration, and they will provide a card for you. You may indicate on the card that you would like to make oral comments tonight. Everyone completing a card legibly or submitting written comments during the comment period will be notified when the Illinois EPA reaches a final decision in this matter.

Illinois EPA expects to have a final decision in this matter sometime before the end of this calendar year.

A responsiveness summary will be made available at that time. In the responsiveness summary the Illinois EPA will respond to all relevant and significant questions that were raised at this hearing or submitted to me prior to the close of the comment period.

The comment period in this matter will close on November 8th, 2013. If submitting comments by mail, please make sure that they're mailed in sufficient time so that they will be physically received by the Illinois EPA no later than November 8th, 2013. Also, please note that comments should reference Meredosia Energy Center NPDES, or the NPDES number, which is IL0000116.

We have two proceedings open for comment for

this facility, and it's important that the comments reference the appropriate proceeding to ensure that they are included in the correct files to be considered by Illinois EPA.

During tonight's hearing and during the comment period, relevant comments, documents and data will be placed into the hearing record as exhibits. Please send all written documents or data to my attention at Dean Studer, Hearing Officer, regarding Meredosia Energy Center NPDES, Illinois EPA, 1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois, 62794-9276. This address is also listed on the public notice for the hearing tonight. Please indicate the NPDES number or reference Meredosia Energy Center NPDES on your comments. And again, I need that to help ensure that they will become part of this hearing record. Again that NPDES number is IL0000116.

In addition, email comments may be accepted at epa.publichearingcom@Illinois.gov.

All email comments should contain the words "Meredosia Energy Center NPDES" or "IL0000116" in the subject line of the e-mail to help ensure that they are included in the record of this matter.

Please make sure that these words are spelled correctly as emails are electronically sorted and

distributed and may not make it into the record if the words in the subject line are misspelled.

When your email arises, the system should send you an automated reply the e-mail was received before the comment period ends, and the e-mail has been properly sorted and distributed.

Please note that the server can become quite busy in the minutes before the record closes, so you may want to take this into account when submitting any comments by email, as electronic comments received at or after the stroke of midnight as the date changes from November 8th to November 9th will not be considered timely filed.

I will now ask Illinois EPA panel members to introduce themselves, and then this will be followed by Mark Liska, Permit Engineer, and he will be making a brief presentation on the modifications.

BOB MOSHER: Good evening. My name is Bob Mosher, and I'm the manager of the Water Quality Standard Section in the Bureau of Water. And I was the one who reviewed antidegradation assessment for this project and water quality based effluent limits in support of the Permit Engineer.

STEFANIE DIERS: Stefanie Diers, legal counsel for the Agency.

MARK LISKA: Mark Liska, the Permit Engineer for this permit.

Good evening, ladies and gentlemen. Again, I'm Mark Liska, and I'm the IEPA Permit Engineer for the Ameren Meredosia Energy Center, NPDES Permit No. IL0000116.

Their current permit is being modified to allow discharges associated with a first-of-its-kind, near-zero emissions coal-fueled power plant which captures and sequesters carbon dioxide emissions.

In cooperation with the US Department of Energy and the FutureGen 2.0 partnership, Ameren would shut down Units 1 through 3 and upgrade Electric Generating Unit 4 with an oxy-combustion boiler and other technology which would greatly lower both air and water pollution and allow the capture of carbon dioxide emissions.

The oxy-combustion boiler combusts coal in a nearly pure oxygen environment to reduce air pollutant emissions and allow for CO_2 capture. While this facility does separate and compress the carbon dioxide from the rest of the air emissions onsite and compresses it and sends it to a pipeline, the actual injection of carbon dioxide into the ground takes place offsite and is not part of this permit. Dean alluded to that previously, that you have to go through the US EPA Region 5.

The water discharges left after modifying this permit will consist mainly of cooling tower blowdowns, some oil/water separators, and stormwater.

Almost all of the outfalls have changed in this modification. I'll go over the highlights of what's changing here.

The plant used to cool itself using once-through cooling from the Illinois River and back to it. It would use nearly 200 million gallons of water a day of once-through cooling.

The new configuration uses closed-cycle cooling towers instead of once-through cooling and instead only discharges 10 million gallons per day of blowdown from the towers rather than 200 million from before. The closed-cycle cooling system meets the definition of Best Technology Available in accordance with Part 316(b) of the Clean Water Act.

The 200 million gallon discharge from outfall 001 is gone, and the only thing left at outfall 001 is noncontact stormwater from the former Units 1 through 3 roof drains and some other noncontact stormwater that was previously rerouted to outfall 003. Since everything was either preexisting, was greatly lowered, or has been entirely removed, there is no antidegradation assessment for outfall 001.

Outfall 002 is where the main changes have been made. The main Unit 4 cooling tower that previously went to outfall 001 now goes here. The new cooling tower also uses much less water, as was previously said before.

The plant now has what's called a direct contact cooler polishing system which is part of their gas quality control system which cleans the air pollution. The water waste stream from that unit is hot and has some suspended solids and metals in it from the air pollution, so a treatment system was built for it to take the solids out of the wastewater, and that treated effluent now discharges to outfall 002. The stream is brand-new so it does have an antidegradation assessment in the fact sheet for it.

There are also some new oil/water separators around the new equipment which replaced the old ones, but less runoff is expected around the areas, so they are not subject to an antidegradation analysis.

Outfalls 003 and 004 are the bottom and fly ash ponds, which are now called former ponds in the permit. While they do still contain ash from when the plant was previously running as a conventional coal-powered plant, they will no longer receive any new ash as the combusted coal will now be handled dry and put in a landfill. The only discharge from that now comes -- the only discharge

that can come from these ponds is stormwater from storm events. There are no longer any process wastewater discharges to these outfalls, only stormwater.

These ponds will eventually be capped, but it will still obviously take some time. Since the discharge from these outfalls has significantly decreased due to the dropping of ash, there is no antidegradation assessment to these outfalls.

To go over a misconception from the air permit, they had mentioned that there was some wet-ash handling, and their definition of that is different, only in the fact that they consider wet ash just meaning it has some moisture in it. As far as I know, but for -- as far as the water permit goes here, they are not mixing it with any water; all of the ash is handled dry; all of it will be collected and will go to an outside landfill; none of it will be sluiced into any water or into any of these ponds.

So I just wanted to make that clear as well.

Thank you.

DEAN STUDER: And Bob, I believe you had a few brief remarks you wanted to make.

BOB MOSHER: Yes. I want to correct a fact that appears in the antidegradation assessment review. This review is provided in the public notice fact sheet. And

under the heading "Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses," in the first sentence under that heading I made a mistake, I indicated that there would be a bottom-ash handling water that would be an effluent that would be included in outfall 002. That is not the case.

Bottom ash is going to be handled dry. I indicated that fact elsewhere in the antidegradation assessment review, but I -- I had that mistake in that sentence I mentioned that conflicted with my subsequent statement. So cross out bottom-ash handling water from that sentence. That is not the case.

DEAN STUDER: Thank you, Bob.

As hearing officer, I intend to treat everyone here tonight in a respectful and professional manner. I ask the same respect be shown by the hearing panel and members of the audience. You may disagree with or object to some of the statements and comments made tonight, but this is a public hearing, and everyone has a right to express their comments on this draft permit modification and the issues related to it. Arguing or prolonged dialogue with other members here in attendance will not be permitted this evening.

I remind everyone that we have court reporter here making a verbatim record of tonight's hearing. For

her sake and in the interest of keeping an accurate transcript of tonight's hearing, I ask that noise levels in the room be kept to a minimum. Consequently, applause and booing, hissing, jeering will also not be allowed during this hearing.

I will arrange to have the transcript of this hearing placed on the Illinois EPA webpage where the draft modified permit and hearing notice have been posted. I am hoping to this have posted in two to two and a half weeks, but the actual posting date will depend largely upon when I get the transcript back from the court reporter.

Written comments may be submitted to the Illinois EPA at any time within the public comment period which ends on November 8th, 2013. And written comments are given the same consideration as comments that are made orally during this hearing.

Tonight is the only time that Illinois EPA will accept oral comments on this draft modified NPDES permit. Any person who wishes to make oral comments tonight may do so as long as time permits and the statements are relevant to the permit modification.

If you have lengthy oral comments -- excuse me -- if you have lengthy comments, it will be helpful to submit them to me in writing before the close of the

comment period; and I will ensure that they are included this the hearing record as an exhibit. Please keep your comments relevant to the issues involved with this permit modification. If your comments fall outside the scope of this hearing, I may ask you to proceed to your next relevant issue.

For the purpose of allowing as many people as possible to make comments this evening, I will initially allow everyone eight minutes to make comments. After everyone has had an opportunity to speak, if time permits, I will allow those who initially did not desire to speak to do so. If time still permits, I may go back to those that initially ran out of time but still have comments to make.

I also want to avoid repetition. If anyone before you has already repeated a statement or comment that is contained in your comments, please skip over those issues when you speak. Once a point is made, it makes no difference whether that point is made 99 times, it will be considered on its merit and addressed only once in the responsiveness summary.

A similar situation applies when submitting written comments. Illinois EPA is not permitted to take -- to make a decision based on the number of people that either support or oppose this project. Illinois EPA

is mandated to issue a permit if the permit applicant complies with the requirements for obtaining one.

Issues that are relevant in the Illinois EPA final decision are those directly related to the contents of the permit and the regulations governing the issuance of the permit. Simply stating opposition or support to this project will not impact the Illinois EPA's decision in this matter. Illinois EPA only has the power given to it by the Illinois Environmental Protection Act and by US EPA in reaching a final decision on this permit application.

As an environmental organization, Illinois EPA -- excuse me -- Illinois EPA decision-making is limited to those associated with the environmental issues under the purview of the Illinois Environmental Protection Agency. Issues related to global warming or project funding fall outside the purview of Illinois EPA and are not relevant in the NPDES permit modification hearing. Similarly, issues related to air pollution are not relevant in this water permit proceeding.

When it's your turn to speak, I will call your name. Please come forward. When I call your name, if you do not desire to speak, or if someone has already said what you intended to say, you may pass, and I will move on to the next person.

When behind the microphone, please speak clearly. State your name, and if applicable, any governmental body, organization, or association that you represent. If you are not representing a governmental body, an organization, or an association, you may simply indicate that you are a concerned citizen or a member of the public.

For the benefit of the court reporter, I ask that you spell your last name. If there are alternate spellings of your first name, you may also spell the first name if you desire.

Comments are to be directed to members of the hearing panel. This will help to ensure that an accurate transcription of your comments is made.

Prolonged dialogue with the hearing panel or others in attendance this evening will not be allowed.

Are there any questions on how I'll conduct this hearing this evening?

Okay. Let the record indicate that no one raised their hand.

We have a brief statement that will be made by Steve Whitworth, representing Ameren this evening.

STEVE WHITWORTH: Good evening. I'm Steve Whitworth, Director, Environmental Services for Ameren. I sincerely appreciate the opportunity to address the

public and the Agency during tonight's hearing.

In addition, I'd like to thank the Bureau of Water and especially the staff of the Industrial Permit Unit for their efforts to develop a workable permit that fully addresses all applicable regulatory requirements.

This project presents some unique challenges, and the agency has done a commendable job in drafting a permit that takes into account the fact that the FutureGen project is a first-of-its-kind demonstration of new technologies. The FutureGen project will utilize the Meredosia Energy Center to demonstrate a near-zero emissions coal-fired power plant that is integrated with carbon capture and storage. The FutureGen project will showcase utility scale operation of oxy-combustion boiler technology in conjunction with advanced carbon dioxide compression and purification technologies.

When the FutureGen project is placed into service, the Meredosia Energy Center will be markedly changed as noticed -- noted in the NPDES permit notice operating permit modification for this facility. The three existing coal-fired electrical generating units will be retired, and the existing oil-fired electrical generating unit will be repowered. Advanced treatment technology will be used for management of coal-combustion byproducts and treatment of generated wastewater. Fly

ash and bottom ash will be managed dry and placed in a landfill.

As necessary, specific waste streams will be subject to treatment using chemical precipitation and biological treatment to remove metals and nutrients. Key to our wastewater strategy is to reuse water whenever possible to reduce the volume of water withdrawn from the Illinois River and minimize the resultant waste water discharged.

The FutureGen project will reduce the total average daily permitted discharge of wastewater from approximately 189 million gallons per day to about 10.6 million gallons per day. The existing once-through cooling water discharge will be eliminated, and the intake structure will be configured to comply with the US EPA proposed impingement and entrainment standards. The FutureGen project will not use the existing ash impoundments for coal-combustion byproducts. The FutureGen project has been designed so that wastewater discharges will be fully compliant with the US EPA proposed revisions to the steam electric effluent limitation guidelines.

The importance of the FutureGen 2.0 Project is twofold. First, this will be a first-of-its-kind commercial scale demonstration project for capture and

sequestration of carbon dioxide using advanced oxy-combustion technology. The intent of the project is to investigate and resolve a number of technical and operational challenges associated with commercial scale carbon dioxide emission reduction. The project will advance technology for carbon dioxide emission reductions in both the United States and the world. A second and more immediately observable project benefit will be the creation of construction jobs and permanent employment opportunities.

In summary, the issuance of this permit is a positive and necessary step for the FutureGen 2.0 Project at the Meredosia Energy Center.

Thank you for the opportunity to present these comments.

DEAN STUDER: Thank you, Mr. Whitworth.

Lucinda Low Schwartz.

LUCINDA SCHWARTZ: Good evening. Thank you again for the opportunity to speak at today's public hearing. I'm Lucy Schwartz, chief operating officer for the FutureGen Alliance.

The Alliance is a consortium of private sector energy companies formed to partner with the Department of Energy on the FutureGen project. The Alliance's interest in this project is to advance the development and

demonstration of near-zero emissions -- near-zero emissions coal technology.

The FutureGen project is a first-of-its-kind, near-zero emissions coal-fueled power plant that is fully integrated with geologic carbon dioxide capture and storage. As part of the project, a unit in the Meredosia Energy Center will be upgraded with oxy-combustion technology to capture approximately 1.1 million metric tons of CO_2 each year -- more than 90 percent of the plant's carbon emissions. Other pollution emissions and effluents will be reduced to very low levels. Using safe and proven pipeline technology, the CO_2 will be transported by pipeline and stored underground in a storage site in northeastern Morgan County. The project will also include a visitors', research and training center -- the FutureGen Center.

With Ameren Energy Resources, the Alliance has submitted an NPDES permit application for construction of the oxy-combustion power plant, the operation of which would involve some discharges into waters of the state of Illinois. The permit application that Illinois EPA Bureau of Water has reviewed, and which is the basis of the draft permit, provides a detailed description of the oxy-combustion process and the expected effluent discharges at the power plant site. The application and

the draft permit are available for public review, and I won't attempt to summarize that material at this time.

I will briefly note the importance of the FutureGen 2.0 Project to Meredosia, Morgan County, the State of Illinois, the United States, and the world. The FutureGen 2.0 Project in Morgan County will substantially advance clean energy technology and will provide a major economic opportunity for Illinois and local communities. DOE, the State of Illinois, and private sector companies are developing FutureGen 2.0 to help advance a clean energy future.

The FutureGen 2.0 Project will bring $12 billion in overall economic benefits to the State of Illinois according to an independent study conducted by the University of Illinois Regional Economic Applications Laboratory. The study also found that the project will create up to 1610 jobs during peak construction. These jobs will be associated with upgrading the power plant, building the CO_2 pipeline and storage site, as well as constructing the visitor, research and training center. The project will maintain an average of 620 well-paying jobs for the next 20-plus years; and 400 of those jobs will be located in Jacksonville, Morgan County and surrounding counties.

The FutureGen Center -- the visitor, research

and training facility -- will also be an asset to the community and create an excellent economic development opportunity. Expected to open in 2015, the center's design will employ the use of environmentally sustainable principles. In addition to creating direct local jobs, the center will create spin-off service sector jobs and will also purchase goods and services from local businesses.

To conclude, FutureGen 2.0 will prove out the integration of a power plant, CO_2 pipeline, and CO_2 storage site. The results will be used to develop additional projects in Illinois and around the world. Carbon capture and storage using oxy-combustion technology have been used at pilot scale; and it is common industrial practice to safely transport CO_2 through thousands of miles of pipelines in the United States. DOE has seven pilot demonstration CO_2 storage sites throughout the -- around the country, including one in central Illinois. These pilot projects have proven that CO_2 storage can be done safely. The FutureGen 2.0 Project will demonstrate the integration of these technologies at a commercial scale.

Lessons learned from the FutureGen 2.0 Project can be replicated at other power plants, fertilizer plants, cement plants, and other industrial facilities

that emit CO_2. This technology will be essential to Illinois' economic future.

Thank you again for letting me present this information.

DEAN STUDER: Thank you, Ms. Schwartz.

Traci Barkley will be our first comment -- commenter for the public -- I'm sorry.

TRACI BARKLEY: Good evening. My name is Traci Barkley; T-r-a-c-i; Barkley is B-a-r-k-l-e-y.

I'm a water resource scientist with Prairie Rivers Network. We're the Illinois affiliate for National Wildlife Federation. We work to protect rivers and streams for people, fish, and wildlife and make sure the Clean Water Act and Safe Drinking Water Act are fully implemented and enforced in Illinois.

So I would like to recognize that there are some improvements in this permit, including reduced volume of water that will be removed from the Illinois River for cooling, reduced discharges, that there's no more wet ash handling, and reduced air pollution; though I do have a number of questions, and I'm sorry they're a little scattered: we just did the -- were able to -- were able to do the Freedom of Information Act review this afternoon.

But I think largely we have some concerns about

how this is being handled. It's a state-of-the-art facility, though there are some things that are not state of the art when it comes to handling pollution in relation to water discharges.

So I'd like to start first with our concerns for the mussel beds in the Illinois River. It was noted in the antidegradation assessment that a mussel bed was noted by the Illinois Department of Natural Resources across from discharges from the Meredosia facility. And I wondered, one, how recently the DNR had completed the survey in the river. That's one.

Or if Ameren had completed its own mussel survey as part of this proposed project.

BOB MOSHER: I'm not aware of a survey conducted by Ameren. I don't know when IDNR did their last mussel survey at that site, but I do know that IDNR considered the new discharge and wrote a letter terminating consultation and seems to be of the opinion that the new discharge won't harm the mussel bed. And of course that mussel bed existed during the old discharge, which says something also, I believe.

TRACI BARKLEY: So in the permit it looks like there was mixing allowed -- I wasn't clear whether there was allowed mixing or whether there was a mixing zone that had been approved for silver, for thermal loading. And I

wonder if you can explain what their mixing zones -- when mixing zones are granted and if allowed mixing is being allowed.

BOB MOSHER: There's allowed mixing for silver and for temperature. The temperature, given the cooling towers, the final effluent temperature won't be anything like the ones for cooling temperature. It will be more moderated.

And we're granting allowed mixing because at some seasons, at some -- some days it might not meet the water quality standard for temperature, might be a little above that. So we allowed mixing as granted.

It's, again, the -- the size of that thermal mixing zone shrinks a lot from the old facility.

Silver, allowed mixing, again, is being granted. The predicted silver concentration of the effluent is just 1.6 parts per billion higher than the water quality standard. And there's very little background silver in the Illinois River; so again, allowed mixing was deemed to be appropriate to accommodate that substance in this discharge.

TRACI BARKLEY: Can you explain the difference between allowed mixing and a defined mixing --

BOB MOSHER: Allowed mixing is a type of mixing allowed by the board's regulations that does not require

delineation of the width and length of the mixing zone in the river, because there are many instances, including the two we're talking about now, where it is such a small area that would be involved in the physical mixing that it -- it just doesn't make sense to take the time to delineate the dimension of that mixing.

There's, in other words, lots of available mixing. A small amount of that abundance of mixing is being utilized. So allowed mixing gives the Agency the option of recognizing that there's going to be mixing, recognizing that the end-of-pipe concentration or temperature won't meet the water quality standard. But that is going to be a very minor issue.

TRACI BARKLEY: So I think the regs prohibit approval of the mixing zone where mussel beds exist. So I wonder how allowed mixing, then, is allowed where mussel beds exist if mixing zones aren't allowed.

BOB MOSHER: The -- Illinois Department of Natural Resources indicated that the mussel bed was on the opposite side of the river, and the allowed mixing is going to take just feet from the other bank of the river. So there won't be any impact at all where that mixing zone -- I'm sorry -- where that mussel bed is located.

TRACI BARKLEY: So there are a couple other pollutants that we were concerned about. One is

sulfates. It looks like there's going to be over 2,000 pounds per day of sulfates if allowed to be discharged by this permit, yet there's not a permit limit. And I wondered how that might impact mussel populations with those increased salt concentrations.

And then the other thing that was concerning to me is looking at loading of selenium, over -- actually over 11 pounds of selenium will be allowed to be discharged per day.

And I understand that Illinois' concentration -- that our water quality standard is 20 times weaker than the federal standard, so I'm -- I'm just guessing that the reasonable potential analysis would not show these selenium concentrations would be exceeded. But given that selenium bioaccumulates and builds up in the food chain, and given that that is an important river for aquatic life, for water fowl, fish, for mussels, I wonder if you can speak to what evaluation was done about the 11 pounds of selenium that's going to be added each day by this facility.

BOB MOSHER: Well, we could start with sulfate. The water quality standard for sulfate's going to be met at end of pipe according to the predictions. And they are going to monitor sulfate even though there's not a permit limit.

The sulfate, as it mixes with the Illinois River, is going to get down to near background. The overall increase in concentration in the Illinois River is not going to be measurable, it's not going to be discernible.

So there isn't going to be an impact on mussels from sulfate.

Selenium, we have to go by the regulations of Illinois, and currently we have a selenium standard that is what it is. And that standard will be met at end of pipe.

We have done some recent work with selenium, given that you often mention it, I think -- probably why we're doing some work -- and we looked at fish place concentrations in Illinois, and we're not finding anything of concern. Selenium is a -- a problem in arid areas, it's a problem where there's irrigation return water in those arid areas; and yes, fish and wildlife can accumulate it. But Illinois is blessed with lots of water; what selenium does get discharged is very much diluted. And we have -- as I said in our recent work -- demonstrated that there isn't a fish bioaccumulation issue.

And the selenium that will come out of this plant is predicted to be, again, very, very minor in

relation to this -- the river that's receiving it. And we don't anticipate any undue bioaccumulation or any other effect from the selenium.

TRACI BARKLEY: So another time I'm -- another time I'll ask for where the data on selenium was collected from in relation to coal-fire powered plants and coal-mining facilities.

BOB MOSHER: Okay. That's a deal.

TRACI BARKLEY: I don't know how much -- I have a number of questions.

Do you want me to keep going, or -- I want to let other people have a chance.

DEAN STUDER: Okay. Yeah, we'll come back. We've gone about nine minutes.

TRACI BARKLEY: All right. Thank you.

DEAN STUDER: Cindy Skrukrud.

CINDY SKRUKRUD: Good evening. My name is Cindy Skrukrud; C-i-n-d-y, S-k-r-u-k-r-u-d. I'm a clean water advocate for the Illinois Chapter of the Sierra Club.

And few FutureGen's plans for this power plant are being billed as near -- a near-zero emissions plant. And as I'll discuss further in detail, I'm concerned that the proposed discharges to the Illinois River do not reflect the attention paid to the air pollution from this plant.

If this is truly to be a state-of-the-art facility, then Ameren and FutureGen should be doing -- should be using the latest and best technologies to also reduce pollution to the Illinois River. And I -- in terms of organizing my questions, I'm just going to go -- walk through first the fact sheet and then the permit.

And so I have a question on Page 2 of the fact sheet, outfall 002. There's total nitrogen monitoring required there.

I was wondering is this facility going to be doing biological nutrient removal?

I saw a reference I believe in the antidegradation assessment that talks about adding carbon to facilitate denitrification.

BOB MOSHER: Your question refers to the antidegradation assessment review?

CINDY SKRUKRUD: I'm asking why are you requiring total nitrogen monitoring. That's one question.

And two, is there -- is there biological nutrient removal going on, is there denitrification planned at this plant?

MARK LISKA: There's total nitrogen monitoring, there's -- US EPA Region 5 is starting to have us put that in all the major NPDES permits. Just kind of some background checking, they just want to collect some data

on it.

So you will actually be seeing them just about every major permit starting probably with this last round of permit -- major permit renewals. So that's the reason it's in there.

I will have to get back to you on the responsiveness summary about the denitrification. There are a couple of different ways -- couple -- couple of different water treatment plants in this, and I can't -- I don't recall denitrification in this. But I'm not 100 percent sure.

CINDY SKRUKRUD: Okay. Yeah, I brought it up because I saw that the carbon was being added to facilitate denitrification.

And then again, looking at outfall 002, Bob, you just answered Traci's question, you said there would be -- that there would be -- there wasn't going to be a limit on sulfate but there would be sulfate monitoring.

And I don't see sulfate monitoring listed for outfall 002 either on the fact sheet or in the draft permit.

Am I missing something?

BOB MOSHER: You got -- ah...I recommended that sulfate monitoring be put in there.

Mark, did you put it in there?

MARK LISKA: Uhm...nope. I thought it was in Special Condition 16, but it's not. We will be sure to put that in there.

CINDY SKRUKRUD: Great. Then moving on to Page 3 of the fact sheet, and then also then I'm -- I have a question on -- I have a question about outflow B02 related to the description of the new DC -- DCCPS wastewater treatment stream.

It says that -- on Page 4 of the fact sheet, that it will have -- the wastewater will have some suspended solids and metals in it.

And so my question is: What metals are in that waste stream?

Besides the chromium and zinc that I -- well -- I see chromium and zinc limits here. I just wondered what other metals are in that waste stream.

MARK LISKA: Chromium and zinc limits are in there because they're required in 40 CFR123.15. Whether there is or isn't chromium or zinc in the discharge, it's still required by the federal regs.

I don't have with me the exact breakdown to B01. It's in their application. It will be -- most of the metals that are in -- listed in Special Condition 16. So we're monitoring for there. But we have run -- Bob's run water quality analysis, and we've run analysis on the

metals. And they are not going -- they will be met at end of pipe. Most of it will be extremely small and be met at end of pipe with -- met at end of pipe by a factor of 10 or more, even 100 or more.

So we -- that's why we don't have any other limits in the permit for metals. But we do have -- tested for in Special Condition 16.

CINDY SKRUKRUD: Okay. Then down at the bottom of Page 3 of the fact sheet, where it's describing the load limit calculations for outfall 002, I see copper listed there, but it's not listed -- it's not listed as being either monitored or limited at outfall 002.

So I wondered was that an oversight, or should copper be... included in -- should it be limited at 002 -- I mean -- yes, at 002?

MARK LISKA: I believe that's an oversight from the previous permit. I think -- yeah, the previous permit had copper; and I think when I was initially writing the permit, I put it in there, and then the antideg and the water quality analysis showed it wasn't going to -- it met water quality limits by a large factor, so it was removed. But missed it in that spot there.

CINDY SKRUKRUD: Okay. Okay. So then moving on to Page 4, I had a question in the paragraph that talks about the cooling intake structure. One, I had a

question was there still going to be issues with impingement and entrainment there. And when Mr. Whitworth just spoke, he had stated that the facility would follow the latest guidelines regarding impingement and entrainment.

And I wonder, does that then need to be -- I don't see that reflected in the permit.

MARK LISKA: If you give me one moment.

CINDY SKRUKRUD: Actually -- actually -- maybe this is a good time to ask this.

On Page 5 of the draft permit there's Special Condition 10 and Special Condition 11. And they seem a bit redundant because they both are discussing how the facility will satisfy Section 316B.

Maybe it's not redundant because it now sounds to me like there are still concerns about impingement and entrainment.

MARK LISKA: Well, specifically -- Special Condition 10 just notes their 1981, 316B demonstration. Special Condition 11 notes that because they're using closed cycle cooling that is considered BTA, best technology available, in accordance with 316, 316B.

Again, as we noted, their total intake is going to be 1/20th of what they used to -- used to have. They're going from almost 200 million gallons down to

just 10. That alone is going to lower impingement by a huge deal.

DEAN STUDER: We also have used your time limit.

What I will do is if you have a -- a question or two you have to still relate to this, to go ahead and ask those, and we'll address those; and then I'll keep your card up here and we'll come back to you, Cindy. I just want to make sure that we get everyone in the room that has comments to make, that opportunity. And then we'll come back and finish --

CINDY SKRUKRUD: Okay. Well, I had -- I just -- I had one more question. I had asked a question about the DCCPS wastewater, you know, that it says it has suspended solids and metals in it. But I had a -- then in your opening clarification, I think you were responding to a question I had asked at the air hearing -- I just -- I wanted to understand what's the source of the .307 million gallons per day, what's the source of water from the DCCPS?

You said it wasn't going to be sluiced; but where's the water coming from?

MARK LISKA: Okay. Okay. Part of the DCCPS is a cooling tower. I had mentioned that that was a hot stream. So the source of that water is I believe wells -- it's either wells or from the Illinois River --

that will run a cooling tower.

This stream will actually go through a cooling tower to, you know, get rid of the heat prior to then going to a treatment plant that will settle out the metals and suspended solids. It's not anything -- there is no -- none of the coal ash or anything has anything to do with that discharge. It's -- the water is coming from the cooling tower only. It's -- it's more contact cooling water than noncontact cooling water, because it is cooling the water that has some of the suspended solids that they were taking out from the air side. But it doesn't have any coal ash or any of the other -- any of the other stuff you mentioned in it.

CINDY SKRUKRUD: It will have sulfate. That's where the additional sulfate is coming from.

MARK LISKA: Uhm...I believe some of that sulfate, yes. I'm not -- I don't have the exact consistencies of all the internal outfalls on hand right now. I can give you that information later in the -- in our report later.

CINDY SKRUKRUD: Okay. I may have more questions on that later.

MARK LISKA: Sure.

DEAN STUDER: I'll keep your card up here, and we'll come back.

Danny Little.

DANNY LITTLE: In the interest of time and -- I'll --

DEAN STUDER: You'll pass?

DANNY LITTLE: Yeah.

DEAN STUDER: Okay. Elizabeth Niemann.

ELIZABETH NIEMANN: Niemann.

Now that we have a counsel here -- my name is Elizabeth Niemann, N-i-e-m-a-n-n -- I'm going to reask this question from the previous one concerning Illinois Public Act -- can you hear me -- 9716 which reads Section 40 -- this is from an Illinois Public Act.

Permitting, the State of Illinois shall -- not using the word "will" -- shall issue to the operator all necessary and appropriate permits consistent with the state, federal and corresponding regulation. The State of Illinois must allow the operator to combine applications when appropriate, and the State of Illinois must otherwise streamline the application process for a timely permit issuance.

Does this mean that the Illinois EPA, as representative of the State of Illinois, is mandated by the above section to grant all necessary permits, no matter what?

STEPHANIE DIERS: Is that out of the Illinois EPA Act?

ELIZABETH NIEMANN: No, it is not. This is an Illinois Public Act. This is on the Clean Coal Act. This is Section 40.

STEFANIE DIERS: I'm not sure what reference you're referring to because we look at Section 39 of the Illinois Protection Act that tells us how we issue our permits. And if they're meeting our state regulations and the Clean Air Act, we're going to issue the permit based on the regulatory language.

That Act you're referring to, I'm not sure what it is, but we can answer it in the responsiveness summary, because I don't know.

ELIZABETH NIEMANN: Okay. You might want to take a look at that.

And then I have a question -- and this may be overlapping into air.

I find it rather unsettling that under the water permit all the cooling tower chemicals are listed. And if you've ever been around a cooling tower, things can go wrong, and some of these chemicals can be discharged to the air.

So I would like to -- I will address these in written comments, but I do feel that some of these chemicals are very, very bad as an air pollutant. And those were not addressed.

Thank you.

DEAN STUDER: Yes. You address those in writing in the air, we'll address them in that proceeding.

Terry -- Terry Denison.

TERRY DENISON: Good evening.

Raise this up a little bit.

Good evening. My name is Terry Denison; Terry, T-e-r-r-y, D-e-n-i-s-o-n. I'm president of the Jacksonville Regional Economic Development Corporation, and we service Morgan and Scott County, of which Meredosia is a part of Morgan County.

I'm going to be very brief, but I'm going to talk about -- a little bit about the economic impact.

Miss Schwartz just mentioned a moment ago about an economic impact study that was done by the University of Illinois. It is a very positive report, it's a very good report for our whole region, and in fact for, as she mentioned, for the whole state of Illinois.

It's going to impact both wages, salaries, jobs, and taxes.

And one of the things just to mention on the taxes is the -- this power plant used to be a -- used to be an Ameren plant, and they were -- they paid, of course, real estate taxes. And with the closure of the plant, there was concern in the community about --

particularly about the school system, the building of which we're in, where that would come from.

And FutureGen, with keeping it open and keeping the maintenance on it, has continued to pay the real estate taxes. So it's been a big asset for the area and particularly for the local community.

So with the combination of those factors, FutureGen is very important to our area, it is a very good thing. As mentioned in the -- earlier, over close to 60 percent of the power in rural America is powered or created through coal. And so coal is very important to -- to rural America. And we're very much a community in favor of it.

I have a 30-member board, and we very much support FutureGen and its efforts. And we support them and encourage you to issue the permit.

Thank you.

DEAN STUDER: Thank you, Mr. Denison.

Is there anyone who has not spoken in the water proceeding this hearing that would like to make comments on the record?

Okay. Let the record indicate that no one raised their hand.

We have, I believe, two people that have spoken that have additional comments or questions.

I will go ahead and call those first, and following those two, I will ask if we have anyone else, if time allows.

Traci Barkley was the first -- is the first.

TRACI BARKLEY: Traci Barkley, Prairie State Network.

I'll try to get close.

So I see this is a re -- it's a modification of a previous permit that was issued to Ameren Energy. And going through the file I noticed that there were a few previous waste streams and discharges, for example from 003 and 004, that were not included in this permit. And the language that was used was that they were not associated with FutureGen.

So I -- and that was ash pond discharges, which I understand they're not going to be used anymore. But I wondered how -- well, one if the permit area is the same from the previous permit to now with the -- issued to this FutureGen project.

And what will happen with -- with some of those outfalls that are not being claimed by FutureGen but still are concerned to receiving waters?

MARK LISKA: Could you -- was there any -- is there any stream in particular 003 or 004 that was previous that's not on there now?

TRACI BARKLEY: I guess it's more of a general question of is FutureGen assuming liability for everything within the permit area that was previous -- previously Ameren energy; or is there some sort of split so that Ameren Energy still has responsibilities on site, and FutureGen doesn't?

Because at least -- you know, I saw in a couple -- and I will have to go back in my written comments, but there are a couple of times where there were outfalls that were previously associated with Ameren's operation that are not associated with FutureGen; but in terms of stormwater runoff or let's say the bottom ash pond or the fly ash pond, those -- those waste disposal areas still exist, still with the rates that are going to be attributed to some -- some loading to the old -- I'm trying to give you something concrete to respond to.

But the big question is: Is FutureGen through this permit assuming liability and responsibility for everything that happened in that activity area?

MARK LISKA: Well, we'll have to answer that in the responsiveness summary.

TRACI BARKLEY: Okay. Because I would like to note that there have been ground water -- for some of the ground water wells that are onsite there have been ground

water quality for -- exceedances of ground water quality standards for antimony, arsenic, boron, chromium, and thallium. And in February of this year 2013 there was a notice of intent to pursue legal action at least written; and I wasn't clear whether it was actually ever issued, but that was for exceedances of ground water standards for pH, boron, manganese, arsenic and iron.

So I guess one question is: Agency.

Was there a violation notice issued by Illinois EPA to Ameren for those ground water quality exceedances?

MARK LISKA: I don't know anything of those other legal matters. We'll have to answer that in the responsiveness summary.

TRACI BARKLEY: Okay. Then another question I would -- if the answer is yes, that was issued, then the question would follow, has that case been referred to the attorney general?

And has a compliance commitment agreement been agreed upon between Ameren and the Agency?

MARK LISKA: We'll have to answer that in the responsiveness summary.

TRACI BARKLEY: And then the final question on that line is how does -- if this operation is taken over by a joint partnership between the FutureGen Alliance and Ameren Energy, who's ultimately responsible and who will

be dealing with this legal action in the future?

MARK LISKA: We'll need to answer that in the responsiveness summary.

TRACI BARKLEY: Another question has to do with previous operations. So I understand that PCBs were being generated onsite with the previous operation under Ameren, and I wondered -- I didn't see anything in the permit that had to do with either limits for PCBs or monitoring for PCBs.

So I wondered if those -- if there's still concern that they exist onsite, and if there's potential for those to be discharged into the Illinois River. And the reason I ask is because the Illinois River is listed as being impaired for PCBs right now.

MARK LISKA: I believe federal law requires that there be no discharge of PCBs.

TRACI BARKLEY: So is the stormwater pollution prevention plan being required by this permit to minimize -- to -- when required best practices onsite to minimize the chance that any pollutant like that is discharged into Illinois River?

MARK LISKA: Any stormwater pollution prevention plan would have to minimize all impacts. It would have to include that.

TRACI BARKLEY: Is there one that's already

developed for this facility, and is it required by this permit?

MARK LISKA: We have a -- let me find the condition number -- Special Condition 15 says we have BAT, BCT, that's best available -- I forget what that stands for. But pretty much they treat all of their stormwater that's outfall 001 -- actually, that's noncontact. But everything in 002 and 003 and 004 of course, that's all treated stormwater, which constitutes -- so those have effluent limitations associated with them. And we consider that being the most...

TRACI BARKLEY: My read of this is no pollution prevention plan will be required for such stormwater. So if that's the case, then there isn't any prescribed plan, either developed by the Agency or by Ameren or by FutureGen that what practices they'll take to minimize pollution, because the Agency's determined that the effluent limits in this permit constitute the BAT, ACT.

So I just wonder how this commission protects against discharges of PCBs or other pollutants that don't have effluent limits in the permit.

MARK LISKA: Okay. Their stormwater is all treated, so we give them the -- ACT/BCT because since they have limits on all these things, that is considered more stringent than simply having a stormwater pollution

prevention plan. We are giving them the more stringent of those two options.

TRACI BARKLEY: Okay. I guess I'd like to respectfully ask for the stormwater prevention be prepared by Ameren, required by the permit, and that monitoring for PCBs be put in the permit considering that the river is already impaired and they were just a few years ago generating PCBs on site.

MARK LISKA: Thank you for your comment on that.

TRACI BARKLEY: Then I wonder where the coal will be coming from. The reason I ask is because there's a difference in the quality of the coal, the pollutants that are associated with Powder River Basin coal versus Illinois River coal. And I wonder in the evaluation of what is expected to be in the discharges from this site, were you looking at -- what type of coal were you looking at?

Is there an opportunity for the Energy Center to change the type of coal they're burning; and if they do, are they required to have it reworked through the Agency, or are they required to let you know that they're changing the quality of their coal?

How does that work?

MARK LISKA: I don't have that information with me exactly what they're using. I'll have to get back to you

in the responsiveness summary on that.

TRACI BARKLEY: I just have a few more comments.

One, given that we have multiple coal ash contamination sites throughout Illinois, and we're glad the water's not going to be used anymore to transport coal ash and to store coal ash in wet impoundments, but with dry ash handling comes fugitive dust.

And I just wondered was that considered by the Agency when you were looking at what was going to be settling and possibly being stormwater discharges. And what -- what practices are going to be employed at the site to reduce fugitive dust on that center and also leaving the center for area residents.

MARK LISKA: We think that's an air issue that they have to deal with. We don't think it's an NPDES permit issue. We'll have to get back to you on that.

TRACI BARKLEY: We can ask that question --

MARK LISKA: Maybe send the comment too. We still have time.

TRACI BARKLEY: I would suggest it's also a NPDES issue, because when you have dust in the air, it is settling on the ground. I mean, that's something considered at coal mines where coal is stored, and certainly at this site there will be coal stored and ash for some time period.

So I think that is an important part of what's going to be settling onsite and running off.

But that leads me to my next question, which is I understand that the ash is being handled in a dry manner and that it will be taken to an offsite disposal location. But I don't see anything in the permit that references temporary coal ash storage facilities or how they will be transported, or any monitoring of coal ash pollutants.

So I just wondered what the plan is; you know, if -- if the coal ash is going to be collected from the boiler and immediately taken over to the offsite landfill, or if there's going to be temporary storage spot. And if so, then that seems like that needs consideration for stormwater runoff as well.

MARK LISKA: C02 is coal handling contact stormwater. And they do have treatment for any stormwater that goes through that stream.

TRACI BARKLEY: 002?

MARK LISKA: C02. That's the internal -- ultimately going to 002.

TRACI BARKLEY: So the coal-handling contact stormwater is all -- is coal and coal ash stormwater?

MARK LISKA: I don't think the coal ash is part of that. I'll have to get back to you on that.

TRACI BARKLEY: Okay. Then the DCCPS system, from a letter from Ameren to the Agency, it was noted that the concentration of the wastewater pollutants in DCCPS would be closer to 4,000 milligrams per liter, but they were agreeing that the 1678 water quality standard for sulfate would still be able to be met in the pipe.

And I just wonder what the plan is, if it's going to be blending of that waste stream with another waste stream so they can dilute that sulfate concentration down, or how they're going to get from 4,000 on average down to 1678 that is the standard in place.

MARK LISKA: All of those internal outfalls, A02, B02, C02 and D02, those all go to outfall 002. That's why they're all numbered with an 02 at the end. But those are just all internal outfalls to -- because of regulations, federal regulations or other regulations, they do have to have some testing prior to being -- prior to mixing together and going -- and ultimately discharging to 002.

TRACI BARKLEY: So I understand that there was a mixup and the sulfate monitoring report wasn't put in the permit; but when I look at 0 -- when I look at what's coming from the DCCPS system, that seems like it's going to be a majority of what's coming out of 002. And that

that's going to be constantly streaming. And what that is going to be blended with is an emergency outflow -- emergency overflow which is going to be intermittent. Coal handling contact stormwater which requires actual rainfall for that stormwater develop -- which in large part is not actually going to be the case.

And if you go to D02, that's also effluent discharge. So I think it -- I guess I'd like to see a reevaluation of whether the sulfate standard can actually be met. You're starting at 4,000 with a major waste stream, and they have to get all the way down to 1678; and you're relying on pretty small intermittent discharges to dilute that down on a daily basis. That -- that doesn't add up.

MARK LISKA: You said that the majority comes from B02?

Is that what you said; or C02?

TRACI BARKLEY: Well, seems like the majority of that 002 outfall is coming from B02.

MARK LISKA: It's not. B02 is 0.32 million gallons per day. The majority is the actual main cooling tower. That's .032 out of 9.78. That's -- it's actually going to be diluted by whatever .32 by 978 -- 30 or 40 times.

TRACI BARKLEY: Got it.

MARK LISKA: Got it.

TRACI BARKLEY: Thank you. Then I think my last question has to do -- there was mention of biological treatment being used on the waste treatment for the DCCPS for mercury, nitrates as selenium. I was curious what biological treatment was going to be used.

MARK LISKA: I can't recall exactly what it is. I'll have to get back to you -- I mean, in the responsiveness summary.

TRACI BARKLEY: Okay. And then one more question. Just when -- what do you anticipate the permit cycle looking like for the coal ash landfill, and will there be a public process for that?

For the dry ash, it's going to be generated at the site, going to be taken offsite and disposed of in landfill.

Will there be any permit issued; will there be a way for residents to participate in that public process?

MARK LISKA: We'll have to answer that in our responsiveness summary.

TRACI BARKLEY: Okay. Thank you.

DEAN STUDER: Thank you, Traci.

Cindy, did you have additional questions or comments?

CINDY SKRUKRUD: Yes, I do. But the remaining questions I have all have to do with antidegradation

assessment.

So I wanted to ask some questions about the sections of the antidegradation assessment that include the identification of the proposed pollutant load increases and the section assessment of alternatives for less increase in loading or minimal environmental degradation.

So in the identification of proposed pollutant load increases, it stated that the pollutants that was -- quote, pollutants that will see an overall increase in loading are sulfates and phosphorous. The source of the additional sulfate is mainly the DCCPS. The source of additional phosphorus is mainly from the anticorrosion additives to the DCCPS and CPU.

Then when I turn to the assessment of alternatives, I don't see any assessment for ways to minimize sulfate and phosphorous loadings.

So I'm concerned, because typically, you know -- typically there's -- when we see these antidegradation assessments, there's a list of the alternatives that have been considered. So that leads me to be a bit concerned that this permit's been rushed a bit. And when you tell me you're going to have a decision back by the end of the year, then it sounds to me like you guys are rushing.

So I -- I wanted to talk a bit about some

alternatives that I think should be considered. For one, I wondered with regards to phosphorus, it's stated that phosphorous is being added as an anticorrosion agent. So what other -- were there other anticorrosion measures considered?

Second -- okay. Bob's got an answer.

BOB MOSHER: The search for anticorrosion additives for industrial piping systems goes on to -- you know, we went from the days of zinc or chrome being used for that purpose, and we said, no, can't do that. We don't want all that heavy metal going out to the river.

Along came phosphorus to replace those metals. And no one likes phosphorous either, much.

And we asked -- we talked to the companies that are in the business of coming up with those treatment additives; and you know, do you have anything that doesn't have heavy metals or phosphorus?

And several years ago they said, well, we're working on it. And so far we have not gotten to the point where there -- there is a product that -- that I know of. So phosphorus is the lesser of two evils. And it's -- it has to be used: They can't let their system corrode.

So we're -- we're stuck with phosphorus for the time being.

CINDY SKRUKRUD: So given that, there's -- this permit has a one milligram per liter phosphorus limit in it. But as you're well aware, the facilities throughout the state are being asked to do more to remove phosphorus from their effluents, because we as a state are trying to not have dissolved oxygen problems in our streams, or trying to reduce algae growth, or trying to help reduce our nutrient loading to the Gulf of Mexico, where it's creating big problems, big dead zone in the Gulf of Mexico.

So I know that we are asking other facilities throughout the state to look at -- at reducing their phosphorus down, not to 1 milligram per liter, but down to .5 milligram the per even -- milligram per liter .1 milligrams per liter.

So I think that's another consideration for this facility that's going to be a state-of-the-art facility, is to -- to -- to use those techniques to -- I know they're adding the phosphorus, but then to remove it before they discharge to the Illinois River.

I wanted to ask what phosphorus-removal method is -- is being used at this -- is proposed to be used at this facility.

MARK LISKA: That is listed in the alternatives to being treated by chemical precipitation and biological

treatment to reduce. And that's generally what's done in other places that discharge phosphorus, usually municipal plants. So they are treating for it.

If I recall from -- maybe Bob can remember better, but the limit in there is 1 milligram per liter because that's what the state law is for industrial. But the actual amount that we're calculating is going to be far below that. I want to say it's going to be around .3 or less. And that's even before treatment.

But we still have to put that 1 milligram per liter limit in it because the statute -- the industrial statute, anyway -- where is it -- 35 IAC 304.123(g)(2) states that we have to use the 1 milligram per liter if they have the potential to discharge more than 25 pounds per day.

CINDY SKRUKRUD: I agree with that, but I would also say under antidegradation you can certainly put in a more stringent limit than 1. Certainly -- we certainly have examples of maps in the state that have limits of .8; and as I said, there's plants that are now being asked to look at the -- those levels down to a limit of .5, even .1.

So again, I -- not to repeat myself, but this is going to be a state-of-the-art facility; we should be -- we should be state of the art in terms of reducing our

phosphorus loading to the Illinois River.

I wanted to ask also about -- about the sulfate discharges. You know, what measures have been considered to minimize the sulfate discharges from this facility. I didn't see any consideration of alternatives.

BOB MOSHER: Well, this is a type of facility that we have not encountered before in the -- you know, unique. We are given the predictions from FutureGen, we have the discharge such that it's meeting water quality standards for all but two parameters, and then really very low levels above water quality standards even for those.

Knowing how low can you go with something that's -- that's brand-new is very difficult. We've impressed upon FutureGen all along that, you know, your goal is to -- to do the best job you can. You know, I'm sure they're aware of that by now.

And I don't think we've got that experience yet. We can gain it when we look at monitoring, when FutureGen has a better feel for how the plant will operate. But to -- to pick out one parameter and say, well, we're just not, you know, happy with sulfate, we don't have a basis for telling them at this point, you can do better.

It's -- there's a comfort factor in that, in that they will meet the water quality standard at end of

pipe.

MARK LISKA: Just to add something to that. They're not just creating the sulfate and other constituents, they're just not creating them and then dumping them. B02 to BCCPS, it does have a completely separate wastewater treatment system just for that discharge. That knocks out most of it.

For C02, the coal handling, they do have a completely separate wastewater treatment system.

Again, listed in the alternatives, chemical participation, biological treatment. There's a couple other things that knock out the suspended solids, knock out as much of the sulfate as they can. They are using good treatment for these things.

So they're not just -- they're just not dumped and discharged. They are treating for them and getting out as much as they can prior to discharge.

CINDY SKRUKRUD: So there's -- what percentage of the sulfate is going -- how does this -- what happens to that other sulfate that they remove?

Where does...they're removing it in the treatment process, and where -- if it's not being discharged; then where is it going?

I just wonder if you have a sense -- if you know how much of the sulfate that's captured on the site is

being removed by the treatment methods.

MARK LISKA: I don't have any exact percentages on the -- on the internal streams with me. I'll have to get back to you on that.

Most of the time something is -- gets precipitated out, and it will be taken out and disposed of dry; or sometimes they sell it in the case of sulfate, because that's -- people will buy that.

They -- they do have -- get rid of it. It's generally taken out dry and disposed of or sold in some way. But I don't have any specifics on that with me.

CINDY SKRUKRUD: As Traci said, in the FOIA materials that she reviewed, is that if the concentration of sulfates are as high as 4,000 milligrams per liter, then that waste stream -- it seemed to me that concentration is high enough there should be ways to reduce that further.

And under antidegradation, I think we're compelled to ask them to do their very best and -- I recognize that there's many things that they're -- they're -- that they will be reducing the discharges of. But I don't think that means that we should -- shouldn't also ask them to be looking at ways to minimize the discharges of phosphate and sul -- phosphorous and sulfate which they are planning to increase their --

increase their loading of.

MARK LISKA: We'll answer that in the end of...

CINDY SKRUKRUD: Okay. Thank you.

DEAN STUDER: Thank you all.

Is there anyone in the room that has any additional comments they'd like to make before I adjourn this hearing?

Okay. I remind everyone that the record is open in this proceeding until the 8th of November. I thank you for your attendance and your patience this evening.

Thank you. This hearing is adjourned.

WHICH WERE ALL OF THE PROCEEDINGS

HAD IN THE FOREGOING

PUBLIC HEARING ON THIS DATE.

(WHEREUPON, the hearing was

concluded at 9:08 p.m.)

STATE OF ILLINOIS)
) SS:
COUNTY OF DU PAGE)

I, CATHERINE A. RAJCAN, a Certified Shorthand Reporter of the State of Illinois, do hereby certify that I reported stenographically by means of machine shorthand the proceedings had at the public hearing aforesaid, thereafter reduced to typewriting via computer-aided transcription under my personal direction, and that the foregoing is a true, complete and correct transcript of the proceedings of said public hearing as appears from my stenographic notes so taken and transcribed under my personal direction.

I further certify that my certificate attached hereto applies to the original transcript and copies thereof, signed and certified under my hand only. I assume no responsibility for the accuracy of any reproduced copies not made under my control or direction.

IN WITNESS WHEREOF, I do hereunto set my hand at Wheaton, Illinois, this 19th day of October, 2013.

Certified Shorthand Reporter

C.S.R. Certificate No. 084-002503.