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UNITED STATES OF AMERICA

ENVIRONMENTAL PROTECTION AGENCY

BOSTON REGION

In the Matter of:

PUBLIC HEARING:

RE: NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PUBLIC SERVICE OF NEW HAMPSHIRE, MERRIMACK STATION, BOW, NH
NPDES PERMIT NO. NH0001465

New Hampshire Department of Environmental Services
29 Hazen Drive
Concord, New Hampshire

Thursday,
November 3, 2011

The above entitled matter came on for hearing, pursuant to Notice at 7:15 p.m.

BEFORE:

DAVID WEBSTER, Chief, Industrial Permits Branch
JOHN KING, Permit Writer
New England Region I
5 Post Office Square
Boston, MA 02109

I N D E X

P R O C E E D I N G S

(7:15 p.m.)

MR. WEBSTER: Good evening ladies and gentlemen. My name is David Webster. I'm the Chief of the Industrial Permits Branch of the New England Regional Office of the Environmental Protection Agency also known as the EPA. Also joining me shortly here will be John Paul King, the EPA's permit writer for the permit which is the subject of the hearing.

This hearing concerns the issuance of the National Pollutant Discharge Elimination System or NPDES, or "Nipdees" permit for the Public Service New Hampshire, or the PSNH Merrimack Station facility in Bow, New Hampshire.

The hearing shall come to order.

This permit is for the following facility, PSNH Merrimack Station, permit number NH0001465.

This permit will be issued to Public Service New Hampshire Merrimack Station in final form upon consideration of the comments received during the public comment period including those received during this public hearing.

The NPDES program issues permits to all facilities that discharge into waters of the United States. The permit writer develops effluent limitations as well as monitoring and reporting requirements based on information from the facility, Federal regulations, State water quality

standards, technical guidance published by EPA and the State, State and Federal policy.

More information on the NPDES program is available at the NPDES program summary handout entitled water permitting 101. Copies of this were available this evening.

Along with this document, there is a list of web addresses that you can find additional information on the NPDES program. And I believe, there was a handout at the website for -- specifically for this Draft Permit and supporting materials.

EPA released the Draft Permit for public notice for the facility on September 29, 2011. The public comment period began September 30th, and as initially announced, was to run through November 30, 2011. A legal notice for this public comment period and for this hearing was published in the Concord Monitor on September 30, 2011.

Since the beginning of this public comment period, EPA received requests for an extension of the public comment period from Public Service New Hampshire and others. After consideration of these requests, EPA extended the public comment period for an additional 90 days.

The public comment period now ends February 28, 2012. Public notice of this extension to the public comment period is being announced here tonight as well as being published on November 1, 2011 in the Concord Monitor.

Since September 29th, the Draft Permit, Fact Sheet and the supporting documents have been available to interested parties to review and comment on. The Fact Sheet describes the type of facility, the type of quantities of waste, a summary of the basic -- and the basis for the Draft Permit conditions and significant factual legal and policy questions considered in preparing the Draft Permit.

Here are some -- there are several attachments to the Fact Sheets. And I will point out two of them because they provide the rationale for several important permit provisions. One is Attachment D, which is the Clean Water Act NPDES permitting determination for the thermal discharge and the cooling water intake structures at Merrimack Station in Bow, New Hampshire. And the second is Attachment E, a determination of the technology based effluent limits for the flue gas desulfurization waste water at Merrimack Station in Bow, New Hampshire.

The Draft Permit and Fact Sheet, including those attachments, were all made available on EPA's website and they still are. The website at http://www.epa.gov/region1 -- with a numeral -- /npdes/merrimackstation -- all one word.

You have probably received or have seen copies of the Draft Permit and the Fact Sheet without the attachments. But, in any case, some of them are available, the Draft

Permit and the Fact Sheet without the attachments at this hearing as well as being on the EPA website, of course.

Tonight's hearing is an formal non-adversarial hearing providing interested parties with the opportunity to make oral comments and to submit written comments on the proposed permit. There will be no cross examination of either the panel or the commenters. Any questions directed to a commenter from the panel member will be for clarification purposes only.

This public hearing is being recorded. A transcript will be part of the official administrative record for this permit. However, in order to ensure that -- the record's accuracy, we highly recommend that you submit written statements in addition to your comments made tonight.

As previously mentioned, the public comment period will close at midnight on February 28, 2012. Following the close of the public comment period, EPA will review and consider all comments received during the public comment period, both in writing and at tonight's public hearing.

EPA will prepare a document known as a Response to Comments that will describe and address the significant issues raised during the comment period and what provisions, if any, of the Draft Permit have been changed and the reasons for the change.

The Response to Comments will accompany the Final Permit for the Public Service New Hampshire Merrimack Station facility when the final permit is issued. Notice of the availability of the Response to Comments and the Final Permit will be mailed or e-mailed to everyone who commented on the Draft Permit.

Anyone who wishes to contest the Final Permit must file a petition for review or appeal with the Environmental Appeals Board, also known as the EAB. A couple of important things to remember if you are considering appealing the Final Permit.

First, the petition for review or appeal must be received by the EAB within 30 days of the date the Final Permit is issued. More information on exactly how to calculate this time period will be included in the attachment to -- in an attachment with the Final Permit.

Second, only persons who filed comments on the Draft Permit during the public comment period, or who provided comments during the hearing tonight may petition the EAB to review the Final Permit conditions.

Third, any person seeking to review a permit decision must raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position during the public comment period, including this public hearing.

Issues or arguments that are not raised will not be considered by the EAB on appeal. There is one exception to the above. Any person who failed to file comments or failed to participate in the public hearing, may petition the EAB only to the extent of the change in the Draft to the Final Permit. More information on the appeals process can be found at the EAB -- the EPA website and at the time of the Final Permit issuance.

To begin your comments, I will first ask if there is a representative of the applicant, Public Service New Hampshire who wants to make a statement. I will then request statements from Federal, State and local officials and then, members of the public audience.

I will use the attendance cards to call on people who wish to comment. These cards will also be used to notify persons of our subsequent Final Permit decision.

If, when I call you, we would ask the speakers to come to the podium, right up here where there is a live mic that I believe is on. And that I ask you, before you begin your statement, to please identify yourself and your affiliation if you have one for the record, if you would.

It looks like a fairly large group that wish to comment tonight. In order that the participants are allowed to express their views, I ask that you try to limit your comments to five minutes. If, at any time, you are asked to

stop and you are not finished, I will ask you to defer the remainder of your comments until each person has an opportunity to comment. Then, if there is time at the end of the meeting, and I fully anticipate that there will be time for everybody to comment, we will give you a short opportunity to finish your comments.

If you have a written statement, you may read it if it is done in five minutes. If not, I'd ask you to summarize it.

In either case, I encourage you to submit written comments tonight before the close of the public comment period on February 28, 2012.

So, I understand that the permittee does not have a stated representative. So, I'm going to go move towards the -- Representative Bill Ohm, State Representative from Nashua. Thank you.

MR. OHM: Thank you, Mr. Webster.

For the record, my name is Bill Ohm. I'm a State Representative of Hillsborough 26 which is the district representing South Nashua.

Let me make sure I understand this proposal.

As I understand it, the EPA in Washington is asking the taxpayers of New Hampshire to spend $112,000,000 on pollution mitigation. What is this pollution mitigation? Is this mercury that goes into the tissue of fish that we

eat? Oh, no, it's not that. Is this sulfur dioxide, something that produces acid rain and harms the forest of the northeast? No, no. It's not that. Is this $112,000,000 for CO2? No, it's not that. So, what is this for?

This is for clean water, warm water. This is to mitigate warm, clean water at a cost of $112,000,000 to taxpayers of New Hampshire for the PSNH customers of my district in Nashua. That's $85 for every man, woman and child of New Hampshire to prevent warm clean water from going into the Merrimack River.

I'm very skeptical that this is an appropriate expense for the taxpayers of New Hampshire. And I urge the EPA to rescind this requirement of a thermal variance for the Bow power plant and indeed, grant Public Service New Hampshire the requested thermal variance so they can get down to the business of supplying low cost power to the taxpayers of New Hampshire.

Thank you.

MR. WEBSTER: Thank you very much.

I would next call on Timothy Twombly, State Representative from Nashua, New Hampshire.

MR. TWOMBLY: Excuse me. Could I have Mr. LeBrun go before me?

MR. WEBSTER: Sure.

MR. TWOMBLY: Thank you.

MR. WEBSTER: Representative Don LeBrun is going to be next.

MR. LEBRUN: For the record. My name is Don LeBrun, a representative from South Nashua, Wards 589. Thank you for the opportunity to speak. I have a letter from Speaker of the House, William O'Brien, that I would like to read and submit for the record.

The letter is addressed to Lisa P. Jackson, Administrator, US Environmental Protection Agency, 633 3rd Street NW, Washington, DC.

"Dear Administrator Jackson. I am writing to express my concerns with the recent Draft National Pollutant Discharge Elimination System Permit mandating a water cooling facility at Public Service of New Hampshire's Merrimack Station in Bow, New Hampshire.

The EPA's Draft Permit shows great disregard for our State's economy and is a significant threat to jobs in our state. At a time when we're doing everything we can to make New Hampshire more competitive and attractive to employers, the Federal Government is seeking to punish our residents and small businesses with higher electric rates through unnecessary regulation.

The Granite State already has among the highest energy costs in the nation. And this Federal mandate will

make these costs even higher and make it harder to expand our economy and grow good new jobs here.

If the current administration is truly interested in helping create new jobs, it would stop -- it would stop the over zealous regulatory mandate immediately. We accept the fact that the Obama administration will not being assisting our country and allowing businesses to create new jobs. In New Hampshire, all we ask is that, it not actively work to prevent job growth here.

The working families and small businesses of New Hampshire simply can't afford EPA adding a 112,000,000 mandate onto our electric bills. I also object to the EPA attempting to burden New Hampshire electric customers with costly mandates that is based on regulations that have not been approved.

As the agency recognized in its recent letter extending the comment period on this permit, it remains unavoidably uncertain at the present time when any new final regulations will go into effect under Section 316B. The EPA should not burden New Hampshire electric customers with the cost associated with regulation that is not legally in effect.

Finally, the Obama administration and EPA have shown a disregard to New Hampshire's residents by scheduling this public hearing in the midst of one of our states worst

storms -- storm related electrical outages. At a time when more than 40,000 New Hampshire businesses and families are suffering through an extended period without basic electric services, due to the recent snowstorm, and our state is relying on PSNH to devote all of its resources to the restoration effort, the EPA has forced PSNH to divert resources away from the critical effort.

Clearly, rescheduling this hearing would have been in the best interest of the people of New Hampshire.

The attempt to implement this crushing job killing Federal mandate needs to stop now. And we call on the EPA to stop this absurd and outrageous assault on New Hampshire electric taxpayers.

Sincerely, William O'Brien, Speaker of the House.

I would like to submit this for the record.

MR. WEBSTER: Thank you.

Now, Timothy Twombly?

MR. TWOMBLY: Thank you for giving me the opportunity to speak.

I am Timothy Twombly, State Representative from Nashua, New Hampshire, Hillsborough 25. That's Ward 7 in Nashua.

All I want to say is that I agree with the previous two speakers have said, that $112,000,000 to prevent clean, clear water from going into the Merrimack

River seems to be a very expensive proposition for the ratepayers of New Hampshire.

They are all going to have to pay public service, because public service is going to have to put that in rates. This is going to increase the cost to all men, women and children by $85 a year.

I would like you to allow the Public Service of New Hampshire to go ahead and not have to put this $112,000,000 cooling tower in place.

As a matter of fact, they already spent, I believe, something like $400,000,000 to put a scrubber in place which is protecting our air quality. Public Service of New Hampshire is the only residential provider of electricity. I hope that they are not -- that the administration is not trying to put them out of business, but, I have my concerns.

Thank you very much.

MR. WEBSTER: Thank you.

Were there any other elected public officials that wanted an opportunity to speak? I didn't get any other ones signing up.

And then, I will call on Rob Frye from the Rockingham Fishing and Hunting Expo.

MR. FRYE: Thank you. My name is Rob Frye. And I'd like to thank you for allowing me to speak at this

forum. First off, I want to thank you also and respect all the work you have done, you, being the EPA. You know, I definitely respect that. I'm not putting that aside.

But, I am going -- I am asked to be here. I decided to be here on a different perspective, from basically, a fisherman's perspective. And let me share a few credentials about myself.

I am a New Hampshire resident. Father of two with a loving wife and the founder of the -- what used to be the largest bass fishing organizations that was founded in 1996. I was the president of the New Hampshire Bass Federation for six years. I was a board of director for New Hampshire Lakes Association for two years. And as you mentioned, I am the founder of the Rockingham Fishing and Hunting Expo. I have been bass tournament fishing, since 1993, one time State champion, and two time angler of the year. And I have been commercial saltwater fishing for three years.

So, basically, I am a hard core avid angling enthusiast.

And I do have a job. I am a software engineer. Basically, I'm a computer geek.

So, I personally fish all year round. And I have been fishing the Hooksett pool of the Merrimack River since 1992 since I first owned a boat. That was almost 20 years ago. And I fish what we call as the Bow power plant, at

least six to 12 times a year.

And I've even posted YouTube videos with some friends. And you can view these today, where I have been fishing the Bow power plant during Thanksgiving, Christmas and New Year's Eve, because it's just an excellent fishery.

So, -- you know, so, I have been sharing my personal experiences. And my personal experience is the Bow power plant is an incredible sustaining fishery.

And I understand the work that was done as far as the data collected for the slide show. But, you know, I have questions -- I question a lot of that data. I mean, for one, you can't tell me where that data came from or who it came from.

There's a lot of dimensions or variables in fishing. You know, the slide that you showed that only four fish were caught, that's definitely a better day of fishing at Hooksett River. Because I can bring you to places -- I mean, to that Bow power plant and catch sometimes 50 fish a day. And you catch multiple species there.

And if you know where the dam is in that section, there is a ton of yellow perch in that area. And I've actually brought an aqua view camera there just to kind of check out the terrain of the area. And, you know, I was very impressed by the amount of white suckers that are there.

So, you know, I question where you're getting your data. I mean, it looks like you guys are looking in the wrong place to be honest with you, because it is an incredible fishery.

So, the perspective is, you know, this piece of water, this water body, it is the only place in New Hampshire where you can fish all year round from a boat. Because of the rest of the waters, you know, they are pretty much frozen or not accessible.

And so, if this closed loop system goes into place, it's going to be unfortunate, because we're going to lose a resource which is the bass fishing.

And I think that's about it. I did have more, but, I'm going to submit my paper as well. Thank you.

MR. WEBSTER: Thank you very much, Mr. Frye.

Kenneth Colburn, Stonyfield Farm.

MR. COLBURN: Thanks very much for the opportunity to speak to you tonight. I want to offer just a couple of thoughts.

First, by way of introduction, I am here on behalf of Stonyfield Farm and the commercial ratepayers group that was a group of 20 companies that challenged the idea of investing nearly half a billion dollars into a 40 plus year old coal plant in the first place, of which, this project is -- is one in a continuing series. That was back in 2008.

Stonyfield, as you may know, is the country's largest organic dairy producer which means that nutrition, health and the environment goes to the core of our business.

We applaud the EPA's Draft Permit for its environment and public health protections.

The first comment or perspective that I'd like to share is actually, one of mystification. Judging, at least by its blog, I interpret that PSNH does not agree with the EPA Draft Permit. And this mystifies me because it probably relates to cost.

But then, I am still confused. Because, back in 2008, when the cost of the scrubber project and the turbine enhancements went from $250,000,000 to $457,000,000, an increase of nearly $200,000,000, that was good news. PSNH supported that, indeed, pushed it very, very hard, indeed suggested, in terms of labor and so forth, that it was good for jobs.

So, I'm confused why, if you can add $200,000,000 and that's a good thing and you can rate base another $200,000,000, even though you had cheaper cost options on the market, or in a different plant replacement, and that's good for jobs, why another $100,000,000, so a total of $300,000,000, isn't better. So, I'm very confused on this.

PSNH chose to do that. So, surely, they knew that this permit process was coming up. So, surely, as a public

utility, it planned, it has an obligation to plan for this kind of permit determination.

So, I'm sure that it was aware of the risk of a closed loop cooling system. Indeed, I assisted in the drafting of a compendium of issues associated with this plant issued in late 2008 in which this issue was called out and the cost estimates were approximately in the range that we have described tonight. That, having been called out also was not a surprise.

So, fundamentally, my confusion rests over the issues that PSNH can't argue about cost. It can't argue about jobs. And it can't argue about surprise.

So, I'm not sure why we are here and why they are opposing.

My second concern is related to the fate of mercury itself. As you know, mercury is a persistent bio cumulative toxin. What bio cumulative means is that, just a little bit is not safe, because little bits build up over time in the food chain and become big bits and harmful and neurotoxic to developing fetuses.

As you also know, that the Merrimack River system is a TMDL limited river, that means total maximum daily load. What it means in layman's terms is, the river is already maxed out for mercury. And that means, it can accept no more under Federal provisions.

Well, hence, the importance of the stringent Draft Permit conditions that you have included.

I would just like to ask that you also include equally stringent near term constraints because, you see, the scrubber removes sulfur. And in the process, it also captures the majority of the mercury.

Some of that mercury winds up in the scrubber wastewater. If that wastewater is not subject to comprehensive and thorough zero discharge treatment at the plant, but, is instead shipped elsewhere, probably to municipal publicly owned treatment works, some of those treatment works, and because mercury then adheres to the solids in the treatment process, some of those treatment works incinerate their solids as a way to dispose of them. That means that the mercury that is with the solids that then are incinerated, is readmitted, PSNH's coal mercury is readmitted. It is just being emitted out of a different stack.

I would suggest to you, under those conditions, that we didn't accomplish a whole lot in terms of mercury reductions.

Thanks for the opportunity to speak.

MR. WEBSTER: Thank you.

I next call on Randy Herk.

MR. HERK: For the record, my name is Randy Herk.

I am a PSNH employee. And I am here today to share my perspective on the EPA's recent Draft Permit regarding the impact the operation of the Merrimack Station is having on the health of the Merrimack River.

Much of the focus of the EPA's recent Draft Permit is on the plant's impact on the fish population. So, I think it is important, people like myself, who fish the river regularly share my experience.

The Merrimack River has undergone some dramatic changes over the last decades, all of which are for the better. During my time fishing on the river, I have caught plenty of fish. Of course, all my fishing is catch and release so the fish go right back into the population.

In addition to being a very active fishing spot, the Merrimack River is also home to many other types of wildlife. I have observed ducks, blue heron, bald eagles, minx, beavers, weasels and other form of wildlife all actively enjoying the healthy waters and ecosystem of the Merrimack River.

It is no secret that the Merrimack River is a great spot for fishing and wildlife. The river is normally fished by several bass boats and used by others looking to enjoy the outdoors.

I was very grateful to PSNH for installing a community boat launch near the Merrimack Station allowing

many others to enjoy the river and all it has to offer.

In closing, as someone who spends a lot of time near the river and on it, it is my observation that the river is healthier and cleaner than it ever has been. I believe, my experience as a fisherman and my observation of so many others enjoying the river are a testament to that.

Thank you, very much.

MR. WEBSTER: Thank you, Mr. Herk.

Catherine Goldwater.

MS. GOLDWATER: Hello. Thanks for letting me speak. I am Catherine Goldwater from Hollis, New Hampshire. I am a member of the New Hampshire Green Coalition and Sierra Club of New Hampshire and National Sierra Club. I have lived in Hollis, New Hampshire for 30 years, raised two kids there.

I want to thank the EPA very much for the work they are doing to try to protect and enhance the wonderful environment of our state of New Hampshire which, I just -- I love the state. I think we all do here. And just view it a little differently.

I just have a few really brief comments. One thing this made me think about was that, decades ago, Marion Stoddard began to notice the pollution in the Nashua River that, at that time, was so visible, it was -- the factories were discharging into the river so that you could look and

see yellow foam. And it was almost like plastic or blue. The river was colored. And it was just being treated like a garbage dump.

But now, the kinds of pollution are not visible. And yet, we know the harm of mercury, arsenic and other chemicals in minute amounts. You know, I was glad to hear that the fisherman who just spoke so passionately, doesn't eat the fish, because, although it wasn't commented on, we know there is a lot of mercury in the fish in New Hampshire Lakes, mostly from the air. And that's not all from the Bow plant. It also comes from Ohio and drops into our lakes.

But, we have been told to eat very few fish from the lakes. You know, maybe one a month is a safe, none if you are pregnant and so forth.

So, I am concerned about these chemicals and how they are hurting people and animals.

A Fact Sheet that I got indicated -- I don't think this was from the EPA. I think this was from Sierra Club, indicated that some of the Merrimack water down stream is used for drinking water in Lowell. And I hope that that's properly cleaned if it is really being used for drinking water.

I also have a question which I hope to get answered someday, that the water that is heated, and it goes over the dam and then gradually mixes so it cools down, but,

it stays warmer, I'm sure, then it was 30, 40 years ago. And I wonder what the effect of that heated water is on the growth of bacteria or what kinds of insects may be more common because the water is warmer. Just another aspect that wasn't touched on today.

PSNH, as somebody just spoke about, just invested in those new scrubbers to reduce the sulfur, but not remove all of it, I don't believe, reduce the mercury. And we know, for that reason that this PSNH is likely to be around for quite a while.

So, therefore, I fully support and am in favor of the EPA draft to make it as strong as possible.

So, thank you for letting me speak.

MR. WEBSTER: Thank you.

MS. GOLDWATER: I will write this out for you.

MR. WEBSTER: Yeah. Again, I'd encourage anybody to submit in writing as well.

Linda Rauter.

MS. RAUTER: Thank you for the opportunity to speak. My name is Linda Rauter. I live in Chichester, New Hampshire. My family and I have lived in the greater Concord area for about 38 years.

Concord, with its beautiful Merrimack River has been the center of most of our activities over the years. Not too long ago, before we arrived, the Merrimack was so

polluted that one could not even safely swim in it. I understand that now, it is safe for swimming, boating and for wildlife.

Because of the Bow power plant, I personally believe that only the area above the plant is safe for water activities.

Sadly, extremely polluted discharge water from the plant continues to foul the river below it. Warmer water temperatures and the discharge also affect life in the river below the plant.

In addition, it is my understanding that the 287,000,000 gallons of water withdrawn every day by the plant results in horrible deaths for whatever creatures may be in that water.

A short distance up river along the Forest Society Conservation area, I have noted turtles, mink, muskrats, otter and water birds in addition to the fish that live in the water. It is extremely disturbing to imagine these creatures being sucked into the plant turbines or drowned on the intake screens.

The right thing to do is to drastically limit the amount of water withdrawn by the river -- withdrawn from the river, and to make certain that whatever water is discharged is first cooled and cleaned.

I am also extremely concerned about the amount of

mercury discharged by the plant. There is absolutely no question that mercury is a toxic substance and it is falling indiscriminately into our sewers and every water body. This is dangerous to all life and must be stopped.

Thank you.

MR. WEBSTER: Thank you for your comments.

Tom Irwin?

MR. IRWIN: Thank you. For the record, my name is Tom Irwin. I direct the New Hampshire office of the Conservation Law Foundation.

We appreciate you being here tonight and appreciate the opportunity to comment on this Draft Permit.

For the bulk of my time, I'd like to read into the record a joint statement of a number of environmental organizations, specifically, the Conservation Law Foundation, the Appalachian Mountain Club, Conservation New Hampshire, New Hampshire Audubon, Environment New Hampshire, the New Hampshire chapter of the Sierra Club, Clean Water Action, and The Society for the Protection of New Hampshire Forests.

We appreciate the opportunity to comment on the US EPA's Draft NPDES Permit for Public Service Company of New Hampshire's Merrimack Station coal fired power plant in Bow. We appreciate that EPA is addressing the harmful impacts on the Merrimack River that occur as a result of the massive

water intake and heated and chemical wastewater discharges associated with the coal plant's obsolete water cooling system.

Although we are frustrated that 14 years have elapsed since the expiration of the current permit, we commend EPA for requiring PSNH to ensure that Merrimack Station is operating in a way that is both protective of the fragile river ecosystem and in compliance with the Clean Water Act, a law that is essential to protecting the health of New Hampshire's natural environment, economy and communities.

We fully support EPA, at long last, requiring the installation at Merrimack Station of a modern closed cycle cooling system that will nearly eliminate the harmful impacts associated with the power plant's current system. Impacts that, as EPA acknowledges, have resulted over the plant's lifetime in a 94 percent decline of species in that part of the Merrimack River.

The current method of cooling the plant pulls living creatures into the system, crushing, mutilating and suffocating them. It traps fish and other aquatic life against the screens, covering pipes, that pull water into the system injuring or killing them, and then, subjects the river and its aquatic life to the further stresses of heated waste water discharges.

The upgrades to Merrimack Station that EPA is requiring are long overdue. Installing a modern, closed cycle cooling system and operating it year round will decrease the plant's discharge of heated water by nearly 100 percent.

In addition, because it will not require the same volume of water from the river, the upgraded system will dramatically reduce the loss of adult fish, fish larvae and fish eggs, that today are getting sucked into the structures and killed.

While we strongly support the EPA's intent to require the construction of a modern, closed cycle cooling system, we are greatly disappointed with the Draft Permit's failure to limit the power plant's discharge of mercury to zero. The State of New Hampshire and the EPA have determined that the Merrimack River already violates State water quality standards for mercury.

Because it is a biocumulative and persistent neurotoxin, even small amounts of mercury discharges build up over time in fish threatening people, other mammals and birds that consume fish from the river. And as a result, no amount of mercury discharge into this already impaired water is safe.

Indeed, PSNH previously informed the New Hampshire Site Evaluation Committee, in a 2009 hearing on its

installation of a wet flue gas desulfurization scrubber, that the scrubber waste water treatment system, PSNH was constructing, would not discharge any mercury waste water to the Merrimack River.

EPA, in its permit fact sheet, appropriately acknowledges that PSNH designed, financed and constructed the new Merrimack Station waste water treatment system without first discussing with EPA whether it would meet the standards required under the Clean Water Act.

We strongly urge EPA to amend its Draft Permit to require zero liquid discharge to prevent further pollution of the river with mercury, selenium and other toxic pollutants.

To be clear, these comments should not be interpreted as support for the continued operation for PSNH's Merrimack Station coal fired power plant. The plant is the single largest source of greenhouse gas emissions in New Hampshire, perpetuates the adverse health impacts associated with burning coal and cannot generate power cost effectively in comparison to more efficient power plants operating in New England today.

No matter what PSNH spends to upgrade this facility, it will not be able to turn this 50 year old plant into a desirable source of energy that benefits the people of New Hampshire and New England.

Nonetheless, as long as this plant remains in operation, it must, as a matter of law, comply with the Clean Water Act.

We commend EPA for finally addressing the Merrimack Station's out dated and environmentally harmful cooling system. And we urge EPA to amend its Draft Permit to require the elimination of any mercury discharge from the plant.

We request that EPA proceed expeditiously with the finalization of this Draft Permit.

That concludes the joint statement. And I will leave you with a written copy of it.

The last point I want to make, and it picks up on a point made by Mr. Colburn, relates to our understanding that the Department of Environmental Services has authorized for waste water -- municipal waste water treatment plants to accept indirect discharges of scrubber wastewater from Merrimack Station. Specifically, we understand that the city of Concord is authorized to accept up to 25,000 gallons per day of the scrubber waste water, that the city of Manchester and the towns of Hooksett and Allenstown are each authorized to accept up to 100,000 gallons per day of scrubber waste water.

We are concerned about the potential impacts. And not only the potential impacts to the Merrimack River, but,

as Mr. Colburn suggested, with the impacts of mercury from this waste water absorbing into solids and ending up either on the land or potentially even incinerated.

So, it is an issue of concern that we hope EPA will closely address.

Thank you very much.

MR. WEBSTER: Thank you, Mr. Irwin.

Catherine Corkery?

MS. CORKERY: Thank you for coming this evening and having -- sorry -- it won't be the last time. My name is Catherine Corkery. I live here in Concord. I am representing New Hampshire Sierra Club and just have a couple of additional comments to add.

First off, we do -- New Hampshire Sierra Club supports the permit in requiring the closed cycle water facility. It is a huge improvement from what is there now, just the modern technology. This is like going from the tape recorder to the iPod all at once. It's very exciting.

A 90 plus improvement on reducing the water intake. It's about time. The Merrimack River has been abused and used and dumped in -- dumped on for too long. And the other abusers, if you will, have been eliminated.

And now, we just have the Merrimack Station here in Bow as one of the few polluters left.

And what's nice is that it is a simple solution

with the thermal pollution.

Secondly, it is such an improvement with the wildlife. We really commend you for that.

The concern that we do have is, no surprise, concerns the waste water treatment with the effort to take the mercury out of the smoke stack only to be going out to the outfall pipe into the river is something that we asked the EPA to regulate.

As stated earlier, mercury -- the Merrimack River is maxed out on mercury. And there should be no more allowable mercury added to the river, or the other pollutants.

The Merrimack is a source of drinking water for many communities. In New Hampshire, it's over a hundred thousand people in the Nashua area alone. It is drinking water for the cities of Lawrence and Lowell in Massachusetts and many other communities along the way.

And adding more pollution into the Merrimack River through the waste water treatment facility is -- is a step in the wrong direction. And we ask that the EPA re-examine that and put tougher standards in.

But, as a whole, the Sierra Club does support this permit. And again, it's about time. Thank you.

Oh, and I'm sorry, I've got some mercury studies that I have that just talk about the accumulation, not from

the air pollution, but, different water source mercury pollution like the waste water treatment. I will just bring it up.

MR. WEBSTER: You can leave it here or you can mail them in, which ever one you want.

MS. CORKERY: Yeah. Yes. Thank you.

MR. WEBSTER: In fact, if you mail them in electronically, it might even be helpful.

I call Jerry Curran.

MR. CURRAN: I'm Jerry Curran. I am chair of the New Hampshire chapter of the Sierra Club.

I'd like to thank the EPA for starting this whole process. And I am just struck by the words of warm, clean water coming out of the Merrimack Station power plant. I don't know how many of you have actually seen that power plant. But, terms like warm, clean water coming from the power plant it seems a little odd.

I think it will provide jobs. If we kind of leave it as it is, there will be jobs for healthcare providers. If we were to keep this power plant operating, which we don't agree with, if we were to keep it operating, we've got the third highest asthma rate in the country. We've got 18,000 children who suffer from asthma in New Hampshire. And we are in an EPA non-attainment area for ozone. And that exacerbates the 18,000 children with asthma.

So, even in the best situation, if we keep the plant running, when there are so many other ways to produce power other than with coal in a 40 year old power plant, and keeping it running is really not a great option.

If we were to keep it running, cleaning the warm clean water from the effluent would be a good idea.

Also, as other people have mentioned, the slurry from the scrubbers, all of that water will end up back in the Merrimack with other chemicals, along with mercury in the Merrimack, and that's even water that is drinking water for Nashua, as I understand. It just seems kind of hard to call that warm, clean water.

I do support the denial of the thermal variance. And just to keep it brief, I would like to thank EPA for the work they are doing. And it's overdue. And we thank you very much.

MR. WEBSTER: Thank you.

Is it Marsh Feigl? Excuse me.

MR. FEIGL: Good evening. My name is Marsh Feigl and I am just a citizen of Concord, New Hampshire.

I'd like to thank the EPA and all the speakers for providing a lot of really good information. I learned a lot tonight.

I just want to start off by saying, for those of you who don't know, the Merrimack River, and rivers in

general in New Hampshire are real -- I'm an avid paddler, paddled almost all of the Merrimack. And it's thanks in large measure to the Clean Water Act.

Some of the people in this room, it's really a wonderful place to -- to paddle and to be on. And I encourage people to access this wonderful resource.

But, it hasn't been for naught. And it hasn't been -- just hasn't happened overnight is what I'm trying to say.

I've paddled on the, what people refer to as the Hooksett pool, probably upwards of 50 times. And all -- the thing that I wanted to share with folks tonight who haven't seen it -- that area, and the reason that I paddle there in the winter, -- I usually don't paddle there the rest of the year, because it's -- I just have other spots to go. But, a group of friends and I, we paddle there in January, February and March, because there is open water.

And we've heard a little bit about that earlier from some of the fishermen who I've probably seen out there. And it's a great place to paddle. It really is. Because, everywhere else in New Hampshire is locked up. There is nowhere else to go.

But, it's also very strange and weird, almost a surreal thing to be in that river and to look upstream from the power plant and see this much ice just locked up, as I

suppose it should be. And below the power plant, all the way down to what I call the Hooksett dam, or down by the Hooksett District Court, it's probably three quarters of a mile, generally open water the whole way. Beautiful. Lots of ducks. I view lots of fish. I'm not a fisherman, lots of bald eagles, a little hint there for folks.

It's great. But, it is a strange and odd thing to see, and clearly unnatural. But, I will leave it to others to decide whether it's a good thing or a bad thing. But, it's -- it's not a natural thing, that's for darn sure.

MR. WEBSTER: Thank you.

Rick Tuttle?

MR. TUTTLE: My name is Rick Tuttle, actually, Frederick S. Tuttle, Jr. And I appreciate you being here and I thank you for allowing me to make a statement.

I was not planning on making a statement. But, after listening, and seeing what really was at stake, I felt I had to make my thoughts made.

And I have lived on the Merrimack River in Hooksett. I seem to be the first one here from Hooksett. But, I have lived on the river for 19 years.

I have seen what is there. I've seen -- I paddle. I kayak. I have paddled, like the previous speaker, I have paddled that Hooksett pool many, many times. I have very rarely seen much wildlife on that pool. And I believe it's

simply because of the change in thermal. I wish to support the strongest possible controls on thermal output from that power plant.

In 19 years, I've seen the effluent coming down the river. I've seen the effluent coming out of the stacks. I just hate the thought of seeing more yellow smoke coming out of those stacks. And if it doesn't come out of the stacks, it's going to come in the water. I don't want to have to paddle in that water.

Also, my drinking water is from Hooksett. Guess where Hooksett gets its drinking water. It comes from wells, deep wells. Those wells are supplied by water in some way, shape or form, from the river. I don't want to drink that water. But, at this point, it's filtered good. And we're able to drink it without getting too sick.

My strongest concerns though really revolve around the wildlife of the river. Everybody here has spoken -- almost everybody has spoken very eloquently about the fish populations. To me, the fish populations are almost the smallest part of the overall equation.

When you look at the fish, what do the fish depend on to eat, what depends on the fish to feed them. We've got bald eagles. We've got osprey. We have probably a half dozen species of herons. We have otter. We have weasels. We have beaver, herons, fishermen, and many other things

that we don't even know about that are part of the food web of that area.

This to me is the more important aspect of why we should have control over those thermal outputs. Simply, because we don't know what we're doing to the food web. We don't know what we're doing to the environment web in a lot of cases.

I also -- my property almost abuts the river and it is right next to the B&M railroad. I listen to the B&M railroad, the coal cars coming up and down the tracks, three, four, five times a day. That's a lot of coal from listening to and seeing it go by. And to think that's all being burned and all of the effluent is either going into the air or into the water. And not just the physical effluent. Again, we're talking about the heat.

That's why I really want to stress that we need those controls. We need to put that river back to its -- as close to its normal running temperature as possible. Not only for us, but for everything else that survives on that river.

Thank you.

I don't know if I should give you this.

MR. WEBSTER: You don't have to give it in writing.

MR. TUTTLE: Okay. Thanks.

MR. WEBSTER: Thank you, Mr. Tuttle.

Robert B. Williams, Jr.?

MR. WILLIAMS: Thank you. My name is Robert Williams. I live in Chichester. I'm on the board of the Campaign for Ratepayers' Rights.

And while Ratepayers' Rights is very much concerned with electric rates, we also think about the total electricity picture in terms of residues from generation, whether it is radioactive waste or, you mentioned plants such as the Bow plant.

My main question, relates to, has anybody taken a good look at the total picture of costs involved for both capital improvements as well as, you know, annual operating expenses?

A few years ago, we were in this room for the hearing on the, at that time, the proposed Bow scrubber for the mercury emissions. And there was no mention of an upcoming, you know, improvement in the reduction of the hot water treatment that the Bow plant involved.

And I wonder if there are any other capital projects that may be proposed in the next five or 10 years that we should think about.

If the Legislature had had full information about the total cost involved with the scrubber, and this thermal treatment, and possibly other things, then, they might have

made a different decision than just giving the public service company a blank check to go ahead and build the scrubber no matter what it costs.

Because then we get locked into the idea of, oh, well, now can't shut down the Bow plant, because we've spent so much money in it. We have to keep it going. You know, and then, we have to spend some incremental money still using so much coal.

Thank you.

MR. WEBSTER: Thank you.

Jeff Daly.

MR. DALY: Good evening. My name is Jeff Daly. I live in Nashua. I'm also a member and sitting on the lower Merrimack River LAC. I'm also an outside member of the Sierra Club. I also testified here on the flue gas scrubber when it was talked about. I also would like to comment on the previous speaker.

MR. KING: Sir, could you define LAC?

MR. DALY: It is the river council.

MR. KING: Thank you.

MR. DALY: We are talking -- the previous gentleman talked about all the costs. We know the EPA does a good job in many aspects. What you've written up here in 60 pages is just part of your mandate. One aspect the gentleman alluded to should have been talked about several

years ago.

We spent -- it went from 250 to $475,000,000. We now have got a massive great chimney stack outside here. You've got a flue gas scrubbing system. And you say the technology does not exist to clean up the waste coming out of that.

Within your own document, you talk about numerous outflows. Nowhere in there do you say, let's consolidate all this waste water. Let's treat it in one place.

I can take you to the Dow Chemical plant in Midland, Michigan, and Freeport, Texas, where they take very toxic waste water and they remove arsenic, cyanide, thialysines (phonetic), mercuries. And they put the water back in their facility in Michigan cleaner than they take it out of Lake Michigan.

The technology is there. And yet, the EPA has not addressed in any of their paper work here. Other than on page 39, you talk about nitrogen. You talk about discharges of ammonia, nitrogen, and nitrogen can be treated to the depletion of a water body's dissolved oxygen levels. This can, in turn, cause a variety of adverse quality, water quality habitat effects.

We all know dissolved oxygen's effect on the Gulf. Has the EPA been down there and allowed rehabilitation of the Gulf? No. We've been pouring, right now, in excess of

7,000,000 gallons of Corrects It 9572 (phonetic) into the Gulf because nobody wants to do remediation. Let's sink it.

What has that done? Reduced the dissolved oxygen content within the Gulf to a point where you've got vast areas that are dead.

You can go off the coast of New Jersey, Toms River, where the Seaver Geiger Company (phonetic) dumped materials.

And in here, you talk about the US Army Corps of Engineers is working on a dissolved oxygen model for the Merrimack River. Gentlemen, that model has been around for 35 years. Why are we now talking about a new model?

You said the results of this modeling analysis could lead to the conclusion that nitrogen limits are needed. Why don't you just turn around and say zero. We've got the technology.

The same thing with the coolant. There are air cooled heat exchanging systems that are totally enclosed, do not require any water discharge once they are shut up, other than some make up for the regular relief valve blow outs that take place in any power plant. It doesn't matter where you go.

Also, that hot air that is driven through those air cooled heat exchangers can then be used to reheat the combustion air used to burn in the boilers. You don't have

to pump it up into the atmosphere. Go down to Manchester and look at the Granite Ridge plant, which is an over peaking plant. And look at the steam that comes out of their cooler.

The other day, we measured it. It is 6000 feet plume of steam rising into the atmosphere. We went to the other side of Stonyfield, and the gentleman from Stonyfield may be able to confirm this, it was raining a mist of rain.

Are we wanting the same thing, if you have an open closed loop system rather than a close closed loop system.

This, gentleman, should have been addressed in your permit. I agree, we've got to lower the temperature. But, there is technology around. It's been around for years. In Europe, they've been using air cooled heat exchanging systems for 35 years. It's been around in the United States for 20+ years. I've worked on four of them.

You mentioned the Everett unit down in Boston. That works very well. You don't see tons of steam pouring out into the atmosphere there.

We've got to look and utilize the best technology. EPA is doing a good job. But, you've got to go out. You've got to ask for help. You've got to -- you can go to round tables and ask for people to come up with suggestions. Ask PSNH to be part of it. Have them have some of the input.

I know some of the directors of PSNH. They would

be very willing to open up and say, hey, let's sit down and let's hear from engineers. Let's hear from people who've got ideas.

The destruction of our environment, especially, the Merrimack River, cannot continue. Heat is one of the killers that changes the environment dramatically. Whether it is in the water or in the atmosphere.

We can't pump out close 1,000,000,000,000 BTUs into the atmosphere of any sort. We've got to try to recover it. And one way is, you take an air cooled heat exchanger, take the air from that and use it as pre-combustion air rather than outside cold air, irrespective of what time of year it is.

But, this thing about the US Army Corps of Engineers, please, revisit it. Re-look at it. Because, if you're saying we've got to look at restructuring, and you even say it here, well, the next time the permit is revised, why next time, why not say zero.

Thank you very much.

MR. WEBSTER: Thank you, Mr. Daly.

Barbara Morris?

MS. MORRIS: I just wanted to explain my attire. This is the third event I've been at tonight. And one of them was a cocktail reception.

I wanted to applaud this gentleman who was before

me. And I wanted to find out, is what you are describing known as pumped hydro system?

Is he allowed to address that? Is that a pumped hydro system that you're talking about?

MR. WEBSTER: Why don't we have a dialogue after the hearing.

MS. MORRIS: Okay. I am just going to be brief in saying that, I just moved to the Concord area from the beautiful and pristine Monadnock region of New Hampshire. Our lakes, our rivers, our streams, are isolated from smoke stacks and highways. And when I did move to Concord, I thought, oh, I'm going to have to join a public swimming pool. I was so happy to find out about the society for the protection of New Hampshire forests conservation center that abuts the Merrimack River and does have access to the river for people, their dogs. And I can say that I enjoyed that thoroughly this summer during the heat wave.

And it's just as recently that I found out just how polluted the Merrimack River is. And even worse, now that I'm finding out what's going on with the river from the Bow power station.

Just in brief, I applaud what he says, I concur with what he says. I think you all need to really reevaluate the technology that is available. Why does the Merrimack always have to learn and apply what is being done

across the pond, no pun intended.

And I think, -- I think, before you go ahead with things as they are, I think there needs to be a lot more discussion and bringing in scientists and engineers, and authorities about putting the best system in, because I don't think there is going to be a next time. I think this is the time. And the changes have to be made with the best -- the best technology that is available.

Thank you.

MR. WEBSTER: Thank you.

The next speaker is the last card I have. So, I anticipate asking, after that, if there is anybody that hasn't spoken to have an opportunity to do so.

Now, Woodworth Winmill.

MR. WINMILL: I'm a high school student. I live in Walpole, New Hampshire. First, I'd like to ask a question. You were talking about the -- the ash and how you are going into, I think, the Tennessee type scenario, but, that was unclear, because you said you are keeping the ash at the site of the plant; correct?

MR. WEBSTER: I cannot answer a question because this is a public hearing. And all I can -- we can do is to listen. If you want a clarification, after this official hearing is over, I will be happy to discuss it with you.

MR. WINMILL: Okay. I was also looking through

the original permit that was handed out, this document that says draft. I assume this is the original permit. It is the authorization to discharge under the National Pollutant Discharge Elimination System?

MR. WEBSTER: That is the Draft Permit we are receiving comments on.

MR. WINMILL: Okay. Well, I was looking at it, and it was really confusing. Because one of the problems I get, limitations of the discharges. And it has the one column that is the average monthly discharge, and the column that's the daily maximum. But, almost all the pollutants are measured only on a per week basis, which is confusing me. I don't understand why -- the chemistry of that or not. Why do you have a maximum, if you only measure the weekly content. What is the applicability of that.

Additionally, I was looking down at it, and basically, most toxic heavy metals are listed here. I mean, you've got a chromium and cadmium and arsenic and lead, and you have -- (inaudible) the catchall category more or less of mercury and manganese.

And there also was like various quality quantities. You've got the daily maximum of arsenic is 15 micrograms per liter. Which means, if you're discharging thousands of gallons of water and that's 15 -- that's 15 micrograms per liter. And add to that -- (inaudible) a

meaningful amount and it had them at a macroscopic level which they -- like the recoverable lead is 100 -- 100 micrograms per liter, unless you -- on page 6, which was kind of a shock, 100 micrograms and you discharge thousands of gallons and that's pretty vague.

That -- oh, that was a weird noise.

Okay. Any way, moving on, and then if you look at the chlorides, like you have 18,000 micrograms of chlorides -- of -- no, excuse me, -- that -- it's actually measured in milligrams. So, you have 18,000 milligrams, which corresponds to 18 grams per liter of chlorides, which is a significant amount of chlorides if you -- especially if you're going to list thousand gallons again.

But, it also addressed the issue of pollutant (inaudible) the metabolic rates of different fish but, in terms of water temperature, if you reduce the water temperature, you reduce the total saturation capacity of oxygen. As one of the previous speakers mentioned, the idea, because, the dead area of the Gulf of Mexico, and how it's -- how it's directly correlated between the ability of liquid to dissolve the gas and the temperature.

So, if you had like the top layer, which has the most like aquatic life in it, reduce the amount of like -- the carbon dioxide could be dissolved in that for the aquatic plants to digest. And you would reduce the amount

of oxygen that can be held in the top layer of water.

And then, finally -- what else -- oh, I have one other point. Oh, yeah, and then, my last point was the issue of currents and how that this -- if you had a region of -- of like a flow area of water, how it could affect the currents. And especially, like trying to bring back salmon in northeastern rivers. And if you have other water, moving fast, it'll make it more difficult for fish in general to travel upstream beyond actually getting killed by the (inaudible) of the plant.

That's all I have to say. Thank you.

MR. WEBSTER: Thank you.

Is there anybody that has not had an opportunity to speak that would like to make a statement for the record during this public hearing?

Okay. I'd like to thank you for coming this evening and your interest in the permit. I think, we heard a lot of thoughtful comments from a lot of different perspectives. I think you'd have to agree with that. A lot of information was shared tonight. And we look forward to receiving your comments, both the ones that you gave tonight and those we will receive in writing in deliberating on the final permit here.

Please remember, the public comment period ends at midnight, February 28th. And you may send in written

comments until then.

If you have any questions on that procedure, we will be here to ask.

This ends the public hearing at 8:33 p.m.

(Whereupon, at 8:33 p.m., the public hearing was concluded.)

CERTIFICATE OF REPORTER AND TRANSCRIBER

This is to certify that the attached proceedings in the Matter of:

RE: NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PUBLIC SERVICE OF NEW HAMPSHIRE, MERRIMACK STATION, BOW, NH
NPDES PERMIT NO. NH0001465

Place: Concord, New Hampshire

Date: November 3, 2011

were held as herein appears, and that this is the true, accurate and complete transcript prepared from the notes and/or recordings taken of the above entitled proceeding.

M. Rossi	11/03/2011
Reporter	Date
M. Rossi	11/22/2011
Transcriber	Date