STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

TOWN OF BURRILLVILLE PLANNING BOARD

****

PUBLIC HEARING IN RE:

INVENERGY THERMAL DEVELOPMENT LLC

****

The matter pertaining to **INVENERGY THERMAL DEVELOPMENT, LLC**, an **APPLICANT** in the above-entitled cause, before Karen R. Ceseretti, RPR, a Notary Public in and for the State of Rhode Island, at Burrillville High School, 425 East Avenue, Harrisville, Rhode Island on June 20, 2016, scheduled to commence at 6:00 p.m.

---------- **KAREN R. CESERETTI, CSR, RPR** ----------
COURT REPORTER

PREMIER LEGAL SUPPORT, LLC
536 ATWELLS AVENUE
PROVIDENCE, RI 02909
401.352.6869
DANIELLE@PREMIERLEGALSUPPORT.COM

A P P E A R A N C E S

MEMBERS OF THE BOARD:

Jeffery Partington, Chairman
Leo Felice, Vice Chairman
Bruce Ferriera, Secretary
Robert Woods, Board Member
Marc Temblay, Board Member
Michael Lupis, Board Member
Dov Pick, Board Member
Christopher DesJardins, Board Member
Jeffrey Presbrey, Board Member

ALSO PRESENT:

Thomas Kravitz,
Town Planner of Burrillville
Michael McElroy,
Solicitor for the Town of Burrillville

FOR THE APPLICANT:

ADLER POLLOCK AND SHEEHAN
Elizabeth McDonough Noonan, Esquire
Nicole M. Verdi, Esquire
One Citizens Plaza
Providence, RI 02903
401.274-7200

MONDAY, JUNE 20, 2016

PLANNING BOARD HEARING

CHAIRMAN PARTINGTON: I would like to bring this meeting to order, please. First on our agenda is the attendance review this evening. We are all present and accounted for. Next is the acceptance of the minutes from the April 28th and May 2nd meetings.

SECRETARY FERRIERA: Motion to accept.

BOARD MEMBER PICK: Second.

CHAIRMAN PARTINGTON: Any discussion? All those in favor?

(MOTION ACCEPTED)

CHAIRMAN PARTINGTON: Motion carries. Next, correspondence. We have a June 14th e-mail request from resident Barry Craig. That is available where, Tom?

TOWN PLANNER KRAVITZ: It was placed on the agenda. It is in the correspondence.

CHAIRMAN PARTINGTON: Well, we have it.

TOWN PLANNER KRAVITZ: But it is public record. It is in the file.

CHAIRMAN PARTINGTON: I just wanted to make sure the public had access to it. A synopsis is Mr. Craig has alleged that there was a violation of the Open Meeting Act, not by us but by the Town Council, the Town

Solicitor and the Town Manager and that because of that he is asking us to take some action. This was brought up in a regular meeting last week. It was not on the agenda so we did not address it at the time. We did address it here.

It is also my understanding that the Town Solicitor has recused himself, if I got that term correct, from representing us and that is why Mike is here this evening. So, that has transpired. We as a Board are not taking any position on this. It was just put in as correspondence because it was brought to us and put on the agenda. But the requested action was the Town Solicitor not represent us so that in fact has happened.

BOARD MEMBER WOODS: Mr. Craig is here. That is him.

CHAIRMAN PARTINGTON: Sorry, Mr. Craig. Could you tell me if I characterized that correctly.

MR. CRAIG: You characterized my letter correctly and I appreciate the action.

CHAIRMAN PARTINGTON: We will give you some noise making capability.

MR. CRAIG: Is it on now?

CHAIRMAN PARTINGTON: Can you hear me now?

MR. CRAIG: You characterized my letter very clearly. I have no further comments I'm pleased with the

action that has been taken.

CHAIRMAN PARTINGTON: Thank you, sir.

Okay. Next, under new business we have Major Subdivision and Land Development Invenergy Thermal Development LLC's, Clear River Energy Center, Wallum Lake Road, Burrillville; Map 120, Lot 7, Map 135, Lot 2, Map 137, Lots 1, 2, 3, and 21, Map 153, Lots 1 and 2, Master Plan Review and Informational Meeting.

The way this is going to work this evening or what we have been charged to do and Mike is going to tell you about this in a second, what we have been charged to do is look at it in conformance with the Comprehensive Plan. The Comprehensive Plan has many in it which are in favor this of development and many things which are not in favor of this development. The Planning Board has been asked to give an advisory opinion only. So this is not an approval. We don't have approval ability as you probably know already. It is with the Energy Citing Board. They have the approval.

However we have been asked for an advisory opinion on the project. So we the Planning Board we do what we normally do which is take all of the information we have, ask many questions, but, we do not have the ability to approve. We do have the ability to list its compliance with the comprehensive plan and with the noise ordinance.

Those are the only things that we have been told that we have any jurisdiction over.

So this evening, we have the Town's consultants here and we also have the applicant is here with their consultants and what they are going to do is make a presentation, both of them, on many of the issues and we have gotten a tremendous amount of information here on all of issues being discussed about the possible plant.

So, we have a presentation from our new representative town solicitor. Tom is going to detail what will happen when the public is set and ready to speak. We will have our consultants go first and then Invenergy and then open it up to the public for any comments they have. And, the Planning Board will be asking questions as we go along.

Hopefully we ask questions and they may answer a lot of yours this evening. We can go until 10:00. And hopefully by the time you are done we have answered all of the questions you may have. So without further ado.

TOWN PLANNER KRAVITZ: Jeff, I will just make mention before I pass it to the attorney, Attorney McElroy, I have a red book here. It is a sign-in sheet for those people who want to present verbal or written testimony. It will be good that you sign this. To the extend people want to sign it and do that because I only

see five names here, I'm going to put the book here, ask you come up and sign in if you want to speak. By the time we get to that portion we will be ready to go with that. You will have five minutes to speak and I have my little count down to count down five minutes. With that I will give it to Mike.

ATTORNEY MCELROY: Thank you, Tom. Thank you, Mr. Chairman. As people have said, my name is Mike McElroy, Assistant Town Solicitor. I will be advising the Planning Board this evening.

As we said, the Planning Board is sitting at the direction of the Energy Facilities Siting Board commonly known as EFSB. They ordered the Planning Board to render an advisory opinion regarding two specific matters, one the Invenergy facility would be a land use consistent with the Town's Comprehensive Plan, and two whether Invenergy will be able to comply with the Town's Noise Ordinance during construction and operation.

In addition, EFSB asked the Zoning Board as to whether the facility will meet the requirements of the Town Zoning Ordinance and whether any variances should be granted. Two, whether a special use permit is needed to be granted and prevent facility from construction or restrictions and three whether it will be able to be compliant with Burrillville Noise Ordinance during

construction and operation and if not whether a variance should be granted.

The following are the ground rules that we have established for this. The experts hired by the Town to advise the Planning Board will individually present summaries of their findings. They will then be questioned by the Planning Board and by Invenergy. I believe most, if not all, of the Town's expert reports have already been posted on the Town's website. It is possible that additional or supplemental reports will be published in the future that may be considered before the Planning Board issues its advisory opinion.

I believe the Town intends to post things such as additional or supplemental reports on its website. Two, after the Town's experts present their information, Invenergy will be given an opportunity to present its expert witnesses and then they will be questioned by the Planning Board.

Three, after the experts for both the Town and Invenergy have finished their presentations there will be opportunity for public comment. Public comment will be limited to those who have signed the public comment sign-in sheet that Tom put down on the stage.

Public commenters will be called to provide their comments in the order which they are listed on the sign

up sheet. As Tom said, each commenter will be limited to a maximum of five minutes and this limit will be enforced using the IPad and a little bell will go off when it reaches zero.

No commenter will be allowed to speak more than once. Commenters should direct their comments only to the Board. Commenters are not allowed to directly question the town experts or Invenergy experts. If a commenter would like to have a question presented to any of the experts a commenter should pose that question to the Chair.

The Board will then decide whether it wishes to explore the suggested question with any of the experts. However, any time spent exploring those questions with the experts will count toward the commenter's five minute limit. It is the Board's intention to conclude this hearing no later than 10:00 p.m. tonight. We are hoping to get it done and not continue it to another day but if we don't get done we have to decide at that time the best way to handle it.

The Town is going to go first in the presentation of its experts and we will have a little preview of coming attraction. First we will deal with noise issues through Mr. Hessler, next issues of air quality through Mr. Epner, next ammonia issues from Mr. Hevner, next traffic

issues with Mr. Jackson, next Mr. Jackson will also handle master plan review and finally on MTBE, water and sewer Mr. Jackson and Mr. Hevner will both present. So that is the schedule.

TOWN PLANNER KRAVITZ: I would just say that for those people submitting written comment, please give it to me over here and I will be collecting it.

ATTORNEY MCELROY: Thank you. Prior to the testimony of each of the expert witnesses we are going to ask the court reporter to swear them in and if it is okay Mr. Chairman we will bring up the first Town's witness.

CHAIRMAN PARTINGTON: Very good. Thank you, sir. David Hessler, please.

DAVID M. HESSLER,

called as a witness, being duly sworn, testified as follows:

THE COURT REPORTER: Please state your first and last name and spell your last name.

THE WITNESS: David Hessler, H-E-S-S-L-E-R. Good evening.

CHAIRMAN PARTINGTON: Good evening, sir.

MR. HESSLER: Well, I have submitted my report already. As is mentioned, and I just want to very briefly touch on the salient points that I think are important to the Town. Two of them have to do with the

the Town Noise Ordinance and the third one is a technical issue, talk about that at the end.

On the Town Ordinance, it limits the noise for the facility to 43 dBA at night and 53 dBA in the day. And now because this plant is going to run around the clock at times, 43 is the effective limit on the facilities by the Town Ordinance.

Now, that number is actually unusually demanding. It is below most other jurisdictions overall noise limits. Typically 45 is about as low as any state or local government limits noise. So, 43 is low and demanding and, in my opinion, adequately protective of the community. It is a good number. It is unusual.

In most instances, the ordinance limit will be some high number and the plant really needs to be designed to lower the number to avoid disturbance. In this case, the two are kind of consistent. 43 is a good number, design number, even if there were no ordinance, that is a good number to design this plant to and that applies to all of houses around there, but effectively the plant would need to be designed to satisfy that nearest house just to the east of plant.

Anyway, the number of 43, 43 dBA limit, I think is a good one. Now, to put it in context, in our work over the past three decades, what we found is any kind of

facility power plant, wind turbine, if the level is 40 dBA or less people are not bothered by that. It is, it is so quiet that people just learn not to worry about it and 43 is not appreciably louder. So I think, I think it is a good limit.

Now the second part of the ordinance is that the, that there is also limits on the frequency spectrum, all octave limits. So, in effect the ordinance has ten limits, nine across the frequency spectrum and then this overall 43 number.

Now, the octave band limits in there are under the 43, unusually low but the octave band limits are extremely low. They are way below the norm for regulatory ordinances expressed in occupants. And it is particularly onerous and lower frequencies, the ordinance limits are so low that the background level out there right now is probably in violation and that is even if the compressor station were not operating.

So, they are unusually low and unnecessarily low. So, what I'm suggesting is that well, first of all, Invenergy has petitioned for a waiver on that and I think that is a legitimate request and there is no need to make those octave band limits.

It is true, if the plant met them it wouldn't sound any quieter than if it didn't meet them. It is a little

bit difficult to explain but both frequencies, you don't hear the low frequencies. There is no reason for the plant to meet them and it is totally impracticable any way.

The limits are equivalent to a zoning ordinance that says you can't build a house higher than four feet. It precludes anything and there is no reason for it. As long as the 43 is met, the sound level will be, I believe, satisfactory.

So, now the last bit is start up noise or transient noise. Now, most people think that when the plant is running at full load that is when the noise is maximum. That is not the case. The maximum noise occurs during startup usually 5:00 in the morning, when it is shut down, usually 11:00 at night, right when you don't want it to be noisy, quite often very noisy, much more than during normal operation.

So the thing here that is important is that the facility be designed to maintain that 43 during all operating modes. That is very important for this plant because it uses air condensers and they are particularly prone to very high levels of startup levels, so I have been highlighting and underlining that. It is very important that the plant maintain that level during start up and I think the point has gotten through.

And Invenergy has commissioned a special study to examine it, to examine startup noise and done a good job on that. And I'm a little bit leery about some of the assumptions of the model but importantly they have committed to maintaining 43 at all times.

And they have committed or said that the EPC contractor that is building the plant is going to have to guarantee that the plant maintain this 43.

Now, that is very important because these EPC contractors take these guarantees very, very seriously and will do whatever needs doing to meet it. It is going to be expensive. It is going to be difficult but we have it in writing, it will be sorted out and I'm comfortable with that.

CHAIRMAN PARTINGTON: Can you detail some of the things that they would need to do if they don't meet that?

MR. HESSLER: Main issue is the steam turbine bypass during startup, where all the steam production goes through the condensers through the steam turbine, so extremely high pressure and gets injected into this vacuum in this large duct and essentially an explosive process, very noisy.

So when what is typically done, and what is going to be done here is they are going to use low noise valves

which will help, and if I were designing this plant, I would ask beyond that and include other measures like very heavy lagging on the duct. I wouldn't rely on the guarantees actually.

There is a lot of things that could be done including, and just a thought, is to extend the turbine building to completely enclose this duct so it is in the building because you can't make it too quiet because the plant during normal operation is going to be designed to do 43, so, there is no room for additional noise for startup. Startup has to be negligible. So you can't really overkill it. So, I would take quite a few redundant precautions to try to get that under control. But I think it can be done. And, I think that completes the summary. So I --

CHAIRMAN PARTINGTON: Thank you.

BOARD MEMBER WOODS: I have a question. Good evening, Mr. Hessler, thank you for coming. Most of us here, including myself, are not really as schooled as you in noise. However, I have done a lot of reading the last few days and looked up some things and found out that dBA is a weighted noise system. And, I was wondering if you could explain to me the difference between, we will say 43 dBA and 44 dBA, the difference in sound. Is that inaudible? Something that you hear or?

MR. HESSLER: No, that wouldn't be audible. In general, the difference has to be more than about five dBA before you are able to tell that the sound is different. So the difference in one dBA is totally acceptable, 3 dBA is maybe barely perceptible and five, most people would say, yeah, I'm starting to hear it get a little bit louder, starting to change. Then it rapidly increases. It is expediential. So at ten dBA difference all you hear is other sound. It is completely different.

BOARD MEMBER WOODS: I was under the understanding every increase in number is ten times the sound. Is that true?

MR. HESSLER: Yeah, it is a logarithmic scale. So, three --

BOARD MEMBER WOODS: So let's say from 40 to 50 dBA to make it more easier to calculate how many, how much louder in time, is it 50 more? Is it a thousand more?

MR. HESSLER: No, the difference between 40 and 50, that ten dBA difference, it would sound twice as loud.

BOARD MEMBER WOODS: So that is significant?

MR. HESSLER: Yes. Ten is a big difference. It is huge. Anything from zero to five is very subtle and you might not even notice it.

BOARD MEMBER WOODS: So if they are designing this plant to meet a maximum number of 43 dBA, the last time

you were here and correct me if I'm wrong, but at startup and shutdown you were saying that dBA would be around 84?

MR. HESSLER: 43 is at the nearest house, thousands of feet away from the plant, whereas in the plant next to typical equipment the sound level might be about 85 or more.

BOARD MEMBER WOODS: In your report you say, you just mentioned about the valve, was that a manufacturer created a valve that could do that and that is something I think we would both like to see.

The likelihood of that happening on startup and shutdown to be only 43 dBA, in your estimation is that a probability?

MR. HESSLER: I think it can be done, but it will take --

BOARD MEMBER WOODS: Has it been done ever that you know of?

MR. HESSLER: At every plant with an air cool condenser that I have ever been too they have been loud even though those valves have been used. That is why I say I would use redundant measures, enclosing the duct, lagging the duct, everything possible that you can throw at it because there is no room for anymore noise.

BOARD MEMBER WOODS: Have you ever taken dBA calculations from different sites in that area?

MR. HESSLER: Many sites. Yeah. Yeah. I have been on going along these ducts measuring one foot away the whole length in many plants.

BOARD MEMBER WOODS: I mean more recently, the compressor situation, have you taken any readings from that?

MR. HESSLER: No, no.

BOARD MEMBER WOODS: I think there will be a lot of testimony that it can be very loud taking dBA and a compressor station and clear energy power plant, we don't add them together because it is a different system of measuring algorithms as you said. But nevertheless there is an addition to that by the noise, am I correct?

MR. HESSLER: Well, the situation is the compressor station noise from the data that I seen ranges from 41 to over 50 depending on I guess what equipment is running at the time. What that means is if the new plant comes in at 43, a steady level at 43, most of the time the compressor station will just completely cover it up and it will sound exactly the same at the houses.

BOARD MEMBER WOODS: Well, if the power plant meets the 43 dBA and the compressor plant, I believe because it is federally licensed is 55 dBA, I might be wrong on that, I think they can go up to 55 dBA, let's say they are both at the max of 55 and 43, would be what?

MR. HESSLER: 55.

BOARD MEMBER WOODS: The noise will be, you will actually be 55, which is twice as much noise as 43 or beyond twice as much?

MR. HESSLER: Yes, the sound level would be completely dominated by the compressor station if it is 55.

BOARD MEMBER WOODS: I'm trying to get a whole picture. You know what I mean? I mean the residents are concerned about noise. I want to look at everything to find out just how much noise is going to be coming through people's windows late at night.

MR. HESSLER: Yes. Exactly.

BOARD MEMBER WOODS: The difference between 43 and 55 is twice as much noise that is allowed.

MR. HESSLER: That is entirely due to the compressor station and to the power plants. It will not make matters any worse. What is needed is for the compressor station to be attended to.

See the 43 would not be contributive under the measure, the same level out there, whether the new plant was on or off.

BOARD MEMBER WOODS: You are just saying the compressor plant's 55, the 43 would be in addition to it?

MR. HESSLER: No, it would not be added to the total

level, would still be 55, and you wouldn't hear the new plant at all.

BOARD MEMBER WOODS: So then, the power plant could be running at 55 and no one would notice it. Is that what you are telling me?

MR. HESSLER: If the compressor station, if the compressor station were running at 55 and the new plant came on, there would be no change. The 43 plus 55 equals 55 in there strange logarithmic of sounds.

BOARD MEMBER WOODS: I'm going to do this one more time so I understand it, if that is okay.

MR. HESSLER: Yes.

BOARD MEMBER WOODS: If we have 55 dBA plus 43 dBA, the noise would be.

MR. HESSLER: 55.

BOARD MEMBER WOODS: 55.

MR. HESSLER: Any level that is about ten below another level is completely noncontributory. It is not doing anything. It is like whispering in the presence of a fire alarm going off. All you hear is the fire alarm.

BOARD MEMBER WOODS: Let's talk about active. You said that the frequency, and again I'm, I'm -- you are teaching me something. Octave bands, if they are so low that we wouldn't be hearing them, why are they asking for a waiver?

MR. HESSLER: There is no reason for the new plant sound level to meet those octave bands. First of all, it is technically impossible and even if the method, it wouldn't sound any quieter. There would be no benefit for the community as long as the total level is 43, that is really all that counts. That is what they hear. A raid level is inaudible sound. It is better than some number rather than.

BOARD MEMBER WOODS: It is in our ordinance. It appears to me that you know you are trying to pick out, pick away at the ordinance as something wrong with our ordinance versus there is something wrong with the sound. If we are calling for it not to be in frequency, tell me how you are going to meet that or if you can't, or can you meet that?

MR. HESSLER: No, the low frequency bands 31 to 125, hurts the limits on them in the ordinance. These are so low that I think like I mentioned, I think the background level is higher than that.

BOARD MEMBER WOODS: I understand but the background noise is crickets.

CHAIRMAN PARTINGTON: Mr. Woods, please. May I.

BOARD MEMBER WOODS: Have you a question, too?

CHAIRMAN PARTINGTON: Thank you, sir. The gentleman was hired by the Town and you asked several questions and

he has answered them. He has given his thoughts as to what they are. So, in the interest of other members also asking questions because --

BOARD MEMBER WOODS: That is why I just asked.

THE SPEAKER: They are totally differently, different than the last time he talked.

BOARD MEMBER WOODS: I understand.

CHAIRMAN PARTINGTON: I apologize. I didn't mean to cut you off. But we could debate with the gentleman for a long time. His opinion is his opinion. That is why. That --

THE AUDIENCE: His opinion today is different than last time.

BOARD MEMBER WOODS: Continue.

BOARD MEMBER PRESBREY: No questions.

BOARD MEMBER PICK: I just have a couple of quick questions. The executive summary report indicated that the startup to shutdown would be ten to thirty minutes. You reported that it was more likely to be forty minutes to two hours. Where is that discrepancy coming from? Why is there such a large discrepancy?

MR. HESSLER: Forty minutes to two hours is just what I have seen being at dozens of these plants while they are starting up.

BOARD MEMBER PICK: So I will need to ask them why

they feel that the startup would be ten to thirty minutes. Have you ever even seen a start up of ten to thirty minutes?

MR. HESSLER: Thirty minutes is too short. There is no way.

THE AUDIENCE: Another lie.

BOARD MEMBER PICK: Typical startup or shutdown at plants is greater than thirty minutes just to be clear?

MR. HESSLER: Yes. Yeah, yeah.

BOARD MEMBER PICK: I understand that they are talking about using these bypass valves are going to be indoors, they plan on using these low noise valves, steam charge shack resistors, silencers on the vents, you just testified that you don't feel those are adequate resources to keep the noise levels down.

MR. HESSLER: Yeah. The lower noise valves, those disks that valves are more or less standard practice these days, but they don't completely eliminate the noise. It is not real quiet. I have never seen one actually be down at the levels that have been assumed in the analysis. So I'm leery of that, and I would not trust those numbers and enclose the duct or at least put something in the duct if nothing else just as a precaution. I think that will definitely be needed.

BOARD MEMBER PICK: Have you seen that at other

locations where they enclosed the duct or lined the duct?

MR. HESSLER: Yes. Back in the early days nobody used low noise valves. Nobody knew about that at those plants, bypass noise was absolutely tremendous. I think I mentioned briefly the last time, the first plant that I saw this at was in England and they didn't have low noise valves and the plant started up and to everyone's surprise it was tremendously noisy and they had to scramble for a solution and brought in truck loads of hay bails and buried the entire duct in a human wall of hay bails because people and the village, kilometers away, were up in arms and rightfully so.

So the next plant that I worked on for the same company also in England, they said all right this time we are going to do it right. We are not going to make this mistake. We are going to use low valves, build an enclosure over the first half of the steam duct as a precaution. We have a guarantee from the valve manufacturer that is going to be 78 dBA outside the duct. Those numbers are similar to the recent analysis here. The plant started up. It was 100 dBA outside of the duct and this was at a every good intention and low noise valves, everything that we could do, it was still loud.

So, the enclosure that I had recommended to put halfway down the duct, it had to be extended the rest of

the way and rest of the system, it to be lagged at huge expense. So, I have not seen one successfully since then, every other --

BOARD MEMBER PICK: Why is it your opinion that they would be able to maintain the 43 dBA?

MR. HESSLER: That is what I keep saying. Because it has been guaranteed and the EPS contractor will not just bail on that. They will have to make it right or else they will be subject to liquidated damages. And, so, they will have to design it with extreme diligence to enclose the duct.

BOARD MEMBER PICK: One more question.

CHAIRMAN PARTINGTON: Sure.

BOARD MEMBER PICK: Is there a way of providing some kind of a model test that it has never been done or has it been done or is there a way to model test that construction that would allow us to see whether it would meet that?

MR. HESSLER: Well, the only way that I would believe the valves were going to work as promised would be to witness it at another installation. Now, I have never seen one that has worked.

BOARD MEMBER PICK: Thank you.

CHAIRMAN PARTINGTON: Questions.

VICE CHAIRMAN FELICE: Mr. Hessler, thank you very

much for your patience. I just want one, and it is slightly redundant, one definitive question. This is based on your experience, your knowledge, your being in the field, is this plant in your opinion the type of plant that has the capabilities of maintaining this decibel level consistently, yes or no?

MR. HESSLER: I think it can be done but appropriate attention has to be paid during the design phase. It can't be just glossed over and considered a retrofit.

VICE CHAIRMAN FELICE: Based on what you see in your experience, do you see that happening consistently without extraordinary measures taking place?

THE AUDIENCE: Yes or no. You are under oath.

MR. HESSLER: I think it is going to be very tough.

CHAIRMAN PARTINGTON: Excuse me one second, sir. Ladies and gentlemen, please, the gentleman is trying to give you an answer. The gentleman has been hired by the Town to give you an answer. Even though you may not agree with what he has to say and you may not believe what the applicant is telling you, he is trying to give you an answer. So please allow him to do so. Continue, sir.

MR. HESSLER: Yes, I think it can be done.

VICE CHAIRMAN FELICE: That is not my question. My question was: In your experience with these plants have

you seen any be consistently maintained?

MR. HESSLER: No, never seen an ACC that way before.

VICE CHAIRMAN FELICE: Thank you.

CHAIRMAN PARTINGTON: Thank you, sir. Anyone else have any questions. Gentleman?

SECRETARY FERRIERA: Mr. Hessler, first question I have is: Did the hay bails work?

MR. HESSLER: Not really.

SECRETARY FERRIERA: Have you seen any plans for this facility yet?

MR. HESSLER: I have seen site plan. I haven't seen the details.

SECRETARY FERRIERA: Four towers, that is what we have seen, a couple of artist renditions here, and it seems like what we are talking about is not incorporated anywhere on what we have seen.

MR. HESSLER: That is not unusual at this stage. Those things have not been detailed yet.

SECRETARY FERRIERA: Everything right now is strictly conceptual.

MR. HESSLER: Which is good because there is time to design it properly.

SECRETARY FERRIERA: Okay. What would be the possibility of saying berming the entire building or high noise making facility using berms to surround that area

to cut back on noise?

MR. HESSLER: I'm not sure I understand the question.

SECRETARY FERRIERA: Along with the sound reducing things you have mentioned so far, that you mentioned with the duct and valves and all, what about just surrounding the high noise making areas with earth to help deaden the sound instead of hay bails?

MR. HESSLER: That goes to what I alluded to before, I think it would be a good idea here and I'm not trying to dictate the design but what I would think about is bringing turbine building out so that it encloses this whole duct mantel and keeps it in the building. I think that would be very effective.

CHAIRMAN PARTINGTON: One last question, if you did put an earth berm as Bruce suggests, it would simply, if my physics are correct, it would not mitigate but send it in a different direction.

MR. HESSLER: It would not send it anywhere but wouldn't block it anywhere. It would just go over the top, not worth doing.

CHAIRMAN PARTINGTON: Thank you. Anyone else? Okay.

ATTORNEY MCELROY: Mr. Chairman.

CHAIRMAN PARTINGTON: Yes.

ATTORNEY MCELROY: If the Board is done, I think Invenergy should have the opportunity to question Mr. Hessler. And, before we begin that process, I do have a legal suggestion with regard to the Board and with regard to the issue when the Board makes an advisory opinion, it could make a strong condition that a condition be placed on the operating permit of the plant and continuing condition that it must at all times of operation meet 43 dBA, the EFSB under the law has strong enforcement powers if they don't meet that 43 dBA, the EFSB can take strict action against them. So I would strongly suggest the Board in its deliberations if it choses to issue an advisory make the advisory condition on that continuing obligation.

CHAIRMAN PARTINGTON: Thank you, sir. Mr. Hessler, we have one more question here and then I also have one.

TOWN PLANNER KRAVITZ: While we are at it, I was going to suggest that the Board along the lines of what Michael mentioned here, perhaps consider that Mr. Hessler, his condition be included in design and construction of the matter to make sure that it is not overlooked.

CHAIRMAN PARTINGTON: Mr. Hessler, in your testimony you listed that there are some active measures that they can take in order to mitigate that and I believe you said

they tend to be very expensive but there are some things that you would suggest.

Could you enumerate some of those? You said enclose the building. Is that the only one or the main one?

MR. HESSLER: The principal thing I think would be to extend the turbine building so that it encloses the ACC steam duct, the horizontal portion and some of the risers. Now the ACC is generally bigger than the building so any parts of distribution manifold are outside, I would heavily lag with sound proof lagging on there. Use below noise valves and there are other things that are going on that also need attention.

There is a drain tank near the steam turbine that, it is normally ducted into the steam duct. That is a real problem but here it is going to be vented, which is much, much, better. But that vent will require a very large sound surrender to take care of that, but that is the best way of doing that, and another aspect of this is that there is an air ejector that creates a vacuum in the condenser. There are two ways of doing that, there is a noisy way and a quiet way, they are using the quiet way using vacuum pumps that are not that noisy at all. The other way there is no way to contain the other method but it is moot because they are not doing that.

CHAIRMAN PARTINGTON: What kind of material are

these made out of, the venting?

BOARD MEMBER PICK: The enclosures.

MR. HESSLER: This drain tank uses a prefabricated silencer. You are talking about the lager on the duct.

BOARD MEMBER PICK: Yes.

MR. HESSLER: It is a combination of fiberglass and mass loaded vinyl material which is lead substitute probably several layers of that.

BOARD MEMBER PICK: That is proven to be effective.

MR. HESSLER: Yeah, that is very effective.

BOARD MEMBER WOODS: Last question, Mr. Hessler. The dBA noise is at the, is measured at the closest residence which I believe is Long Lake Road. I remember years ago I lived up in the woods, lot of trees around me and one night I could hear music playing. I wanted to join this party. So I searched and searched 11:00 at night where this was coming from to find out it was Route 44 over a mile an and-a-half away.

My point is the guitar is made out of wood because it will amplify a noise that is similar to the drum, will the forest carry that noise further than dBA than it would in opposite space?

MR. HESSLER: No. The opposite. Wood is more containing sound.

BOARD MEMBER WOODS: So the forest will deaden the

noise?

MR. HESSLER: Not so much that the leaves and branches are blocking anything but mainly it is called ground absorption which is the ground in the forest area is more porous and actually absorbs sound energy.

BOARD MEMBER WOODS: So that music that I heard must have been very loud.

MR. HESSLER: Yes, very loud. Thank you.

CHAIRMAN PARTINGTON: Thank you, sir. So, it is Invenergy will ask questions of our witness.

ATTORNEY NOONAN: Thank you. Good evening, Mr. Chairman and members of the Board. My name is Elizabeth Noonan. I'm here with John Nieland (phonetic) who has been before you on this matter.

Mr. Hessler, just a few questions about, you have talked about the EPS contractor and your faith in the fact that these contractors have to meet certain conditions, correct?

MR. HESSLER: Yes.

ATTORNEY NOONAN: What does EPS stand for?

MR. HESSLER: Engineering Procurement and Construction. That is who I normally work for 99 percent of the time and they live in dread of missing their noise guarantees. It is a big deal.

ATTORNEY NOONAN: Thank you. And your report that

you have provided to the Town which is dated May 26, 2016, you had the benefit of the two noise reports that were prepared along with the responses to data requests, correct?

MR. HESSLER: That's correct.

ATTORNEY NOONAN: And, in your opinion at that time, you did conclude at Page 6 that the CREC facility will have minimal and generally acceptable noise impact on the community so long as the overall A rated nighttime ordinance noise limit of 43 dBA or less is maintained during all normal non emergency operating modes at all of the nearest residences, correct?

MR. HESSLER: That is absolutely correct.

ATTORNEY NOONAN: And that is still your conclusion, correct?

MR. HESSLER: Yes.

ATTORNEY NOONAN: Thank you. I have no further questions.

ATTORNEY MCELROY: If there are no further questions from the Board, we will present the next town witness.

CHAIRMAN PARTINGTON: Thank you, sir.

ERIC EPNER,

called as a witness, being duly sworn, testified as follows:

THE COURT REPORTER: Please state and spell your

full name for the record.

THE WITNESS: Eric Epner, E-R-I-C, E-P-N-E-R. I am with Fuss and O'Neill and my our job here was to advise the Town on the noise, advise the Town on the accuracy, completeness, and overall regulatory conformity with the applicants air permit application materials.

The State agency has been passed initially with that permit, a RIDEM Rhode Island Department of Environmental Management. The applicant has submitted three major documents in support of their project and air permit application then follows up with air disburse model report and health risk assessments and these three documents are daisies chained on because health risk assessments on its results of modeling and modeling is predicated on the permit application calculations and whatnot.

Those three documents are permit application in total was deemed to be administrative complete by RIDEM on or about April 26th. Administrative complete means that all materials were there. The actual technical review by RIDEM is going to take many months.

The documents were very technical in nature and they are large and there is just a ton of data there. Our job was to review those documents ourselves and give the Town third party assessment of their accuracy completely. In

short the documents do contain numerous errors and inconsistencies that are still kind of waiting to be cleared up. So, RIDEM I'm sure will be back with the applicant at some point asking for more information.

At this point, we can't say with certainty what the status of health risk assessment or the disburse model or permit application are. I can say based on my experience once RIDEM does get all of the information that they need and ensure compliance with the proposed project that the air impacts locally will be insignificant because that is the permit process is ultimately their goal.

So from a regional prospective the applicant's project is in all likelihood is approved for air quality, because it will submit security. The whole plant is coal fired or oil fired. So, that is the status of our review process right now. So we will continue to assist the Town looking at the documents that get submitted later on I think, like I said in likelihood this process will carry on for probably 18 months at least and RIDEM will be back and forth with the applicant to ensure that all of the materials meet their requirements.

CHAIRMAN PARTINGTON: What types of information are you waiting for at the moment?

MR. EPNER: Because of the three documents that were submitted over the course of a time there are some things

that are inconsistent between them. Property line and fence line have changed. We are not sure what the fence line is and there is modeling that is required to be done for discrete points on the fence line. So this is a highly technical process. There was some permit application itself in terms of errors in calculations that needed to be cleaned up and some documentation that we had asked for in terms of where certain emission numbers come from and we are told from the manufacturer but we don't see the paperwork from the manufacturer that documents that. So there are some things like that that RIDEM will require that and I'm sure we will see that at some point.

CHAIRMAN PARTINGTON: Are there other plants of similar design you use to determine whether the emissions are what they, what the design specs are? I don't know if I came across on that. Did my question make sense?

MR. EPNER: I think so. I will try to answer it and then you can tell me. The applicant is using a combination of predicted emissions some provided by the manufacturer, guaranteed by the manufacturer.

CHAIRMAN PARTINGTON: Okay.

MR. EPNER: Some are stack EPS published numbers based on data from hundreds of other plants and that is typical of projects like this and in New England.

CHAIRMAN PARTINGTON: Thank you. Gentlemen?

BOARD MEMBER PRESBREY: I just have one question, Mr. Chairman.

MR. EPNER: So, the inconsistencies and the errors that you have found in the reports, are you communicating with the DEM and what you have found, so have you pointed those errors and inconsistencies out to them?

MR. EPNER: Today we are not. If the Town wishes to share that information with DEM that is something we can do. Right now we are not. It is not our job to talk to DEM about this in its narrative.

BOARD MEMBER PICK: I just have a couple of very quick questions. I think this is in your area. I read that there is a potential for vapor intrusion. Is that your area?

MR. EPNER: It is not. I'm not familiar with what you are asking.

BOARD MEMBER PICK: That is fine. I would like a fifth grade answer to this question, very simple, because I can't get one. So I'm looking for an explanation of specific pollutant and hazardous substances that will be emitted from the plant and the potential and specific dangers to the surrounding population and communities.

MR. EPNER: The emissions from this plant principally would be products and combustion and are

those same pollutants that are always created when fluid is burned, whether it comes from a car engine or if it comes out the furnace in your house. So we are talking about very small amounts of matter because natural gas doesn't make soot because it is a gaseous fuel. And we are talking about oxides of nitrogen, which is called NOx typically, NOx along with pollutant organic compounds create ground level ozone. We also call it smog and carbon monoxide, small amounts because this is an efficient combustion process and carbon dioxide which makes up the bulk of the atmosphere and under potentially for climate change.

Now circling back to your question about local impacts. The whole process behind during the air disclosure modeling, which is a way of predicting where pollutants will impact actual places where people can breathe them, so power plants and large emission sources are designed to have fairly tall stacks and fairly high exit velocity vertically to disburse emissions into the atmosphere and typically but not typically but it would be required to show that they have no significant impact anywhere locally.

THE AUDIENCE: Are you serious?

CHAIRMAN PARTINGTON: Is there a difference between burning the gas and burning the oil? Is there a separate

set of mix standards for each fuel? That is my first question, and then the second question is it an average that the plant needs to use or is it -- are they separated by a fuel type.

MR. EPNER: They are proposing different hours of operation limits annually much smaller number of hours for oil than for gas, oil is really presumed to be a backup fuel for this facility. Oil does make dirty, quote unquote dirtier fuel. All emissions will be run through their oxidation catalyst, air pollution control system which is required to be the best available control technology that can be had.

CHAIRMAN PARTINGTON: So the emissions would be average between the two?

MR. EPNER: They have separate limits for each but hourly basis it is a summary.

CHAIRMAN PARTINGTON: Gentlemen?

SECRETARY FERRIERA: Mr. Epner, question on the emission testing from the facility, a new facility is tested for the first three months on a regular basis and then it goes into 30 day periods for testing for emissions and reporting to the EPA or?

MR. EPNER: I'm not sure what the exact requirements for this facility would be. But, a facility of this size would be required to be tested upon startup to make sure

it meets its requirements and then continue to be monitored foremost pollutants, to make sure they are in compliance with all of the emission standards.

SECRETARY FERRIERA: So it would be a continuous testing process then?

MR. EPNER: Yes.

SECRETARY FERRIERA: Is that testing through the stack or top of the stack?

MR. EPNER: Usually somewhere mid stack and somewhere in the flu that leads to the stack and that system that continuously monitors emissions is calibrated through a second stack that is like annually, usually annually where you know they bring in manual instruments to ensure that the continuous instruments are in compliance.

SECRETARY FERRIERA: Is there any kinds of circle or distance or perimeter around the plant where it is monitored on a regular basis when the pollutants or toxins are there?

MR. EPNER: Typically, no, and I don't see any evidence that that would be a part of this either. Regulatory agency would rely on a measure to ensure that no emissions impact above significant levels locally.

SECRETARY FERRIERA: I'm more concerned about any particulate that would be reaching the ground.

MR. EPNER: Particulate are extremely low from burning gas.

SECRETARY FERRIERA: Anything other than that that would be?

MR. EPNER: It is gaseous emissions.

SECRETARY FERRIERA: Thank you.

MR. EPNER: Sure.

BOARD MEMBER WOODS: So it is, what you are saying at this point is that they are meeting all of the requirements for air pollution or not?

MR. EPNER: Their application material state that, yes.

BOARD MEMBER WOODS: So how do they come up with the standards for that?

MR. EPNER: Standards are set by RIDEM and EPA and the applicant is required to meet those standards.

BOARD MEMBER WOODS: Is this a regional standard or local?

MR. EPNER: State of Rhode Island is the delegated authority to review the applicant materials and issue this permit.

BOARD MEMBER WOODS: 3.6 million tons of CO2 meets the standard, 3.6 million ton annually meets the standard in Rhode Island?

MR. EPNER: Yes.

BOARD MEMBER WOODS: So you say the stacks are going to be 200 feet high and the reason for that is to disburse the pollutants over a larger area.

MR. EPNER: High into the atmosphere areas.

BOARD MEMBER WOODS: These pollutants actually stay in the atmosphere or do they fall to the ground at some point?

MR. EPNER: For a great distance, yes. In fact, really the air, the background air pollution that you have in Rhode Island, none of it really originates here. It really comes from hundreds and thousands of miles away. Most of the air quality problems experienced in the Northeast are from the Ohio Valley by co-front pilots.

BOARD MEMBER WOODS: In your opinion and this is my point, will that air standard be higher or lower than what the air quality is right now? I mean Burrillville is kind of touted as having good quality air and Burrillville Hospital is up here for that reason and simply people move here because of the air quality. So do they have that, more pristine air than the rest of Rhode Island and will they be polluting our pristine air locally?

MR. EPNER: No. Assuming.

BOARD MEMBER WOODS: They will not effect our air at

all?

MR. EPNER: If the applicant meets all of the requirements and RIDEM meets the regulations. The designs are designed to be direct protective health and it is relied upon there are no significant impacts to the local authority.

BOARD MEMBER WOODS: In your report on another question, second page there is a list EPS has set the national ambient air quality for six principal pollutants which they are listed and I don't see nitrogen dioxide there.

MR. EPNER: Nitrogen dioxide is the actual delegated, the name of the pollutant.

BOARD MEMBER WOODS: What is nitrogen dioxide? What is NOx? What does that mean?

MR. EPNER: NOx includes mostly nitrogen dioxide and also nitrogen oxide NO but as a group we refer to them as NOx.

BOARD MEMBER WOODS: These are all regulated by Rhode Island DEM.

MR. EPNER: Ambient air quality standards are set by EPA and RIDEM has in turn designed a regulatory system that EPA approves that is designed to make sure that Rhode Island maintenance the status they are in compliance with all of the air ambients air quality

standards set by EPA.

BOARD MEMBER WOODS: Thank you.

SECRETARY FERRIERA: One more question. Burning, looking at burning natural gas right now as a fuel, what happens to the standards from when the switch over to diesel fuel is made or if it is made.

MR. EPNER: All of the same basic principles apply, regulations, the permit will be issued in order to ensure that the proposed project is in compliance with whatever emission standards are applicable and those standards, the modeling that is performed to ensure that they are there is no ambient air impacts.

SECRETARY FERRIERA: So they just go into the total figure then.

MR. EPNER: Yes.

SECRETARY FERRIERA: Thank you.

CHAIRMAN PARTINGTON: Thank you, sir. One more question. You were talking about standards for the State. Is that an average so everything in the State that pollutes or what have you is that sort of an average for the State or is that just what naturally exists?

MR. EPNER: The regulations for a facility like this, there are numerous standards for equipment of this kind and in addition to that, the project for the major pollutants is basically required to install you know the

best available control technology, meet the lowest standards that are technically possible.

CHAIRMAN PARTINGTON: Thank you very much. Anyone else?

BOARD MEMBER PRESBREY: I have a question for you, Mr. Chairman. Can we request that Fuss and O'Neill submit to DEM the inconsistencies in the areas that they found in the reports that they received?

CHAIRMAN PARTINGTON: Why don't you?

BOARD MEMBER PRESBREY: Is it possible for the Board to ask that Fuss and O'Neill submit to DEM and the EPA the inconsistencies in the areas that they found in the documents that they reviewed that were presented by Invenergy?

ATTORNEY MCELROY: Mr. Chairman, I have met with DEM and its legal counsel and offered to provide Mr. Epner's conclusions to DEM and they said they wanted to consider that and think about whether or not they wanted us to do that at this stage and they would get back to us. So that offer has been made.

CHAIRMAN PARTINGTON: Okay. And at the very least we could certainly say that as part of our advisory opinion we think that should be included in it.

ATTORNEY MCELROY: Absolutely.

CHAIRMAN PARTINGTON: That could be incorporated

that. Okay. Sorry, Elizabeth.

ATTORNEY NOONAN: Mr. Epner how long have you practiced and worked with RIDEM?

MR. EPNER: I have been with Fuss and O'Neill for 31 years and have done numerous projects from all the surrounding states.

ATTORNEY NOONAN: As you stated, the application for the RIDEM permit was submitted, is it normal such that there would be some back and forth exchange between the applicant and RIDEM after the certificate of completion?

MR. EPNER: Yes.

ATTORNEY NOONAN: If I might, Mr. Chairman and members of the Board, RIDEM has asked for some additional information and modeling from the applicant and rather than sort of do it piecemeal, they have taken the comments from RIDEM as well as the comments that have been provided by Mr. Epner, those will be submitted on an addendum to RIDEM and we are happy to make that and will provide that to the Town and to Mr. Epner.

CHAIRMAN PARTINGTON: Thank you. We appreciate that, yes.

ATTORNEY NOONAN: I have no further questions.

CHAIRMAN PARTINGTON: Thank you. Mark.

ATTORNEY MCELROY: Mr. Chairman, I will present the next witness and the issue will be the issue of ammonia,

Mr. Hevner will present that.

THOMAS HEVNER,

being duly sworn, was called as a witness and testifies as follows:

THE COURT REPORTER: Please state and spell your last name for the record.

THE WITNESS: Thomas Hevner, H-E-V-N-E-R. I'm Tom Hevner and I am a Sovereign consultant, which is part of the team for on-call review with McGuire Group and we were tasked to take a look at the proposed ammonia storage facility. The proposed ammonia storage at the facility is going to be used for plant air omissions. It is 40,000 gals of aqueous ammonia at 19 percent concentration. Because it is at less than 19 percent less concentration it is not subject to EPS risk management requirements that typically include enhanced protective envision for the operation, use, storage and transport of ammonia as well as impact zoning analysis in the event of a release of ammonia.

The EPA air regulations do have a general duty clause and the general duty clause as it pertains to the storage and use of ammonia in the proposed facility is known hazards, proposed chemicals in assessing the impacts of possible releases, designing and maintaining a safety facility to prevent accident and releases and

minimizing consequences of accidental releases that do occur.

The recommendations that we provided included since the cutoff from the ammonia under the RMP, the Risk Management Plan, regulations is 20 percent. It may be advisable for the power plant project team to evaluate potential risk under our RFP, risk management applicant, which includes risk analysis. It was also proposed that maybe a less hazardous chemical then 19 percent ammonia could be considered.

I'm not an air expert but I understand that to get to NOx emissions whether you need it to be used you can't use, it might not be possible to use anything else except the 19 percent ammonia and also the Pascoag Fire Department should be consulted concerning equipment and training to respond at the proposed power plant.

CHAIRMAN PARTINGTON: Thank you, sir. Is 19 percent an unusual thing or, what they are trying to do here out of normal industry standards?

PROGRAM MANAGER HEVNER: Chemicals are provided at different concentrations. 19 percent is industry standard. It is used at other facilities.

CHAIRMAN PARTINGTON: So this is not an unusual thing for this particular plant?

PROGRAM MANAGER HEVNER: No.

CHAIRMAN PARTINGTON: Yes.

BOARD MEMBER PRESBREY: 19 percent ammonia, can you tell us what concentrate a bottle of, a standard bottle of what you purchase is?

PROGRAM MANAGER HEVNER: I can't answer that question.

BOARD MEMBER PRESBREY: Can you explain in say a perfect scenario the outcome of say the wind was blowing the proper way to somebody a thousand yards away of the illnesses and effects that might have on say a child or an adult and then as an elderly person?

PROGRAM MANAGER HEVNER: EPA under risk management plan regulations has an impact zone analysis model that can be used to determine those characteristics. That was not part of the work that we did. But it is possible to figure it out under the EPS RMP regulations.

BOARD MEMBER PRESBREY: Thank you.

BOARD MEMBER PICK: You have suggested that the Pascoag Fire Department be informed and that they be educated about this. With all due respect to our Department, I'm not quite sure they are prepared to handle something as large as something like that should the whole thing go or a quarter of it go, what would be an emergency response procedure if something were to happen?

PROGRAM MANAGER HEVNER: The power plant team would have to put together a response plan. They are going to have response plans for the storage of fuel oil at the facility and also have response plans for the storage of hazardous chemicals at the facility, too. I wouldn't be able to speculate what they are proposed. I have not seen what they proposed at this point.

BOARD MEMBER PICK: Let's talk hypothetical. What would a typical response plan be? This is our Town, sir.

PROGRAM MANAGER HEVNER: There would be shutdown procedures for the usage of the chemical. There would be spill kits. In this case you probably have gaseous release, you have notification protocols that have to be in place.

Maybe there would be an emergency response contributor that would be involved. There are a number of different variations that could be in response for the release of ammonia.

BOARD MEMBER PICK: Has there ever been a berm installed for something like this?

PROGRAM MANAGER HEVNER: Not to my knowledge.

BOARD MEMBER PICK: Okay.

PROGRAM MANAGER HEVNER: It is going to be airborne if there is a release of ammonia.

BOARD MEMBER PICK: Right. Okay. One last

question, what potential other chemicals could be used in place of ammonia?

PROGRAM MANAGER HEVNER: I'm urea could be potentially used but it is not effective in NOx emissions to get the NOx emissions where they need to be.

TOWN PLANNER KRAVITZ: If I could, because Pascoag issue was mentioned. I want to remind the Board, May 9th I put a staff memorandum out to local government interdepartmental, the comments of Pascoag Fire Marshal, gave him a copy of the plans and I did ask that, this was followed up with a conversation with Mr. Carter because he is the fire chief there and he said that he was sending a letter on 5/19. He said he would send me a letter. I don't have that letter yet.

What I asked of him was, Mr. Carter, it is understood in discussion about Invenergy, they will to train the fire district for special hazmat training. Is Pascoag Fire District comfortable with what has been offered to the Department and do you require additional equipment from Invenergy. And please feel free to provide the Planning Board any comments. I reached out and have not heard back from them but just so you know.

CHAIRMAN PARTINGTON: Thank you.

SECRETARY FERRIERA: Tom, what about the Department of Public Works Highway Department, have they been

brought in on that as well?

TOWN PLANNER KRAVITZ: Yes, they responded and police and Pascoag Utility responded. We are in pretty good shape with getting the comments.

SECRETARY FERRIERA: Can I go back to Mr. Hevner, please. 40,000 gallons that we are talking about 19 percent is going to be in tank that is not ejected? What am I saying? Sorry. The tank that is holding the ammonia solution shouldn't that could be in some kind of area for safety?

PROGRAM MANAGER HEVNER: Not to my knowledge.

SECRETARY FERRIERA: Thank you.

BOARD MEMBER TREMBLAY: I think we are talking about responses to gaseous releases, and I'm not sure if we should be thinking about what is going to happen when there is a spill because it is going to be off in the atmosphere, just a chlorine spill in water a treatment plant they vent it to the atmosphere. I think what we need to be addressing is preventing that kind of release to begin with. And I guess my question would be are there, and maybe you don't have those kind of, that kind of information from them yet which is part of the problem, is how -- do they have preventive measures in place? Because, we are talking about transporting this material on our roads up there in these tanker trucks?

Is that how it is transported?

MR. HEVNER: There are daily inspection protocols that stores these type of chemicals that have to be undertaken. They have checklist protocols. That is pretty standard with any kind of complicated facility like this.

BOARD MEMBER TREMBLAY: What we need to be looking at is what sort of measures are going to be installed at the beginning of the process to safely store, transport, store and utilize this basically gaseous chemical that, because we don't want to get to a point where they are responding to a spill because the spill is gaseous.

MR. HEVNER: No.

SECRETARY FERRIERA: One more, sir. How long will that 40,000 last them? I mean the 40,000 gallons? Do you have any idea how long that would last in operation?

MR. HEVNER: That would be a question for the power plant team or possibly air emissions.

SECRETARY FERRIERA: I'm thinking about two million gallons of diesel that would last in comparing the two? Sorry --

MR. HEVNER: The diesel would be used quick over a period of a few days during the wintertime. I'm not sure the usage rate of ammonia. We would have to look at those plans, what protocols are, and how to operate with

it. Right now it is just a tank on a diagram and it is referenced in the application with the citing board.

SECRETARY FERRIERA: The last meeting that we had with Invenergy, we were told when they swap over to diesel we were looking at approximately three deliveries per hour. So 9,000, 2700 gallons of diesel over crossroad every hour, and I was wondering if that is two million gallons of diesel that is being used up inside of three days time, how long would this 40,000 gallons of ammonia last them in the normal operation? We will have to ask Invenergy when they come.

BOARD MEMBER WOODS: I have another question. What specifically is ammonia used for?

MR. HEVNER: It is used as part of the air pollution controls related to nitric oxide emissions. I'm not an air pollution expert.

BOARD MEMBER WOODS: I'm trying to -- so they put then the amount of pollution, ammonia is used as a cleansing process, if you will. Is it injected into these smoke stacks to help clean the emissions.

MR. EPNER: The ammonia would last in the stack with gas with the oxide nitrogen and DOC and carbon dioxide in the presence of catalyst to serve to reduce the emissions.

BOARD MEMBER WOODS: That is the only purpose of

ammonia.

MR. EPNER: Yes.

BOARD MEMBER WOODS: It is not for cleaning turbines or disinfecting laundry?

MR. EPNER: I didn't hear your question.

BOARD MEMBER WOODS: It is not used for disinfecting laundry.

MR. EPNER: State of the art air emissions control for this type of process.

BOARD MEMBER WOODS: All right. Thank you.

CHAIRMAN PARTINGTON: Thank you very much, sir.

ATTORNEY NOONAN: I have no questions.

CHAIRMAN PARTINGTON: Thank you.

ATTORNEY MCELROY: Next witness will be dealing with traffic issues and that is James Jackson.

JAMES JACKSON,

called as a witness, being duly sworn, testified as follows:

THE COURT REPORTER: Please state and spell your last name.

THE WITNESS: James Jackson, J-A-C-K-S-O-N. I am Jim Jackson, civil engineer with CDR Maguire. One of the things I was asked to review was traffic impacts and we went through the facility board and they gave us traffic impact study performed by the developer by a firm named

McMann Transportation Engineers.

They looked at the product. Two aspects to look at was during construction and then after construction during operations, what would the traffic be. The biggest impacts were during construction. You have trucks delivering and men working on the project.

So, looking at that, they looked at most of the materials would be coming in from Route 40, Route 100 that would be the main trucking route into the site.

The other men, they would be coming in that direction too. They could come from local townspeople, some could be coming from taking all routes.

But they did some modeling and they modeled the traffic impacts on signaled interactions in Pascoag and they did find some impacts during construction. There will be some delays, unavoidable, and there really wasn't anything that could be done to mitigate those delays in the Village of Pascoag. So there will be some delays during construction.

During operations the traffic will be negligible. There will be, I think, it is about 40 trips a day with employees back and forth and deliveries of some materials. The fuel oil that is being delivered and that is just general house kind of thing being delivered to the site.

CHAIRMAN PARTINGTON: It is a directional mike. If you hold it straight up, you have to hold it in towards you.

PROJECT MANAGER JACKSON: Is that better? So as I said, the impact during construction there will be some delays at the interaction signalized intersection. We agreed with the model that they did and agree with their what they concluded.

And it really isn't too much can be done with that and then during operations it seems like there will be no impact to traffic after construction is complete.

CHAIRMAN PARTINGTON: Did the traffic study take into account any possible degradation of the roads with all the heavy equipment going across or was that part of the study?

PROJECT MANAGER JACKSON: They did look at the analysis of roads on main trucking route Route 100 and 44 to get baseline information and those are state roads so they will have an agreement with RIDOT to make improvements if there is any damage from the increased truck traffic, unusual damage to the roadways.

CHAIRMAN PARTINGTON: Okay. Did the report say anything about anything about any oversized vehicles coming through? So, for instance, sometimes when they put in bridges they have more trucking and some very huge

pieces, do you know if there is anything contemplated in here where you have to have some rather large pieces running through the middle of Pascoag?

MR. JACKSON: In general the trucking traffic will be gravel and concrete trucks but there will be some large pieces of equipment delivered to the site and those will need special permits with RIDOT to get to the site. Okay. Thank you.

BOARD MEMBER PRESBREY: Mr. Jackson, during the review of the traffic study, was there anything looked into the account of emergency situations say during construction that a 15 yard concrete truck filled out its access on say Route 100 and in an area where there is no other access all of the way up through that roadway?

MR. JACKSON: They didn't really study any kind of situations happening. They do as part of the study, they do like an accident analysis. So what that does is it establishes what the accident rate is, before the construction and then kind of models what you can expect for accidents but that is more of a general -- what you are saying if one road is closed due to some kind of accident may not be related to construction where that traffic is going to go. That was not done and that is generally not done in a traffic impact study.

BOARD MEMBER PRESBREY: Thank you, generally that

route is a one way route. It has no other access ways around in a situation like that. Thank you very much.

BOARD MEMBER PICK: One quick question, are you required to inform the abutting municipality, for example, Foster or Smithfield where these trucks will probably be originating.

MR. JACKSON: It will go to RIDOT so RIDOT kind of controls state routes, Route 100 and 44 so they will go through RIDOT and I guess if they wanted to do any coordination withe the local towns they would do that.

BOARD MEMBER PICK: This would go to municipalities?

MR. JACKSON: It would go to RIDOT not the municipalities.

SECRETARY FERRIERA: Mr. Jackson, I know it is in the traffic study, they did lay out on Route 1 and clean weather but they seem to have voided two of Church, the corners, primarily High Street and Church Street at the Lake Plaza, that area. I have a boat and I have trouble getting through there with my truck and trailer and I'm looking at 18 wheelers going there not just for the delivery but there is going to be regular delivery coming up to the plant during operation and my concern primarily is at that formation of High Street and Church Street, especially in the wintertime when Invenergy predicted they would be running on diesel they would be using

diesel at that point in the wintertime that section gets tightened up really quickly, I didn't see any mention of improving the sight distance or travel distance. Other thing that I noticed on that part of Route 100, there is very little 18 wheeler traffic on that road right now so there is no test model to go by. Was there any brought up to further study that you are aware of?

MR. JACKSON: Not that I know of. They will have to get some permitting through RIDOT and RIDOT can ask them to do some further analysis as far as truck turning and portal turning programs that you can run to make sure there is clearance for the trucks.

SECRETARY FERRIERA: Thank you, sir.

BOARD MEMBER WOODS: During the construction process will they need like overweight, oversized truck permits or flag cars or special permits from RIDOT.

MR. JACKSON: All of the trucking will have to conform to the RIDOT regulations now so if they are oversized overweight --

BOARD MEMBER WOODS: Do you know what those regulations are? Is it something that you have looked at.

MR. JACKSON: They look at that in the report but the trucking companies would be responsible for that to see if there are any oversized loads they would have to

get permits.

BOARD MEMBER WOODS: So trucks coming down Route 100 Main Street Pascoag, are you familiar with that information?

MR. JACKSON: Yes.

BOARD MEMBER WOODS: Trucks that are oversized, will it have to do anything different? Open up that intersection? Will roads have to be paved or widened, you know? I mean Church Street is a narrow road. When you have an oversized vehicle coming down the road that could be a problem in the wintertime.

MR. JACKSON: Right now I don't believe they know the size of the equipment that they would be shipping in oversized loads, a project of this magnitude there will be some oversized loads.

BOARD MEMBER WOODS: You have don't have any studies, right? Basically you don't know the answers to most of these questions?

MR. JACKSON: To that question, no, I don't.

SECRETARY FERRIERA: Hi, again. The roadway coming in to service the Invenergy site, would that be falling under the new guidelines construction because they would have to be seeing so much heavier traffic during operation? Would the new road be built to new standards or request new standards?

MR. JACKSON: You are saying the access road into the site? I mean they, it will be a private road that would never become town owned or state owned or maintained so they would design it to what standards they feel they need to adequately.

SECRETARY FERRIERA: Thank you.

CHAIRMAN PARTINGTON: Anyone else? Thank you very much. Do you want this mike by the way?

ATTORNEY NOONAN: No, thank you. Mr. Jackson just to be clear, the primary roads that will be servicing this site are state roads, correct?

MR. JACKSON: Yes, ma'am.

ATTORNEY NOONAN: Those are under the jurisdiction of Rhode Island Department of Transportation?

MR. JACKSON: Yes.

ATTORNEY NOONAN: In terms of permits that will be needed from the State, it is correct that as you indicated it is sort of larger equipment of vehicles would need permits and physical alteration permit would be needed for access from DOT?

MR. JACKSON: Physical alteration permit would be access to the site.

ATTORNEY NOONAN: Those are all state standards?

MR. JACKSON: Yes.

ATTORNEY NOONAN: I have nothing further.

CHAIRMAN PARTINGTON: We have one more question for you, sir.

BOARD MEMBER PRESBREY: During normal operations and construction the vehicles would all be traveling along a state highway. During emergency situations would they be able to maintain down that state highway? If there was a shut down on the main highway, for instance Church Street in the middle of construction phases, where they would not be able to maintain staying on the State highway?

MR. JACKSON: I mean I would assume if the road was blocked and you had a concrete delivery coming they would seek alternate routes, that road was blocked and shutdown that would be a different situation.

BOARD MEMBER PRESBREY: But they would have traveled on town roads other than the state highway?

MR. JACKSON: Yes, I don't think they would stop and wait for the --

BOARD MEMBER PRESBREY: Thank you.

CHAIRMAN PARTINGTON: Thank you very much, sir.

ATTORNEY MCELROY: Mr. Chairman, next issue to be discussed is master plan review and Mr. Jackson is going to handle that as well.

MR. JACKSON: Yes. We reviewed the plan submitted with the Planing Board submission, very preliminary right now so there was not a lot of detail to review on them,

but a couple of items that we did look at was the storm drainage. They showed three detention ponds with the storm water with the site plan as developed. As the Planning Board you are familiar with you can increase its impervious area so you have to take measures to reduce the runoff from the site and then treat the runoff from the site. Those issues were not clearly resolved in this setup plan so it was just they made notice of it by showing a couple of retention ponds but there was no detail, no storm water report that you would normally expect that would show how much you are increasing the flow, how you can, you are taking care of the flow and that is something we recommend that you review thoroughly as it becomes available.

One other thing is impacts to wetlands and there are a few wetlands on site, one has major impacts to the access road coming into the site. Our wetland biologist recommends trying to avoid that. Try to use the access road that is already there to the gas compressor facilities. That brings up some other issues too by using that road. I don't think the gas compressor people want that used for that and it is not as good from a traffic impact. It is not as good as a location for that access.

Also, on site there is lay down areas that will have

some impacts to wetland. We are recommending that they look a little more closely at this and try to reduce the impacts to wetlands.

The project will have to go through wetland permit through Rhode Island DEM. That is where this will get ironed out. If there are limitations wetland mitigation will have to be done and that is identified in further design but DEM will be looking for avoidance of the wetlands. That will be a main thing and if there are avoidable impacts, mitigation. I think that pretty much covers that review.

BOARD MEMBER PRESBREY: Mr. Jackson, I would like to discuss these plans a little bit and your input. There is a seven sheet set very similar to the conceptual set of plans distributed to us a few months ago. Some of my comments about these plans I would like to begin with sheet number one or the boundary survey plan which is Sheet 15-105.

One, this plan certifies as being classical survey for land surveyor April 1st, 1994. This plan is not in compliance with 1994 requirements. You can't even read the plan. The plan is submitted to this Board in 2016.

The State of Rhode Island and the Board of registration for surveyors has new standards developed in the beginning of 2016 that these plans really need to

comply with. Same thing with second sheet certified as classroom survey does not meet the classroom surveys standards and it needs to comply with 2016 standards.

When these plans were submitted to us in conceptual phase there were a bunch of questions asked, some of them pertaining to the wetlands and there has been nothing addressed about them. There is one wetland retention area for storm water storage that is placed inside of an area that is surrounded by wetlands so what they are doing is they are essentially trying to say they can put a retention pond on the opposite side of the wetland. Do you think that is possible?

MR. JACKSON: No. As I said earlier the storm water is not really thought out on these plans. They will have to work on that and get a full storm water report and design.

BOARD MEMBER PRESBREY: That whole roadway going all the way to Long Lake Road there is no storm water down at the intersection so there is going to be runoff onto Long Lake Road which is not feasible. Would you agree with that?

MR. JACKSON: Yes, as part of that physical altercation with RIDOT they will make sure that there is no storm water being introduced into rooted way. They will have to take care of that onsite.

BOARD MEMBER PRESBREY: I think that lots of this could be solved if they were to again go to Algonquin people because Algonquin are not the only people that use it. There is cell power so there is some kinds of easement. I believe if they looked into it they could increase security of both properties if they use the same entrance, not a lot of wetland mitigation leads, so I really strongly believe that Invenergy should attempt to contact Algonquin again to see if they are kind of working in the same situation and they should be able to come to some kind of mutual agreement. That is just a suggestion that I have.

On the final sheet it talks about underground water resources and hydroid soil, no soil type shown just efficiency in the plans that should be addressed and I did hopefully, I'm not sure this Board is going to have the opportunity to address those plans any further.

THE AUDIENCE: Probably not.

BOARD MEMBER PRESBREY: So it is just kind of depressing to see all this information and not being able to follow through on it, have us required, have us be required to make a recommendation to Invenergy citing Board prior to having the information that we are used to receiving on this Board and seeing prior to making any recommendations.

THE AUDIENCE: Yeah.

BOARD MEMBER PRESBREY: That is all I have, Mr. Chairman.

CHAIRMAN PARTINGTON: Thank you.

SECRETARY FERRIERA: My colleague down at the end is being generous. He is calling it a master plan. At this stage speaking master plan I expect to see something hard. Something, no pun intended, concrete. It helps to ask a lot of our questions and it is not just being the Planning Board which we are, it is getting into the details of the plan seeing how things are going to happen. It tells us a lot about the company we have to deal with in Invenergy, which is we don't have a two way form of communication. I don't feel comfortable with this at all. I am adjust talking as a Planning Board member. We don't have anything to go by to even really discuss.

We have a conceptual idea of how the plan will be laid out, where this might be, where that may be. We have to rely on you guys for a lot of this and I'm sorry to dump this on you, too. I think if we had master plans to go by we would be able that much further to talk about what we see in front of us. And that I think what bothers me the most about this and when we refer to this as a master plan, I can't refer to it as a master plan.

I can't say a master stage because I don't see any plans. I can't call it that anymore. Sorry guys.

BOARD MEMBER WOODS: You know, ladies and gentlemen, you have a big task as well as we do as a Planning Board. You know you are trying to convey to us information that you are receiving. This meeting should have been held June 6th. My understanding because of lack of information or lack of responses that here we are today on the 20th with still not enough information.

We are on the fast track from what I understand, certainly not for my benefit and not for the benefit of the citizens of Burrillville but for the benefit of Invenergy. I would think they would be in a little more line to get the information for us. And I would suggest, Mr. McElroy, that the time that we have lost without having this information if it was possible to contact the citing board and ask them if we could have that time back. Okay. Ms. Elizabeth, do you have a question or do you want the microphone.

ATTORNEY NOONAN: Yes, one, please. Getting back to the issue on the storm water. That is a RIPTA permit that RIDOT oversees, correct?

MR. JACKSON: That's correct.

ATTORNEY NOONAN: Just so the Board knows, there is a storm water report that is being prepared and should be

done shortly. I might remind you, as discussions go on that this is a master plan. And traditionally the hard engineering comes after master plan. You have a tremendous amount information. There is only one, two areas where we don't have enough information.

We have the noise addressed preliminary plan that you chose to segregate from that engineering where that comes in my 25 years as a Planning Board and as a Planning Attorney. So I do think we have provided a great deal of information and as the questions come in and those of you that are familiar with EFSB process, we get data requested on Invenergy from our Town, from everyone, there is more information that master plan than any I have ever been involved in again in 25 years.

BOARD MEMBER WOODS: Getting is the trouble.

ATTORNEY NOONAN: So, it is out there. It is out there. Check the EFSB site. But Mr. Jackson --

CHAIRMAN PARTINGTON: I said -- ladies and gentlemen, let her speak, please.

ATTORNEY NOONAN: Mr. Jackson, again in terms of the wetlands, you indicated that this is also a DEM permit issue that needs to go through wetlands; is that correct?

MR. JACKSON: Yes, DEM will do that.

ATTORNEY NOONAN: I understand you expressed that normally you have more of this in your information in

your role as Planning Board because we do not come back until preliminary plan before the permits are in. You will not have an opportunity and that is the construct that we are under in the statute that is in place. I understand your frustration. I know that as boards, I sat between master and preliminary plan waiting for RIDEM and RIDOT and all those other agencies. We are giving you as much information as you will hear storm water and more on the wetlands as we go through it.

On the road issue, if I might have the opportunity to address that, you should have seen the letter where they have not given us permission, we have asked to use that road and shared that road and the owner of the property has denied that permission.

That being said, we would like access to the property and that is what we are proposing with the frontage and curb cut that is allowed by DOT. One moment. I have nothing further on the wetlands or the storm water.

CHAIRMAN PARTINGTON: Thank you. One of the issues is when we don't have things in place, although this is not an approval process as we have been told, but those are the things that we do rely upon so our normal processes are being -- we are not able to do what we would normally do. So we have been trained over several

years to look for certain things and that adds to some of our frustration, sir.

ATTORNEY MCELROY: Thank you, Mr. Chairman. One of the things that I would point out from a legal basis is the Board does have the option to inform Invenergy facility citing board in its advisory as to certain specific areas that it feels it doesn't have enough information to provide an opinion it can say that so that is a legal option available to the Board.

CHAIRMAN PARTINGTON: I appreciate that. But we usually like to have more deferential. We say not having it and simply siting it is something that we don't prefer. How is that?

ATTORNEY MCELROY: I understand. I wanted to let you know there is that legal option. Finally Town water sewer and MBTE issue and discussion will be done by Mr. Hevner.

MR. HEVNER: Okay. So, I had the plan to provide process water for the plan. The plan for providing process water to the plant as we understand it from reviewing the EFSB is that Well 3A in Pascoag is going to be reactivated and it is going to be treated prior to conveyance over to the plant. We use this processed water and then once the processed water is spent, it is going to be discharged to Burrillville Waste Water

Treatment Facility. That is an overview of the general proposed process.

One of the issues of concern is the whole nature of Well 3A in Pascoag. Well 3A was shutdown by Court order in 2001 due to underground storage tank release of petroleum. The concern that everybody talks about is methyl tertbutyl ether, MTBE, which is an additive in gasoline not used anymore but at that time it was. It was the other petroleum constituent is a concern in well water that includes what is commonly called B types, benzene, toluene, ethylene propylene as well as hydrocarbon ranges. So if this treatment occurring at the wellhead all of that, all of those petroleum constituents should be taken out of the water before it is conveyed over to the plant.

It would have to be used as processed water. The reactivation of the well has some other issues. The summer flows are projected to be in the vicinity of 225,000 gallons per day. Winter flows are actually higher about 925,000 gallons a day. Historical information that we have on Well 3A and it was pump tested in 2005 but it has been, it has been shutdown by Court order since 2001 is that it is hydraulically connected to Clear River so there is a concern about having information if it is well is reactivated how will

it effect the Clear River and how is it specifically going to effect the low stream flow which is seven to ten data information, which is seven days of flow during the last ten years under the worst low flow conditions.

It should be noted that during the operation of the remediation systems between 2001 to about 2013 that many of the discharges were conveyed over Burrillville water treatment facilities which is part of what the system is that is going to be proposed for this power plant development.

The treatment scheme that was in EFSB submittal for MBTE going over to waste water treatment facilities was proposed at 55 parts per billion and it will be 55 parts per billion going to the plant and then 200 parts per billion due to condensate issues from the plant going over to the waste water treatment facility.

THE AUDIENCE: What?

MR. HEVNER: It is expected that over a period of time, the reactivation of Well 3A will clean up the activa with the treatment and there is also a concern that we wanted to look at relative to the indoor contamination because the well has not been operated on a regular basis since 2001. So putting it back online to operate has a potential to draw back in contamination, you know, in the direction that is probably potentially

going to impact residences over a period of time. So those were the things, those were the issues we looked at related to this whole issue of reactivating Well 3A and the recommendations that we came up with related to the reactivation of Well 3A is that there is a concern for the Harrisville Water System.

Harrisville Water System is currently providing majority of the water to Pascoag Utility District and it should be demonstrated that well is a hydraulic connection to Harrisville Water System. The consultant for Pascoag Utility District, I have talked to him several times. He feels that the Clear River acts as a ground water barrier and low probability of hydraulic connection but in light of the significance of the reactivation of Well 3A, it should be demonstrated by the power plant design team but it is not an issue related to impacting the Harrisville Water System.

CHAIRMAN PARTINGTON: If I can interrupt what you are suggesting is Clear River bisects the two towns and that is what separates the two water systems.

MR. HEVNER: Right. Most cases it would be ground water boundary but in most cases not always.

CHAIRMAN PARTINGTON: So part of your request, if you will, is to, your recommendation to verify that fact.

MR. HEVNER: That would be by ground water modeling

by the design team.

CHAIRMAN PARTINGTON: Thank you.

MR. HEVNER: There should be a pump test to evaluate the conditions of the water and indoor air because of the nature of indoor air and dissolved petroleum contamination which has been in the air for a long period of time at this point to draw that in during short term pump test, two days, five days, it might even be 30 days, might not be enough to draw that back in. It might have to be modeled to understand what potential conditions are related residual petroleum contamination out in the atmosphere being drawn back in during pumping conditions.

Because there is a potential there, the model needs to be evaluated and as they actually got into production pumping at Well 3A they would need contingency, a range the air impacts for residential property, the GAC treatment system that is we have not seen it designed at this point, Granule Activating Carbon, which is a typical absorption that is used for petroleum in ground water. The information that we were able to receive in the air facility document was two GAC vessels. We think that we are proposing that there should be more redundancy built into that system. There should be dual trans system one to operate and one goes down they can switch down to the other one and it should be considered that three GAC be

included as opposed to two GAC but that will be determined as they get into the design process. They should demonstrate that there is going to be no impact to low stream area for Clear River because that is a concern you don't want to adversely impact the river during low flow conditions.

It should also be considered that a portion or majority of spent process water be discharged to Clear River as opposed to going to waste water treatment facility.

And, also, because Well 3A is considered the primary source for the process water, the proposed plant them should be contingency arrangements for additional water sources especially in the case of mechanical failure at the well because its a plant and it is going to still need to be able to operate.

And, because the treatment at the proposed treatment at Well 3A is going to be happening at the actual well source, having a building size information on what the building would be at that location would be helpful. Those were the recommendations that we came up with.

CHAIRMAN PARTINGTON: Thank you. If you are going to do a map on a napkin, how long would it take to do a water test to figure out all of the things that you would like to find out? How long would that water test

continue? How many days, weeks, or months or what have you to test the ability of it to recharge the river?

MR. HEVNER: In 2005 URI in conjunction I think conducted a 37 day water pump test. And even at 37 days it was still expanding. The hydraulic cone of influence was still expanding so they had not completely met stabilization at that point. They were pumping at 250 gallons. The capacity of that well is at least 600 if not higher.

CHAIRMAN PARTINGTON: 250 gallons a minute.

MR. HEVNER: Right, but the capacity of the well is 600 if not higher so that --

CHAIRMAN PARTINGTON: But you are talking.

MR. HEVNER: Running a pump test is one issue related to the flow of the water capability of the well. You can run chemistry off that but you are not truly going to know what the vapor indoor air impacts are without running it for three or four months which would be under actual conditions. That is something that will have to be modeled because you cannot pull a well dissolved estimation out in the atmosphere and back in.

CHAIRMAN PARTINGTON: You are talking about 900,000 gallons a day.

MR. HEVNER: During the winter months because of the process water demands of the plant as presented in the

EFSB application.

CHAIRMAN PARTINGTON: So you have to pump a significant amount in order too see if everything works.

MR. HEVNER: That is one of the lines of evidence for succession that maybe more than one source is needed for the process water.

CHAIRMAN PARTINGTON: Do you know if anyone or anything has been done on that front, if they have identified any other sources?

MR. HEVNER: Sure. There are possibilities. There is interconnections with other municipalities, they will have to broker deals. I'm not sure how much water you get out at Wallum Lake Road. There are other contingencies to be had which would be part of their due diligence to provide redundancy on the processed water.

CHAIRMAN PARTINGTON: Okay. Thank you.

BOARD MEMBER PRESBREY: You stated that the concentrate is going to be 200 parts per billion being pumped into the town sewer system of contaminates?

CHAIRMAN PARTINGTON: That was presented in the EFSB application. One of the things that I neglected to point out during the treatment part of what I was proposing with the dual train and three GAC units on each train, is that it should be able to be treated no none detect having 55 come out wellhead and going over to plant 200

going over Burrillville treatment. You don't have enough carbon online. I don't know that the basis of that 55 and 200 was, but it is an industry standard that you can treat petroleum constituents to non detect at the right duration which is vessel sizes and also right amount of carbon online.

BOARD MEMBER PRESBREY: So they are not proposing to transfer 200 parts of per billion of the contaminate MBTE into the town sewer system?

MR. HEVNER: No. We are reviewing documents. We are not proposing the documents, but we are proposing that it be treated to non detect which on a standard 82/60 or 524 analysis of EPA that would be half a part per billion.

BOARD MEMBER PRESBREY: Can we talk about ground water modeling? It is not an exact design, is it?

MR. HEVNER: Ground water modeling is not an exact science.

BOARD MEMBER PRESBREY: There is no guarantees from drawing from Well 3A, whichever well it is that it is not going, nobody can guarantees that it will not effect Harrisville Water Supply? Good possibility but nobody can guarantee it.

MR. HEVNER: So the sequence of Well 3A was taken off line on 2001 and Harrisville was brought online

thereafter so both of those well systems have never operated at the same time to my knowledge at this point. So that is where the request is that there should be a demonstration that there is no significant issues related to reactivating 3A relative to Harrisville Water District.

BOARD MEMBER PRESBREY: Because they are drawing from different aquifers the effect -- Harrisville is not drawing from same aquifer, from the same well as 3A.

MR. HEVNER: There is implied ground water divide by the Clear River between the two aquifers.

BOARD MEMBER PRESBREY: There is no guarantees.

MR. HEVNER: Well, they have to be pump tested and should be modeled also. Ground water modeling is the best option and best tools available but to say it is perfect, I can't say it is perfect I'm also not a ground water modeler.

BOARD MEMBER PRESBREY: There is no guarantee that Harrisville Water Supply will not be effected?

THE AUDIENCE: Yes or no.

MR. HEVNER: The information to date is that there is not going to be impacts based on what water consultants for Pascoag Utility District say.

CHAIRMAN PARTINGTON: Ladies and gentlemen, sometimes there is not a yes or no answer number one and

number two the gentleman is answering to the best of his professional abilities. That is why we hired him. So please let him speak.

BOARD MEMBER PRESBREY: I'm all set.

BOARD MEMBER PICK: Just getting back to the capacity 920,000 gallons per day which is around 642 gallons per minute, what happens three days looks like it is only probably putting out 600 gallons per minute which is of course a deficiency of 42 gallons you say that is possible but which you don't know; is there a test that will be run to determine its capacity?

MR. HEVNER: Right. We are reviewing documents that were provided to EFSB so they have these numbers of process water demands. We are looking at the information that we have relative to the well. Based on that, we are recommending that the conditions be evaluated with a pump test and if it is not sufficient and they need alternative or supplemental water sources for process water and they probably need that anyways because you need redundancy, you never just rely on one source in case of mechanical failure.

BOARD MEMBER PICK: Is it typical alternative water sources are continually tested?

MR. HEVNER: They would be tested upon evaluation and based on the water quality and needs of the plant

there would be treatment that would be used, so.

BOARD MEMBER PICK: The proposal is two GAC. But your recommendation is three.

MR. HEVNER: Right two trains, three GAC's. That might be a boiler plate recommendation that they put out there, there are systems that run on two. It becomes an issue with the size because you are going to have a certain flow that is going through the vessels and you have contact time and right duration between the vessels.

BOARD MEMBER PICK: I just want to be clear, is the water after it has been exposed to the GAC that is when it is at a non detect level?

MR. HEVNER: Because you have three GACs you have a significant knock down first GAC and second vessel will be polished, as well as a third vessel if you have failure GAC you will have failure in the vessel, that vessel that will fail. You have mid point sample, two mid points and effluent and testing those on a regular basis and projections on the carbon breakthrough analysis that you knew already what the duration of carbon would last relative to what the chemical road would be.

BOARD MEMBER PICK: What is the regular basis? Twice weekly, twice a week?

MR. HEVNER: Usually start up is almost daily until you fine tune the system. It could be biweekly, twice a

week but that will also be subject to the what the power plant team proposes. I think they are proposing, I'm not sure what the -- who will operate the system whether it is the power plant or utility district.

SECRETARY FERRIERA: I started asking this question before. Maybe you or somebody could answer it. I read in the report there is a potential for vapor intrusion when the well is running at full capacity but no plans for Invenergy to run a test for this. There is a decision based on a test done ten years ago. Do you maintain a vapor intrusion test would not be necessary?

MR. HEVNER: I feel it is warranted as part the evaluation pumping conditions even during a 30 days is probably not going to be enough to draw back in contamination to create a vapor intrusion. You have to create the pathway. You have drawing that dissolved contamination but that is, it is out there. It is belts and suspenders. You don't want impacts indoor, so if there was dissolved contamination, you are drawing it back, it would volatilize off the water table into the soil, gas, space, and then migration pathway through the utility stage, gets in the foundation, things like that. That is where it could get in that could take three to even six months to establish that pathway to and the migration of indoor air evaporated. That is what

happened in 2001 essentially.

MR. HEVNER: That is correct. That is correct.

CHAIRMAN PARTINGTON: Can a well degrade its production over time? Can it not put out as much as it once did?

MR. HEVNER: You are going to put a riser pipe in the well. You have a screen where zone of the highest production was identified during the exploration process. So it is typically a stainless steel screen and you have build up and scale, and that is where you are going to lose your production in the well so to get 3A back online and this is just general industry practice, but you would have to redevelop the well and you would also that would include getting the scale inside because the well has been inactive since 2005.

CHAIRMAN PARTINGTON: The aquifer that is it is drawing from, will that over time degrade or no?

MR. HEVNER: In most cases, no.

SECRETARY FERRIERA: You had me scared. 55 gpd turning into 200 gpd.

MR. HEVNER: Right.

SECRETARY FERRIERA: The depth of 3A 65 and-a-half feet, that is it?

MR. HEVNER: That is right. Fair drawing all its water from Clear River but under certain conditions will

draw the river to be from Clear River that has been historically demonstrated.

SECRETARY FERRIERA: First off it tracks the extent of the flume. Do they do test holes being it is only 65 feet deep to track the MBTE flume to see where it is expanded up to?

MR. HEVNER: When they conducted those wells in Pascoag, they could put transducers in the well. They would be able to get chemical analysis on what the conditions were in the vicinity and also be able to get all the die dot information from the well is north so I think it is generally a southern flow so if you start stressing the aquifer by pumping the well, you will be drawing it in the direction of the well. That creates a cone of influence towards that well and that potential for things to migrate to happen in subsurface.

SECRETARY FERRIERA: This would be a primarily cooling system for them, would it be possible to go through some kind of injection system to reintroduce the cleaned up water into the vicinity of the well?

MR. HEVNER: That is large forming flow so that would be something that the power plant design team would be looking at.

SECRETARY FERRIERA: It is not impossible but not finally doable.

MR. HEVNER: It is not impossible but you have to look at the chemistry of the water after it is spent process water. There could be issues about different components completely unrelated to petroleum.

SECRETARY FERRIERA: Talking about activated carbon stats we had at the plant two stats made up of two containers so the second first set showed improper cleaning to switch over automatically to the second and this worked out pretty descent. But --

MR. HEVNER: It is a tried and true technology to granulize activated carbon, granulated active carbon company you have a contract arrangement and they will show up the next day to change out these carbon canisters. If had you three online and taking the first one off line and using second or third as primary now, change out the first one, pull the carbon and put the carbon back in and then it actually become two, three, and then one in the scheme because you don't want to waste the carbon in the first one that you just put it on because you have already got exhaustion in vessels two and three.

SECRETARY FERRIERA: We also found they are recycling the carbon by cooking off the impurity. It is weird stuff. It cleaned up everything nicely.

MR. HEVNER: There are several different versions of

carbon, in this case recycled carbon is probably fine in the situation of drinking water you would, virgin carbon, you would not use recycled carbon for drinking water.

SECRETARY FERRIERA: During the last meeting they were speaking about doing a secondary filter system at the plant location itself to make sure everything went through and make sure it was even cleaner. I have not heard anything about what they are proposing at the PPB going back to --

MR. HEVNER: PPB of what chemical?

SECRETARY FERRIERA: MBTE.

MR. HEVNER: There is no reason why they can't have it online to have a carbon treatment system. If you have enough carbon online the water is being pumped out the well going through the carbon there should non detection because you have enough carbon online. So going over to the plant there should not be petroleum constituent whatever they are streaming relative to discharge of the plant. That would be under waste water guidance. Not that would not be me.

SECRETARY FERRIERA: Thank you.

BOARD MEMBER WOODS: As you can tell the well issue is a very important issue. In your opinion, Tom, when you have carbon filters in place, what PPB coming out the carbon filters to the plant I think I read something that

said it will be 55?

MR. HEVNER: The Invenergy application to EFSB had 55 following treatment at the wellhead and then 200 going to the plant. What I'm saying is that might have been preliminary for boiler plate. It is possible to treat non detect so from a PPB standpoint using MTBE is .5 PPB's --

BOARD MEMBER WOODS: Right.

MR. HEVNER: 0.5 five parts per billion non detect so less than 0.5 parts per billion, non detect.

BOARD MEMBER WOODS: What about other contaminates? Do carbon filters clean them as well?

MR. HEVNER: Yes.

BOARD MEMBER WOODS: So one filter system for all?

MR. HEVNER: Except iron and magnesium.

BOARD MEMBER WOODS: What is the solution for that?

MR. HEVNER: You would have to do have a contact tank to reduce those concentrations with a chemical additive but that would be determined, that would be determined as part of a feasible study.

BOARD MEMBER WOODS: Help me. From what I understand 55 comes out the valve and 200 goes out. I would like to have machine do that with money. I don't understand that if you can explain it.

MR. HEVNER: If you have carbon online it should be

less 0.5.

BOARD MEMBER WOODS: In your application it is 55 parts per billion coming out of the well and 200 parts per billion going into the sewer.

MR. HEVNER: It -- the concentrate --

BOARD MEMBER WOODS: Is it vaporization.

MR. HEVNER: It is concentration is based on a process.

BOARD MEMBER WOODS: Would the sewer have waste permit to have 200 parts approximately.

MR. HEVNER: Generally McGuire was looking at waste water treatment relative, if I can pass it over to Jim?

MR. JACKSON: We looked at the sewer impacts to clarify a little bit the original application said they were going to treat 55 parts per billion at the well and send it to the power plant.

The power plant is going to be purely treated not though chemical contaminates but more minimal that are not marketed to drinking water but they are to treatment. It is treatment to remove the MBTE and containments in the gasoline at the well site and that water to goes treatment plant and there is further treatment there to treat the process water to remove the minerals and impurities, not contaminates.

BOARD MEMBER WOODS: Reverse osmosis.

MR. JACKSON: Yes, and that process, that is where the MTBE's were being concentrated in what was going to the sewer treatment plan.

BOARD MEMBER WOODS: That reverse osmosis has nothing to do with the MTBE or other pollutants into the gas?

MR. JACKSON: But the process coming off that was where the contaminated got high.

BOARD MEMBER WOODS: Does the sewer need a hazardous permit and can they deal with high concentration of MTBE.

MR. JACKSON: To answer that question, they don't treat MTBE in sewer treatment plan. So we looked into it, 200 parts per billion in the original application and looking at that we recommended that they should get it down to 20 to 40 parts per billion. That is what we recommended in our analysis and we also recommended that they establish a discharge permit with Burrillville Sewer Commission to control what contaminants can go in that water that go to the treatment plan.

Right now there is a plan, not regular on MTBE and state has not regulated them on that but in the future that could be something if they add to the list that they have to watch on the discharge and we recommended based on what our research getting it down to 20 to 40 parts per billion and as Tom recommended or Invenergy in their

data request has stated they are going to treat that water to non detect.

If they do that, there is 200 parts per billion coming out of the plant they will not know what it would be but in the single digits after.

BOARD MEMBER WOODS: It would be drinking water coming out non detect.

MR. JACKSON: I wouldn't drink it but would -- it would be to treatment plan.

BOARD MEMBER WOODS: One of the major concerns for Pascoag Utility is remediation. At what point would that well be remediated that it would be part of water used for servicing the water supply?

MR. JACKSON: I don't think anyone has made an estimate on how long that would take, depends on how much water they pull out, how much they pull out an how many contaminants. It is really an unknown right now.

BOARD MEMBER WOODS: I know somewhere along these meetings it was brought up Santa Monica California had a similar contamination and it was very important that they mediate that well and there have had no choice except to do that. It costs millions of dollars, 60 something million dollars to remediate that well and took 14 years but the key was not to pull the water out of the well but start pulling the water out of where the contamination

was away from the well. That was the whole key that helped clean that well up. So it is going to be a very costly affair and take a look at time to remediate the well and I don't know if there is any data out there for that process but that is the concern of Pascoag Utility District to clean that out.

Next question was the Court order that closed the well and what does that take or has anybody looked into how that well is going to be opened to even monitor it.

MR. HEVNER: That is the responsibility for the design team of the power plant.

BOARD MEMBER WOODS: Have they submitted anything in how they would attempt to do that?

MR. HEVNER: I understand there has been meetings with DOH and DEM. I have not been a part of these meeting.

BOARD MEMBER WOODS: Thank you very much. You did a wonderful job.

SECRETARY FERRIERA: One more, we recommended looking at the two different uses for the water, one to make steam and one to go through the coolers or just everything going through reverse osmosis filter system as well.

MR. HEVNER: Could you say that question again?

SECRETARY FERRIERA: When water comes in from the

well, is it going entirely through reverse osmosis filtration process or is it going to be like broken down part makes steam and other parts goes to chiller?

MR. HEVNER: I think that there are four uses for the process water of the plants but I'm drawing a blank on what the four uses were present in the EFSB page. I think a majority is it probably is cooling the water.

SECRETARY FERRIERA: They would not be sending cooling water through reverse osmosis system, would they?

MR. HEVNER: I'm not sure.

BOARD MEMBER WOODS: Of those four categories, I had a question on it, says that part of that water is going to be used for housecleaning. So immediately I'm thinking about moping floors. I do that once a week. Housecleaning could also mean washing down the turbines, I know that when most engines when you are cooling them even in your own car the radiators builds up stuff in it and really the reverse osmosis is used to get all of those impurities out so they have pure water to go onto the turbines. Does that house cleaning water clean smoke stacks for the turbines or anything of that nature if you know that? No.

MR. HEVNER: I'm not sure. I'm not sure. I just remembered that I have the EFSB application with me and I was just curious what the four uses were. I know there

are four uses but I don't remember them off the top of my head. I do not want to look that up now.

BOARD MEMBER WOODS: It just said house cleaning. I don't know if the terminology was using something different than a residential use type of thing.

MR. HEVNER: I can follow-up with that.

TOWN PLANNER KRAVITZ: If you don't mind. The one thing that I didn't hear is that tech consultant for Harrisville Water did weigh with a letter for us June 9 and they recommend that the Board set aside a budget so they can run their model test. I think that is very important so I'm bringing it up early for the applicants benefit at this time, that Beth is aware that was the request. It is up to you what you do so.

ATTORNEY NOONAN: Thank you. Mr. Hevner.

MR. HEVNER: Yes.

ATTORNEY NOONAN: On the recommendation that you made regarding the I guess the well water treatment, you reviewed the data request that Invenergy had responded to, correct?

MR. HEVNER: I think there were several.

ATTORNEY NOONAN: There were several and do you agree that Invenergy has agreed to get the water down to less than 0.5?

MR. HEVNER: Yes.

ATTORNEY NOONAN: And they have agreed to do pump test and samples?

MR. HEVNER: Yes.

ATTORNEY NOONAN: And, so this Board and you guys know that there are numbers on hydraulic study being done which would be helpful in your analysis, would it not?

MR. HEVNER: Yes.

ATTORNEY NOONAN: And, I believe that there was a screen flow analysis prepared and I'm not sure if you had an opportunity to review that?

MR. HEVNER: I have not.

ATTORNEY NOONAN: We can make that available for review on that that stream flow so that you talked about it earlier.

MR. HEVNER: Seven to ten information, yes.

ATTORNEY NOONAN: In terms of permits we talked about Pascoag Utility District and Pascoag we talked about some of the other districts but Pascoag would have jurisdiction over this, correct?

MR. HEVNER: DEM and Pascoag.

ATTORNEY NOONAN: I was going to say DEM second but Pascoag first. And what roles are you aware that DEM would have in this.

MR. HEVNER: I think DEM is going to be looking a stream flow issues.

ATTORNEY NOONAN: Additionally this whole issue of cleaning up Well 3A and doing remediation, that is almost a continuation of what was started back in the 2000s, correct?

MR. HEVNER: Correct.

ATTORNEY NOONAN: Is it fair to say that Invenergy is stepping into the shoes of someone to do site remediation where no one stepped forward to do that at this point? Let me change the question. Is there any remediation on Well 3A presently.

MR. HEVNER: No, there has been no remediation since 2013. That's correct.

ATTORNEY NOONAN: All right. And so in terms of whatever is done in remediation it would really be under jurisdiction also of DEM and hazardous materials division, correct?

MR. HEVNER: That would be the US Steam Group, correct.

ATTORNEY NOONAN: Are you familiar with the Santa Monica issue that Mr. Woods raised?

MR. HEVNER: No.

ATTORNEY NOONAN: Let's be clear on this. What we are talking about is treatment for the facility and not the drinking water, correct?

MR. HEVNER: That's correct.

ATTORNEY NOONAN: What he referred to dealt with drinking water so it is different but in no instance is any material submitted proposed that water of Well 3A be used for drinking water, correct?

MR. HEVNER: That's correct.

ATTORNEY NOONAN: Thank you.

BOARD MEMBER WOODS: If I can respond to that. I prefaced the whole conversation about Santa Monica the goal of the citizens of Burrillville is about remediation. When I talked about Santa Monica it was about remediation than the power plant water use. So if our goal is to allow you use the water for remediation for our benefit it takes a very lengthy time. Thank you.

CHAIRMAN PARTINGTON: Mr. McElroy, that concludes the presentation by the Town's witnesses. This might be a good time to take a break and give the court reporter a break. Five minute recess. I need a motion.

SECRETARY FERRIERA: I will make a motion for a ten minute break.

BOARD MEMBER DESJARDINS: Second.

CHAIRMAN PARTINGTON: Any discussion? All in favor.

(MOTION PASSED)

CHAIRMAN PARTINGTON: Any opposed? We will reconvene in ten minutes, which will be 8:50.

(RECESS)

CHAIRMAN PARTINGTON: Okay. Here Invenergy has two experts.

ATTORNEY NOONAN: We have a whole bunch but start with noise is first.

THE COURT: Hopefully after that we will be taking comments from the public and we do have looks like 30 people have signed up. So, what we are going to ask is, if someone goes ahead of you and says the same thing that you were going to, if you could pass when that comes up. Okay. We don't want to skip anyone but we want to remain within the time limits that we can.

ATTORNEY NOONAN: Thank you, Mr. Chairman. If I might. I do have several witnesses. I will be presenting, as the Town did, also in terms of the noise, the master plan comments, traffic, water issue. I don't expect that we will get through that with one hour today so I don't want to raise the expectation and my understanding is public comment would follow the conclusion of my witnesses?

THE COURT: That's correct.

ATTORNEY NOONAN: First witness is going to address the noise issue, if we could swear in the witness please.

MICHAEL HANKARD,

called as a witness, being duly sworn, testified as follows:

THE COURT REPORTER: State your name and spell your last name for the record.

THE WITNESS: Michael Hankard, H-A-N-K-A-R-D.

ATTORNEY NOONAN: Thank you, we have provided resumes of our experts to the Board. I will ask for professional qualifications briefly.

MR. HANKARD: I will try to be brief. I know it is getting late. I have a degree in electrical engineering and for the last 26 and-a-half years I have been working on noise on industrial facilities major power plants.

I have own my firm. We are an independent firm and we remain so. We don't work for Invenergy. I'm not an employee thereof. I'm a private consultant and I do consultant work for other firms as well. It is my reputation that is most important to me, not necessarily my direct relationship with Invenergy.

MS. NOONAN: Just to discuss, you have been involved with power plants that combined plants similar to the one proposed here.

MR. HANKARD: One of my first projects and all through the years analyzing and combined power plants.

ATTORNEY NOONAN: Then, I think if you can, discuss generally the reports that you have compared and sort of jump into the meatier things as Mr. Hessler discussed them.

MR. HANKARD: There is essentially three documents or sets of documents prepared on the basis of noise. I go after the first one which was baseline noise study that went in the EFSB application order transient report which dealt with startup noise and then there were the responses to the Town's data request that dealt primarily with transient noise as well.

ATTORNEY NOONAN: Are you also as part of your undertaking able to testify here, did you make yourself familiar with the Town's noise ordinance?

MR. HANKARD: Yes, absolutely. And that is where it all starts, the regulatory piece and so, yes, I'm fully familiar with that ordinance and I may add with the site as well I spent three or four days in the site area in the middle of the night with noise. I understand the rural character of the area firsthand.

ATTORNEY NOONAN: One the questions that came directly from the Planning Department was how Invenergy planned on achieving the Town's ordinance level 43 dBA. Can you address that question also in the request context of Mr. Hessler's comments?

MR. HANKARD: Okay. We have built a model of that facility. It has been built with great care and using the best data that we have available to us. And, we start with kind of a regular plant if we didn't have to

meet any noise level what would we do. And we predict the levels of residents around this facility and then we say okay we need to add noise reducing measures. So let me list off quickly what would, what noise production measures are currently designed into this facilities.

First of all, all of the combustion and steam turbines are inside a building. That is not always the case but they are going to be inside a building. Those buildings will be acoustically treated every and every vent what is called a acoustic treatment, not just an opening in the side of the building. There are high performance silencers on the intake air for the combustion turbine that must be done and is done on this project.

The turbine compartments have fans to bring in air. Those are silencers, air cooler condenser provides cooling for the whole plant is going to utilize a low noise design. It is an off the shelf design. The combustion exhaust fuser right after the combustion turbine, there is a piece of duct, duct work that can be loud, those will be barriers. We have low noise transformers, not run of the mill transformers but low noise transformers.

The boilers act as a muffler to the combustion turbine but we are going to add silencers in addition to

that.

Then you have a number of they call skids, you might have a skid of a small block of equipment dedicated to reboot coolers or the gas compressors, boiler feed water pump on these pieces of equipment are used in this case every single one of these have a building around it and each one is acoustically treated. So, with that, that was the list of mitigation that went into quieting the plant from a base load operation. Then along comes the transient which is start up issue which David Hessler spoke. And we are equally concerned about this and we have spent a great deal of time modeling this, discussing it with prospective vendors, what kind of quiet equipment can they provide and we have made it extremely clear to them that this is an issue. It is an issue for the Town, issue for Invenergy, issue for me, for Mr. Hessler, everybody is on the same page with this. Everybody understands that they are going to meet this. So to you to that end at the moment what we have recommended for treatment is an affidavit mentioned is low noise valves and we have not only asked them for low noise valves but also for the lowest noise valve that they know how to make. So, again, we are impressing upon them the seriousness of this. That includes a spark engineer piece of equipment where the steam gets dumped into this

duct that overwhelming this designs and there was mention by David of the vent the drain tank vent we have added additional silencing on that so we have addressed that issue already.

So, that was all done and then the Town asked further questions about meeting the 43 under startup because our transcend report said we could get it down to 46 and you all came back, perhaps with Mr. Hessler helping you out, and said why don't you meet 43. So, that what is now we are committed to. So we have further added lagging to the duct, I know this is something that David might not have known about it, but we are wrapping the large duct which is the heavy material that Mr. Hessler recommended. We at the moment have not decided to enclose it in the building but that, that can get worked on in the final design that right now we are going with language and we have also increased in the noise when you build a building and say well how much does it soundproof, it is a rating called STC and we had specified the building at STC 30 and we bumped it to STC 35 so we have really thrown the book at this problem for lack of a better term, left no stone unturned, not a single piece of equipment has not received scrutiny and in most cases noise makers.

ATTORNEY NOONAN: As you -- strike that. Were you

present while Mr. Hessler testified this evening?

MR. HANKARD: Yes.

ATTORNEY NOONAN: Can you address the three categories that he addressed the noise issue in?

MR. HANKARD: Right. So the noise category was limit of 43. I will echo his comments and I have recently spent time out in the field listening to and measuring power plants and it becomes fairly difficult when the levels get below 40, it becomes fairly difficult to separate the natural sounds from the plant. And I'm working in rural areas I realize the site is rural, so I'm not talking about a suburban or city environmental, I'm talking about rural environment so I echo the fact that the 43 dBA is low and protective limit for Burrillville.

Next we mention the octave band limits and how the project asked for a waiver from them and that is true but I would like to add that the industry standard limit for low frequent noise and that is, I hate to throw more terminology and numbers at you, but it is 75 dBA and that is in Mr. Hessler's report and many of our analysis as well we are currently predicting the levels to be 62 dBA so we are, if my math is good enough, 13 dBA below the limit so, so, yes, we are asking for variance but that doesn't mean we are going ahead and doing anything we

want.

We are meeting this other industry limit and in fact we are far surpassing it so I agree that I do not think that low frequencies or octave bands are necessary.

Lastly, the start up issue I also touched upon, we have given this a great amount of analysis and thought. We are telling our prospective vendors or Invenergy prospective vendors this is very serious and they are going to have to meet, there is going to be a test. This is not something that gets put in a report and it is what it is.

No, we are going to have to meet it and if they don't meet it they will have to fix it until they do it. So I'm trying to impress upon you, I take this very seriously and Invenergy takes it very seriously and we will make the subsequent contractor take it very seriously.

ATTORNEY NOONAN: Can you address the issue of going forward how Invenergy would ensure that these noise limits were met?

MR. HANKARD: Where we are today is step one, if you will. Maybe it is step two, but the ball doesn't get dropped here. So, Invenergy's next step would be contract with EPC contractor. Again, the contract is going to be written with the very specific language and

specific noise limits. Every piece of equipment will have to confirm to mitigation that we outline and that contractual obligation on their part there is going to be compliance test we are going to go out and measure the noise and prove that it is what we said it was going to be.

If there are any problems found they will be fixed. They will have to be. That is the way the process works. My firm regularly goes out and does compliance measures while David has never measured an EFSB the manufacturer guarantee we found in general plants are under the design. We do not go out and regularly find they are over limit. We go out and find out that they are regularly under the limit perhaps not with regard to the GAC bypass noise but the plants in general meet their limits because these guys take it very seriously.

ATTORNEY NOONAN: Discussing the GAC and you indicated that there is lagging that will be put in place. Maybe you can describe what lagging is but Mr. Hessler also made a recommendation that the entire unit be enclosed. Can you indicate whether that has been considered or contemplated going forward?

MR. HANKARD: To explain lagging we have lagging duct, this large steam duct, you wrap it with installation mineral rule or some sort of installation

blanket and wrapping that with loaded vine or some sort of mass element and it is that combination of and mass that reduces the noise from the duct itself. And, if additional mitigation were to be needed we do not think right now our estimation if the vendor meets their guarantee, if everything works as we truly believe it will, it will meet the limit, if not you have to get into a building or barrier of some sort.

ATTORNEY NOONAN: Can the plan be designed at this stage such that if that eventually came about that 43 was not being met and needed that subsequently could be added if necessary?

MR. HANKARD: You do have to be careful about that because noise mitigation retro fitting coming back after and trying to fix can be problematic for an engineer going to ensure there is enough room and physical capability of building a wall or building if need be.

ATTORNEY NOONAN: I think I interrupted your discussion of going forward how to make sure the thing is sustained in line, if you would like to finish.

MR. HANKARD: Well, during when the contractors is still on sight initially fire the plant up, do measurements if any initialing problems they get fixed and then I would assume and it would be my recommendation it would be some sort of complaint resolution process in

place going into in perpetuity, the plant gets investigated and legitimate problems get fixed by the owner and that is in perpetuity.

MS. NOONAN: Mr. Hankard, based on your experience in the field of controls in engineering to a reasonable degree of certainty, do you have an opinion as to whether CREC can achieve the decimal levels in noise as specifically 43 dBA?

MR. HANKARD: Yes, I do believe we will meet 43 dBA under all conditions and I have four reasons why. First of all, the model that we constructed, again, this is no back of an envelope affair. This is a very complex model. It is based on 20 something years of building these models, having need back to make sure it is accurate.

Secondly, the model, okay, we have got so much noise coming out of the plant, how does that promulgate two or three or four feet to the residential model, assume that the model blowing from the plant to the residents, it is nighttime, perhaps a temperature inversion set up where these are good conditions for sounds proposition, so under, that is what we predict when we say 43 along Lake Road or School House Road. That would be under those conditions only when the wind is blowing towards those areas and temperature aversion exists under all other

levels, it will be lower and that includes most of the daytime.

You know, thirdly, as I listed out, this is a very significant amount of mitigation, we -- we have no piece of equipment virtually untouched. Silencers are on all enclosures, around all of, so it is a significant effort.

So finally again the ball doesn't get dropped there. It is a process to bring it where we are, through final design through construction and to operation.

ATTORNEY NOONAN: Thank you, Mr. Hankard. I have no further questions for you at this time.

CHAIRMAN PARTINGTON: Mr. Hessler has a way of just putting out one question so you said you have extensive modeling going on here but have you ever seen a plant hit what it was supposed to hit and it wasn't noisy, that hit 43 dBA?

MR. HANKARD: It becomes quite challenging to measure 43 sometimes in the field and no. That is because it is, because the traffic and bugs and birds and wind are loud. That is why it is challenging.

Can ask to have the question again. I got distracted with the chatter.

CHAIRMAN PARTINGTON: Question was, Mr. Hessler stated even though there all these things said they are not going to be as noisy in there he never seen one in

operation that was, in fact, under the noise limits that they stated so I wondered if you, in fact, seen something that was.

MR. HANKARD: What he is referring to, and he can correct me if I'm wrong, he is primarily referring to the steam bypass process, not the plant as a whole. And what I just told you and I will reiterate is that in terms of the plant as a whole we often they are under what they thought it would be if they were trying to be 43, they are 40 or less.

CHAIRMAN PARTINGTON: Once your mitigation levels are there, it would be you know --

MR. HANKARD: With regards to the steam bypass, we have not measured a steam bypass system that would be this low. So I do not have that direct experience to be perfectly honest with you.

CHAIRMAN PARTINGTON: Thank you. That was my question. So thank you, sir. Anyone?

SECRETARY FERRIERA: The duct work that you talk about wrapping, will that be mounted directly to the frame or insulating or mounting type insulate or cables used to support the duct work or duct work would be rather large or vibration from that be down to non existent or will that add to the noise?

MR. HANKARD: For the designers we will have to

account for the additional wake lag. There is no question about that. That is a typical design phase item to address. We are adding weight to the duct. They have a structural engineer in there to make sure if they have to put in supports they put in supports.

I know when some of these, there was a loud noise, stump elements, they required some additional support. That is really not my end of the deal. We recommend what we recommend and then somebody else has to make sure that it gets implemented appropriately from a structural engineering standpoint.

SECRETARY FERRIERA: Maybe I should redirect the question then. In your experience, who will be doing the design work for the duct work that will be moving the steam, moving the air along or is that an engineer's type --

MR. HANKARD: That is not something that I -- I am not involved in the steam process part.

SECRETARY FERRIERA: If you were to be involved in that, if you were to recommend using that type of insulating bracket to help quiet the duct work, would they listen to you?

MR. HANKARD: I couldn't hear you. I am sorry.

SECRETARY FERRIERA: If you were to recommend some type of insulating type of mounting bracket or cable type

setup for the duct work itself, would they take that into consideration when they designed the construction?

MR. HANKARD: I'm not sure I understand your question. So what we do is we would specify the acoustic performance of the lang and maybe specify some of the materials that have to be of certain density and certain weight and then it is up to the EPC contractors to implement that.

SECRETARY FERRIERA: We are just talking about the lagging and installation here then?

MR. HANKARD: Is there something else?

SECRETARY FERRIERA: I'm curious about duct work itself because a lot of noise can be mitigated by going through rubber type mounting, almost like moon mounting type of idea if you will.

MR. HANKARD: I see where you are going. There is vibration insulation elements all over these plants because equipment needs to be protected from the vibration so it doesn't become as much of an issue as noise generating noise propagating out into the community. It is protecting the equipment.

SECRETARY FERRIERA: Fair enough. Thank you.

BOARD MEMBER WOODS: I'm still concerned about the startup and shutdown and that particular noise that sounds like you are basing all of your opinions on this

third party contract for someone that is guaranteeing that and there is no modeling for that or some way to actually say, I swear that it will be 43. So you are, I mean, I know the statement that says it. It is a lot easier to ask for forgiveness than to ask for permission, so if the valve fails or doesn't come up to the standard that it needs to be, how are we protected?

People come before the Planning Board for certain approvals. We don't say okay we believe you. We need to see some kind of data for that. I mean if it exists out there we should have it to look at then.

MR. HANKARD: So, again, the process starts where we are right now with our model so we are predicting. Again, we have told you this valve manufacturer doesn't give us some number that you think you might be able to meet this, understand you have to meet this. We told them this is serious.

BOARD MEMBER WOODS: Do we shoot them if they fail?

MR. HANKARD: No. They have to meet the limit.

BOARD MEMBER WOODS: It is very important that we know what that valve is and you are expecting us to take your word that you are expecting to hey take his word.

ATTORNEY NOONAN: We have enforcement mechanisms, Town Ordinance 43 dBA. We could have asked for a variance from that and we have not. If not the Town has

enforcement procedures.

BOARD MEMBER WOODS: Do you know what that is?

ATTORNEY NOONAN: May I finish?

BOARD MEMBER WOODS: Yes, you may.

ATTORNEY NOONAN: Not just placed on the Planning Board, I know Planning sometimes you make recommendations, landscaping, et cetera, people don't follow through, do you chase them on bond? You have a Town Ordinance that is enforced, I assume, by one of the Police Department issues summons or citations or fines and violations, that is what it is or you can take it -- you have a Town Ordinance to enforce it but what was said we will meet, the 43 dBA, we have not sought a variance. That is it.

BOARD MEMBER WOODS: What you are saying is take our word for it.

ATTORNEY NOONAN: Not at all. If you are disregarding all of the evidence and the modeling it is not taking our word for it. There is substantial evidence before you. To argue that you have seen nothing -- little is not true. The fact is everything points to the ability to do this and the guarantee through the EPC and if it is not done the Town has an enforcement mechanism.

BOARD MEMBER WOODS: What we are asking very simply

is this, is this valve in working condition somewhere in a power plant that can be tested? Is it a state of the art thing that has not been produced at this point and being manufactured specifically for Invenergy?

ATTORNEY NOONAN: I can let Mr. Hankard address follow-up to his question that he didn't say he seen GAC but not dealt with a municipality or regulation that 43 dBA was a requirement. Because of this, because it is low when he says he has not seen it that is why because, as Mr. Hessler said, your ordinance is low.

BOARD MEMBER WOODS: Our zoning ordinance is in our trial.

ATTORNEY NOONAN: It is your Code of Ordinance.

BOARD MEMBER WOODS: Code of ordinance. I was asking how they plan on meeting that? How you go guarantee that by a manufacturer that you are going to put this off guaranteeing to you. I want more insurance of that.

MR. HANKARD: Well, directly to your question do they exist or are they state of the art? They are state of the art. That is what you want. You want the best that is out there. I think that is what you are going to get. We have asked our manufacturer to supply exactly what you have asked. Do you want installation perhaps not that meets 43 but tell us where you have one of these

and yes, we may go out and measure an EPC contractor because they are under contractual obligation to meet it. They are going to be particularly interested in going out and measuring. So, those things are being explored.

BOARD MEMBER WOODS: Is that, any of that information that you are receiving been submitted to our consultant for his review at this point?

MR. HANKARD: David, our transient noise report, how we model and what we use and there was follow up on work answered in data, work for the Town. But I don't think some of the technical details of the like, for example, the specific lagging was laid out. So I would say he has perhaps 95 percent of the information and we need to get him the other five and he can respond.

BOARD MEMBER WOODS: You are personally 100 percent convinced this would meet the 43 dBA.

MR. HANKARD: I am convinced it would meet the dBA.

BOARD MEMBER WOODS: So we would have data I guess to review that.

MR. HANKARD: Sorry.

BOARD MEMBER WOODS: Is data going to be submitted to us showing that, how that would happen? You went through talking about how you are going to wrap the ducts and lagging, all these different things for noise. I'm asking about something, that valve, other than someone's

word, a contractors word.

MR. HANKARD: Our model is based in part on contractors word. That is how the process goes. They are the one that supplies it. I have to go on their word. BOARD MEMBER WOODS: I'm done.

CHAIRMAN PARTINGTON: Thank you, sir. Are you all set?

ATTORNEY NOONAN: I am.

BOARD MEMBER PICK: I have a question. Who is the manufacturer?

MR. HANKARD: So correct me if I'm wrong, GE is partners with CCI is the Invenergy manufacturer?

BOARD MEMBER PICK: Say it again.

MR. HANKARD: CCI.

BOARD MEMBER PICK: Just real quick, I read about an emergency steam release or emergency shutdown. Are those factors included in this dBA? Do they -- are those actions resonate a higher dBA? Where are we with those?

MR. HANKARD: They are higher than the 43. They are considered emergency events predicted to occur once a year and they are exceptions from the ordinance, the ordinance doesn't exempt an emergency situation.

BOARD MEMBER PICK: Okay.

ATTORNEY NOONAN: My next witness will deal with traffic Maureen Chlebek from McMahon Associates.

MAUREEN CHLEBEK,

called as a witness, being duly sworn, testified as follows:

THE COURT REPORTER: Please state and spell your last name for the record.

THE WITNESS: Maureen Chlebek, C-H-L-E-B-E-K.

ATTORNEY NOONAN: Thank you, Maureen. Again, we have submitted her CV to the Board.

If you could go through generally your background education and work experience.

MS. CHLEBEK: I am an associate manager with McMahon Associates. I have been practicing traffic engineering for 32 years. I got my bachelors from the University of Rhode Island and graduate work from Northeastern. I am licensed in the States of Rhode Island, Connecticut, and Massachusetts. As a professional engineer I'm also licensed as a practicing transportation operations engineer.

ATTORNEY NOONAN: What was LaPlant and Associates asked to do as involved in this Invenergy product.

MS. CHLEBEK: Asked to conduct a traffic impact study of the site.

ATTORNEY NOONAN: In addition to conducting that site are you aware of the June 16th, 2016, report from CDR McGuire and Mr. Jackson's testimony this evening?

MS. CHLEBEK: Yes, I am.

ATTORNEY NOONAN: And you were present during his testimony, correct?

MS. CHLEBEK: Correct.

ATTORNEY NOONAN: I will refer you, Maureen, if you can just walk us through the report that was prepared for this project.

MS. CHLEBEK: Yes. I will give you a brief summary and elaborate on any points you wish me to. Generally when we approach the studies we do it in three steps. First step is to assess the existing conditions. The second step is project traffic to a future year for no build condition and lastly we look at traffic operations.

So what we began looking at is existing conditions. We assessed the roadway network in the surrounding area. We collect traffic comp data. We directed traffic moving counts on two intersections on a weekday those counts were collected from 7:00 to 9:00 a.m. and 3:00 to 5:00 p.m.

We also collected a traffic recording at seven locations along Route 100 which is a designated truck route to the site. With that data we were able to identify the peak hour traffic as morning hour 7:00 to 8:00 a.m. and afternoon being 3:15 to 4:15 p.m.

We also looked at three years of accident data that

was obtained from the Burrillville Police Department. We took the accident data and we related it to the volume of traffic at the two study intersections and segments along the truck route.

We converted into what we call crash rates and again that just tells you how crashes are relative to the volume of traffic and we found the crash rates to be below anything that would be indicative of severe safety hazards. When we looked to future year conditions we projected ahead to 2021 based upon the construction schedule for the proposed site.

So when we looked ahead to project the traffic, the first thing we do is find out if there are any roadway projects in the area that changed travel patterns. We were informed of two projects. There is a roundabout that is going to be constructed at Route 100 and Route 44 intersection by RIDOT and also were informed about the Route 44 resurfacing project. Neither of these projects changed the travel patterns in the study area.

We also coordinated with the Town to develop a growth rate for the background applied one percent growth rate to background traffic and were informed that there was another proposed site in the area that needed to be included in our study. So at this point, we began to develop trip generation for the site itself and typically

we do a build condition. But, in this situation, because the construction traffic was of concern, we did two things. We did the build condition and construction condition.

So in terms of future build condition, it is actually a low traffic generator. We took the number of employees based there and truck traffic expected to come to the site when it is fully built and occupied and we generated peak traffic options.

Then` we went ahead and did the same thing for the construction site. So, the full build volumes are fairly low a.m. peak area. There is a total of 33 trips in and out of the site, same in the p.m. peak. So really what was of more concern was the construction traffic that would be generated and that so based upon the information of how they would build this plant we looked at four different phases of construction.

First phase is what we refer to as mobilization phase, generally when they are bringing material to the site. Last phase is when we demobilize and take everything away. The middle two phases were the key ones for traffic analysis, so one of the phases was referred to as underground phase and other one was above ground phase. Each of those phases we detailed what trucks would be coming to the site when those trucks would come

and at what rate. So, for example, in underground phase you had the most trucks coming with 30 to 50 trucks per day. You had other trucks bringing pipes, concrete and additional deliveries brought to the site. So from each of these phases we came up with a number of trucks. We broke it down to how many would come in one hour. We also looked at the staff that would be employed in each of those phases and the trip generation from that staff.

So, what we did next is really to be very conservative, we instead of just applying each bio traffic where it resulted for example when the workers there are leaving the site, it is generally 5:00 to 6:00 p.m., whereas the peak hour is surrounding peak is 3:15 to 4:15, we made a what if all of the worst conditions happened in the same hour. So we took the highest truck traffic in the construction stage and took the highest employment traffic in the construction stage and got it to the peak hours of the surrounding street met work. And then with that we were able to analyze those traffic volumes.

Also when we assigned that traffic to the surrounding streets we based it on two different things. So the truck traffic, is it coming from the designated truck routes that have been identified, the employee traffic was directed to the street network based upon

censor journey to work data. So with that, the traffic was superimposed on the existent street network and the results were analyzed in terms of capacity and analysis and what that does is it really measures particularly at the two intersections that we looked at which was Pascoag Main Street and South Main Street and Church Street, Pascoag Main Street and High Street, we are measuring delay on each approach with the added traffic of those intersections and comparing it to what would it be without this site.

So generally what we found, first of all, I had Pascoag Main Street and South Main is we maintained the general level of service except the left lane, which reduced from the a.m. peak and p.m. peak. Under the peer review we were asked what the level of service would be had we not taken such a conserve approach and combined all of the worst conditions. So we went back and looked at the amount of that and we took, like we allocate the traffic to whichever peak it will occur in and what is found is that same movement would drop to Level Service E, level service is ranked A through F. Typically D is acceptable surface meaning reaching capacity F means long delays.

So similarly a surge roaming and Pascoag Main Street, High Street in the morning we were able to

maintain all levels of service. In p.m. we maintained all levels except southbound approach which dropped from C to F under our conservative analysis and then again it responds to the periods. We redid the analysis with numbers allocated in each peak and it dropped to a Level E.

We also looked at site distance at the proposed site driveway Long Lake Road. Again, I know it has been mentioned before but we will be in front of RIDOT for a physical alteration permit. We have already been in discussion with them to coordinate on this project. So these are some of the things that will go before them. But in terms of the site distance, we looked at two different site distances. There is interaction site distance and safe stopping site distance.

When you look east on the proposed site driveway you meet interaction and stopping site distance. Looking to the west you meet only stop and site distance. There is a horizontal curve in the roadway that hinders the sight distance so interaction site distance means someone could put out this site driveway and be able to see a car with enough distance, so that takes a gap that would not slow down anybody on the Main Street.

Safe stop and site distance indicates that if a car were to pull out that driveway, somebody has to on Main

Street have adequate time to see and react to that car stopped without any conflict or incident. So typically you like to meet both but often in New England as long as you meet safe stop and safe distance, it is considered safe and based on what I summarized to date we drew conclusions about the project.

Clearly in full build it is very low traffic generator and not much impact to surrounding street system and in the most dense construction stage you will see some delays at the two intersections that I spoke about but again you know generally that would bring one movement down to level so to speak, so those are your pretty much your traffic impacts.

ATTORNEY NOONAN: You had an opportunity to review the comments from CDR and McGuire, correct? And they point out, I think on Page 1, a number of questions or inconsistencies. Did you review those and what did you do with that information?

MS. CHLEBEK: We did review that and we prepared responses for all those comments. I can summarize anything you want.

ATTORNEY NOONAN: Anything you want to point out that changes any of your conclusions.

MS. CHLEBEK: No.

ATTORNEY NOONAN: And you were here earlier when

Mr. Jackson testified that CDR Maguire agrees with your modeling and your conclusions, correct?

MS. CHLEBEK: That is right.

ATTORNEY NOONAN: I don't have anymore questions for Maureen right now. We do have someone else from McMahon here that can talk about the pavement issues if people are interested in that, but we will finish up with Maureen, I guess.

CHAIRMAN PARTINGTON: In order to get this covered if you can make your comments brief.

SECRETARY FERRIERA: We have to go quickly, Maureen. I'm looking at High Street, Church Street intersection and my primary concern is there is the type of trucks that you are describing, ten and eighteen wheeler combination site distance coming south on Church Street to the intersection of High Street essentially facing CVS. You have zero -- sorry. You do not have adequate site distance looking up High Street. With a car you just barely see it. With a truck you can't see anything to give you any kind of warning. I'm wondering what your recommendation is for that intersection?

MS. CHLEBEK: So the majority of trucks that are coming and bringing deliveries are all going to be single unit trucks and not tractor trailers, the bulk of the trucks. We did site distance of the driveway which we

did not do it at that intersection, but the trucks are permitted on that road are regulated by RIDOT. That is a designated truck route and they would also be on Route 100 not coming from High Street.

SECRETARY FERRIERA: I'm looking to be able to see what is coming down High Street. My vehicle would have to go about a quarter of the wheel into the intersection. With a cement truck you would have to see eight ten feet into the road.

MS. CHLEBEK: That is the situation today for the truck traffic out there today.

SECRETARY FERRIERA: I'm wondering what the proposal is to address that.

MS. CHLEBEK: We did not propose improvement at that location.

BOARD MEMBER LUPIS: I have a question: It is a similar area that Bruce is talking about. When you do your studies, your traffic studies you also look at weight limits on certain roads if there are underground bridges or culprits or anything like that.

MS. CHLEBEK: Yes, we do.

BOARD MEMBER LUPIS: I have some experience with a similar area that Bruce is talking about. I have trouble moving down to the ocean. The boat moving company tells me they are not allowed to cross a certain area almost

opposite CVS but further up the street because something underground no longer can handle the weight load when they pull their wide load permit. So they have to snake through some neighborhoods. They have been doing this the last few years every Spring and Fall. Has that been addressed, weight loads and requirements?

MS. CHLEBEK: This may be more of a question for Bob. There was a weight limit that has been taken off, I believe in the location that you are speaking about.

I know he did an assessment of the roadways and pavement particularly along the truck route and we looked for the terms of the trucks and weight limits to make sure that was adequate for what would be coming from the site.

CHAIRMAN PARTINGTON: Thank you very much.

ATTORNEY NOONAN: I think follow-up then will be with having Robert Smith testify.

ROBERT SMITH,

called as a witness, being duly sworn, testified as follows:

THE COURT REPORTER: Please state your name and spell your last name for the record.

THE WITNESS: Robert Smith, S-M-I-T-H.

ATTORNEY NOONAN: Mr. Smith, I wonder if you could just introduce yourself to the Board in terms of your

background and credentials regarding your involvement in this traffic study.

MR. SMITH: My name is Bob Smith, senior engineer with McMahon Associates working there for about a year and-a-half now. I worked for 32 years at the Rhode Island Department of Transportation where in my last position I was chief of design for this project. We conducted an assessment of the existing pavement conditions just to set sort of a baseline to see particularly what was the result of the impact of all the construction vehicles during construction.

So, we went out there this Spring and looked at the pavement and took review of all of the conditions along the expected truck route from Route 100 just north of Chepachet all the way to the site entrance.

ATTORNEY NOONAN: And what findings or results did you have from that analysis?

MR. SMITH: We found, we identified some areas where the pavement was in relatively poor condition and other areas where it was good. Specifically just coming out of Chepachet a section of 100, between 98 and 102 is pretty poor, Gloucester, in need of immediate maintenance. Coming up from there into in Pascoag there has been some chip seals done and pavement. Typically an agency will do a chip seal to extend the surface life of pavement.

That is what has been done along that section of Route 100. I believe it was done in 2011, 2012.

So, the pavement may have been deteriorating at the time but that chip seal would extend the service life for several more years so it doesn't have to be reconstructed. Then right through Town the condition is pretty good. I believe at the bridge that somebody was talking about up around the corner to pass High Street onto Church Street again, there is Church Street as you progress north gets progressively more poor, particularly on the northbound side. The ground looks like water is trapped there and pavement condition is relatively poor there and from that point on, where it becomes Long Lake Road more recent chip seal was done and that condition is much better as you go from there up to the project site. One other spot at the intersection of South Main and Pascoag, Main Street as you come down the hill to the intersection you can see some rutting is developing there in the northbound pavement. Typically if vehicles, heavy vehicles come in and brake approaching an intersection you get ruts in the pavement. That is happening already. There is also some evidence at that intersection that vehicles may be going up on the sidewalk from time to time because the sidewalk is cracked and the curb is depressed in both directions.

ATTORNEY NOONAN: What was the purpose of doing this curb pavement analysis in terms of this project?

MR. SMITH: The purpose is to set a baseline of conditions before construction starts so that everyone is aware of what the conditions are, we can measure that at the end of the construction to see if deterioration has taken place beyond what you would normally expect given whatever the conditions or weather and development around town is going to be over the few years, what construction is going on, measure what would be beyond what we normally expect the deterioration, what actually happens three or four years from now.

ATTORNEY NOONAN: I just wanted to make the Town aware that we did this and to see what happens going forward. Any questions for him?

CHAIRMAN PARTINGTON: Thank you. Okay. Thank you very much.

ATTORNEY NOONAN: Thank you. I'm not sure what you want to do. I have another witness that is really going into four or five different areas. I can start if you want or if he is --

CHAIRMAN PARTINGTON: I would like to be able get the public in, if I can, if you are amenable that.

ATTORNEY NOONAN: I don't think -- I have two other experts that I just simply can't do it in this short

time.

THE AUDIENCE: I think the Town should be allowed to speak.

THE AUDIENCE: They heard you enough.

CHAIRMAN PARTINGTON: And please if you notice I will be trying to get you up here. Give me a second.

THE SPEAKER: Point of order.

ATTORNEY NOONAN: We are not going to get --

THE SPEAKER: You are not going to be able to complete this meeting tonight. That is very clear. Counsel is entitled to present their witnesses and the public is entitled to speak. I'm entitled to speak.

CHAIRMAN PARTINGTON: I know.

THE SPEAKER: I would appreciate it if you would consider scheduling another meeting so the public can speak and she can finish her witnesses.

CHAIRMAN PARTINGTON: We would like to do that. One of the issues is all of the experts have to come back.

THE AUDIENCE: This is our life.

CHAIRMAN PARTINGTON: My point is they have schedules.

THE AUDIENCE: We have lives.

CHAIRMAN PARTINGTON: I know you are never going to agree with what I have to say. Listen to what I say and maybe we won't waste a lot of time. What I'm trying to

say is we can either listen to the experts now and call the public back here and the experts may not be here. That is an issue. This is why we are trying to do things in a fashion where everyone is available or I can not run her experts now and go through as many as I can on the list before we run out of time. So that is, that is where the question runs.

THE SPEAKER: Mr. Chairman, can we --

BOARD MEMBER WOODS: What time are we adjourning?

CHAIRMAN PARTINGTON: Supposed to be 10:00.

THE SPEAKER: Can we simply schedule another meeting? I --

CHAIRMAN PARTINGTON: But we may not get the experts back.

THE SPEAKER: Have the experts testify now.

CHAIRMAN PARTINGTON: So ladies and gentlemen --

THE SPEAKER: Point of order, the open meeting calls for advertising the meeting. So the meeting has to be held in the same way whether it is one meeting or a continuation of the same meeting.

CHAIRMAN PARTINGTON: I understand that.

THE SPEAKER: So if you are going to have another meeting then experts are coming back. They are being paid. They are going to come back. My point of order is whatever decision you make, any continuation meeting has

to be performed in the same way this one was done and people have to be given the opportunity to speak and they have to be able to ask questions of experts.

CHAIRMAN PARTINGTON: I understand that. I do. Ladies and gentlemen, if you would give us time to process what is happening here because many of us have never done it in such a forum. It is important and incumbent upon us to do it all correctly because we want to make sure this entire process is both transparent and fair and legal. And we are trying to make sure that we do that. So, while it is easy to point at me or point at them and say, well, you are not doing it right. I get it. We are trying very hard to make sure we do it right. So we have 15 minutes left.

ATTORNEY NOONAN: I can't finish them but I can start them.

CHAIRMAN PARTINGTON: Okay.

ATTORNEY NOONAN: Mike Feinblatt.

MICHAEL FEINBLATT,

Being duly sworn, was called as a witness, testified as follows:

THE COURT REPORTER: Please state and spell your last name for the record.

THE WITNESS: Mike Feinblatt, F-E-I-N-B-L-A-T-T.

ATTORNEY NOONAN: My first witness or my witness now

is Michael Feinblatt. He is from ESS Group. Mike, can you give us a little bit of your professional background, please.

MR. FEINBLATT: I have a background science degree in mechanical engineering from Tuffs University for energy industrial services at ESS Group and more than 24 years experience in environmental consulting.

ATTORNEY NOONAN: Can you provide the Board with some background of your involvement at ESS, involvement with the Invenergy proposal.

MR. FEINBLATT: ESS a lead environmental consultant for the project and I'm the project manager for ESS, so I have been involved in all aspects for the environmental permit. I have attended all of the leads. We have regulatory agencies and are involved with the preparation of the Energy Citing Board application. I was involved in preparation for Air Permit Application, model board and report and health assessment report.

ATTORNEY NOONAN: I would like to focus first on the air issue. Can you reiterate the permits that are required for Invenergy regarding air?

MR. FEINBLATT: Invenergy is proposing a major stationery source so it is required to get a major stationery station resource from RIDEM.

ATTORNEY NOONAN: In terms of that, describe the air

setup and how the metal is working for that proposal.

MR. FEINBLATT: Well, the process of getting a major source air permit application is a very rigorous process. First step is look at other plants that are similar throughout the country and see what type of emission controls they have used and what type of emission limits they have had.

Second step is look at the different regulations that apply for the facilities. They are a variety of state and federal air pollution, regulation air pollution control regulations that apply to facilities like go through every regulation and figure out which elements apply and determine how the facilities will comply with each of those regulations. Then you look at all the available control technologies for air emissions and identify the most effective control technology because a requirement is to implement the best available technology for each pollutant.

So at the end you are looking at the entire suite of control technology and you are required to pick out the most effective and most fair disbursed model analysis.

The EPA has established air quality standards that are safe for public heath and public welfare. We are required to do an air analysis to demonstrate the emissions from the project whether considered if

emissions are from other sources in the area, whether to the cause and exceed some of the air quality standards. So it is a combination of all those area steps. In the end you are designing a project that is prospective of air quality in the area.

ATTORNEY NOONAN: Are you familiar with the letter from the Planning Board dated May 11, 2016, as in regards to questions about air quality?

MR. FEINBLATT: I am.

ATTORNEY NOONAN: And, just hone in on some of those. Can you explain the air quality of the area today and how that would change as a result of the presence of CREC?

MR. FEINBLATT: As I said the EPA established national air quality standards. So these are the levels of concentration of most common pollutants which is considered to be safe for public health and when a new source is being permitted they are required to show that they are not going to cause and exceed those standards.

Currently based on the modeling date that is available, the entire State of Rhode Island is in compliance with National Air Quality Standards so right now the air quality statewide, including Burrillville, is considered to be safe for public health and welfare and again we had to do a modeling analysis for our plant to

show that with the increase in consternations that could potentially occur as a result of the project operating that there were still maintaining the levels below those standards and that demonstration has been made through the modeling support that we submitted.

ATTORNEY NOONAN: Going on another question that was asked in that same correspondence was how you being Invenergy intend to prevent the dissipation of any harmful pollutants going into the air while in this process?

MR. FEINBLATT: Comes back down to best control process. We talk about, you look at every other power plant in the United States over the last 15 years. See what they use for controls. You have to identify every potential control technology available for every pollutant, rank them in order of decreasing effectiveness and evaluate them from the Town down and unless you can eliminate the most effective control technology you have to implement it. By doing that back analysis you have assured that you are proposing state of the art emission controls that produce the highest level of control to any other similar source that has been implemented in the United States.

ATTORNEY NOONAN: Along those lines, next question that was included in the planners correspondence was

describe the process of removing all the harmful pollutants from air before it is released from the proposed plan.

MR. FEINBLATT: Two primary emission controls for the plan are effective reduction system designed to reduce NOx emissions and obvious systems breach turbine designed to remove carbon monoxide and other air toxins.

ATTORNEY NOONAN: Are you familiar with Mr. Epner's or Fuss and O'Neil's report and his testimony here this morning?

MR. FEINBLATT: I am.

ATTORNEY NOONAN: And, do you have any comments or anything to add to what he had to say?

MR. FEINBLATT: We went through the comments. We have made all of the corrections that were recommended. We are in the process of preparing an addendum to be submitted to Rhode Island Department of Environmental Management clarifying the inconsistencies discovered. The results of that analysis have not changed. We are showing compliance with the standards which is required by RIDEM.

ATTORNEY NOONAN: Mr. Feinblatt, based on environmental consulting experience, can you state to a reasonable degree of environmental certainty the CREC impact on air to protect human health and welfare in the

Town of Burrillville.

MR. FEINBLATT: I can based on the fair model analysis that we conducted. It demonstrates that level of contamination in Burrillville and within 50 kilometers in the facility will remain at levels determined by the EPS for safety for public health.

ATTORNEY NOONAN: Mr. Chairman, if I might, that concludes his direct testimony on air areas. I have other areas. I don't know if you want to turn it back to your Board for questions on air.

CHAIRMAN PARTINGTON: Yes, I think I will.

BOARD MEMBER WOODS: I read in the report where that you are able to buy credit for air pollution. Can you explain that to me a little bit?

MR. FEINBLATT: EPA and RIDOT established several allowance programs and the purpose of the programs is to set caps on certain emissions of certain pollutants so that in a given state or region emissions stay below a certain amount and then by asking people or requiring people to purchase allowance you have modified emissions and given entities incentive to reduce emissions. So it has two purposes. It is to set a cap that can't be exceeded because there is a certain amount of allowances and monetizing it you give incentive to reduce emissions.

BOARD MEMBER WOODS: From area to area if there was

a cap on emission and one area was way below that they can sell a credit to another area that could bring that back up?

MR. FEINBLATT: Right. For example for CO2 there is region gas initiative which is a consortium of nine northern states and they set a cap CO2 emission from power industry and given each state a budget and that budget goes down every year. So the reason Rhode Island there is a concern number of CO2 allowances available every year and that number goes down every year.

So the idea is over time to make sure that the power industry in the aggregate is reducing CO2 emission so Invenergy will be allowed to purchase from that program for CO2 emissions.

BOARD MEMBER WOODS: Has Invenergy pursued buying credits for their emissions?

MR. FEINBLATT: There are different programs, programs you don't buy allowances until you are ready to emit. There are other programs, for example, they are required to buy emissions for NOx and DOC and those are, it is a very different program in that you have to, there is not a state allowance, you have to go out and find somebody that has generated offsets and purchase those offsets from another entity.

So that in that case they will not be granted their

major source until they purchase those allowances.

BOARD MEMBER WOODS: I just want to understand this a little bit. In order for Invenergy to meet their requirements for emissions will they need credits?

MR. FEINBLATT: Well, the credits, the NOx and DOC that I spoke of is a one time purchase. You basically offset your annual initiative one time. You buy them and get your permit and you don't have to do anything else. CO2 is an annual system you do every year. You have to purchase allowance CO2 and there is acid rain program that you apply allowance for sulfur so every year you buy allowances.

BOARD MEMBER WOODS: Are you aware of the health risk assessment?

MR. FEINBLATT: I am.

BOARD MEMBER WOODS: Reading in part of what we have been submitted at least for myself, I don't have a complete package on that, but it says that what would be acceptable is one person out of 10,000 getting cancer from these emissions. Is that correct in assuming that?

MR. FEINBLATT: That is a guideline that has been established by RIDEM.

BOARD MEMBER WOODS: That is what is acceptable?

MR. FEINBLATT: Keep in mind that is based on very conservative analysis -- that assumes that person is

basically standing in one spot breathing air continuously for 30 years.

BOARD MEMBER WOODS: I know people standing living in one spot for 30 so years that is why, that is why I'm asking the question. Are there other areas in Burrillville that would be at risk more than others? Would you know that?

MR. FEINBLATT: Well, we model all locations. So we have results in every location. What you do is report the worst case scenario so the results from the Health Risk Assessment Report are based on the highest value that was modeled. We model a bunch of receptors around the area and took the worst case result and that was the result presented. So it is less than that everywhere else.

BOARD MEMBER WOODS: That Health Risk Assessment Report, was that available to us already?

MR. FEINBLATT: Um --

BOARD MEMBER WOODS: I just I think I just had part of it.

MR. FEINBLATT: We can make that available, sure.

BOARD MEMBER WOODS: Thank you.

CHAIRMAN PARTINGTON: Okay.

ATTORNEY NOONAN: Keep going?

BOARD MEMBER WOODS: It is 10:00.

CHAIRMAN PARTINGTON: It is ten. You are done with the gentleman?

ATTORNEY NOONAN: He has three more areas to talk about. He is not done.

BOARD MEMBER WOODS: I would like to make a motion.

(DISCUSSION OFF THE RECORD)

CHAIRMAN PARTINGTON: So, so the other issue that we have is, we will need to come up with a date specific this evening before everyone leaves in order to continue this or it will have to be re advertised. Do you have any particular dates that are contemplated?

ATTORNEY NOONAN: I have been asking this question for a month about new dates. Two primary witnesses, Mr. Feinblatt and Mr. Allard are my two witnesses so. May I have two minutes.

CHAIRMAN PARTINGTON: Sure. Off the record.

(DISCUSSION OFF THE RECORD)

CHAIRMAN PARTINGTON: We are trying to come up with a date so we don't have to re-advertise. Give us a minute in case you are wondering what these discussions are. It is all about the date that we can do this again.

(DISCUSSION OFF THE RECORD)

CHAIRMAN PARTINGTON: All right. Ladies and gentlemen, we are going to continue. I'm going to do a motion right now to continue this meeting until July the

11th, which is Monday following the 4th of July. Okay. Motion from the chair to continue this meeting to July 11th, 2016, at 6:00 o'clock in this location.

SECRETARY FERRIERA: Second.

CHAIRMAN PARTINGTON: All those in favor? Opposed? Very good.

(MOTION PASSED)

ATTORNEY MCELROY: It would save the Town a lot of money if we didn't have to bring our consultants back. They made their presentation and they asked, the Invenergy have asked their questions.

THE AUDIENCE: We have not.

CHAIRMAN PARTINGTON: Ladies and gentlemen, please.

ATTORNEY MCELROY: Although the public can present any additional questions they may have to our experts through you as chair, you can present questions to us which we will then get answered and post them on the website. It will be a lot more convenient if they didn't have to come up again. No direct questioning of them any way, as I said at the beginning of the meeting, any such questions would have to be posed through you.

CHAIRMAN PARTINGTON: One minute okay.

(PAUSE)

CHAIRMAN PARTINGTON: We can take everything that the public says and bring it to our consultants at some

point, yes.

ATTORNEY MCELROY: That's correct.

CHAIRMAN PARTINGTON: That would be okay.

BOARD MEMBER WOODS: I would like -- should we have discussion on that at all?

CHAIRMAN PARTINGTON: We can. What is your point?

BOARD MEMBER WOODS: Well, all of these people have their own questions and what their questions are, I don't know what they are.

CHAIRMAN PARTINGTON: Understood.

BOARD MEMBER WOODS: Neither do any of us.

CHAIRMAN PARTINGTON: What so what I'm suggesting, when they pose the question that they will go to the consultants and answer will come back.

BOARD MEMBER WOODS: But that puts the burden on them.

CHAIRMAN PARTINGTON: It does. But also, the consultants from Invenergy will be here.

BOARD MEMBER WOODS: But our consultants are getting paid. They are not. I think we should favor the citizens.

CHAIRMAN PARTINGTON: I agree with you but the questions can still be answered.

BOARD MEMBER WOODS: It might be difficult on them.

CHAIRMAN PARTINGTON: Our consultants have answered

all of our questions.

BOARD MEMBER WOODS: They have not answered theirs.

CHAIRMAN PARTINGTON: True, and we will be able to bring them to them and they should be able to do so and follow it all the way through as we do this in any event. If they are available then they should come back. If they are not available, then they won't. July 11th if you have room on your calendars, I would appreciate that. And we can run through that. So with that, motion to adjourn.

BOARD MEMBER PICK: Second.

CHAIRMAN PARTINGTON: Any further discussion? All those in favor? Opposed?

(MOTION PASSED)

CHAIRMAN PARTINGTON: Thank you. Good night everyone.

(ADJOURNED 10:16)

*** * * * * * * * * * * * ***

C E R T I F I C A T I O N

I, **KAREN CESERETTI**, Notary Public, do hereby certify that I reported in shorthand the foregoing proceedings, and that the foregoing transcript contains a true, accurate, and complete record of the proceedings at the above-entitled hearing.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 11th day of July, 2016.

_____

KAREN R. CESERETTI, NOTARY PUBLIC/CERTIFIED COURT REPORTER

MY COMMISSION EXPIRES: 6/21/17
IN RE: Town of Burrillville Planning Board Meeting
DATE: July 11, 2016

0

0.5 [4] - 87:9, 87:10, 88:1, 93:24
02903 [1] - 2:16
02909 [1] - 1:22

1

1 [4] - 3:7, 57:15, 124:16
10,000 [1] - 141:19
100 [14] - 22:21, 54:8, 55:17, 56:13, 57:8, 58:4, 59:2, 115:15, 118:21, 119:16, 126:4, 128:14, 128:21, 129:2
102 [1] - 128:21
10:00 [4] - 4:17, 7:17, 132:10, 142:25
10:16 [1] - 146:17
11 [2] - 136:7, 147:14
11:00 [2] - 11:15, 29:16
11th [4] - 144:1, 144:3, 146:7, 147:7
120 [1] - 3:6
125 [1] - 19:16
13 [1] - 103:23
135 [1] - 3:6
137 [1] - 3:7
14 [1] - 90:23
14th [1] - 1:15
15 [3] - 56:12, 133:14, 137:13
15-105 [1] - 63:18
153 [1] - 3:7
16th [1] - 117:24
18 [3] - 33:19, 57:20, 58:5
19 [8] - 45:13, 45:14, 46:9, 46:14, 46:17, 46:21, 47:2, 50:6
1994 [2] - 63:20, 63:21
1st [1] - 63:20

2

2 [3] - 3:6, 3:7
20 [6] - 1:13, 1:1, 46:5, 89:15, 89:24, 107:13
200 [13] - 40:2, 72:14, 77:18, 77:25, 78:3, 78:8, 83:20, 87:3, 87:22, 88:3, 88:10, 89:13, 90:3
2000s [1] - 95:3
2001 [6] - 71:5, 71:23, 72:6, 72:23, 78:25, 83:1
2005 [3] - 71:22, 76:3, 83:15
2011 [1] - 129:2
2012 [1] - 129:2
2013 [2] - 72:6, 95:12
2016 [11] - 1:13, 1:1, 31:2, 63:22, 63:25, 64:3, 117:24, 136:7, 144:3, 147:7, 147:14
2021 [1] - 119:10
20th [1] - 67:9
21 [1] - 3:7
225,000 [1] - 71:19
24 [1] - 134:6
25 [2] - 68:8, 68:14
250 [2] - 76:7, 76:10
26 [2] - 31:1, 98:9
26th [1] - 32:19
2700 [1] - 52:6
28th [1] - 1:8
2nd [1] - 1:8

3

3 [2] - 3:7, 14:5
3.6 [2] - 39:22, 39:23
30 [8] - 37:21, 74:8, 82:13, 97:6, 102:20, 121:2, 142:2, 142:4
31 [2] - 19:16, 44:4
32 [2] - 117:13, 128:5
33 [1] - 120:12
35 [1] - 102:21
37 [2] - 76:4
3:00 [1] - 118:18
3:15 [2] - 118:24, 121:13
3A [20] - 70:21, 71:4, 71:21, 72:19, 73:3, 73:5, 73:15, 74:15, 75:11, 75:18, 78:20, 78:24, 79:5, 79:9, 83:11, 83:22, 95:2, 95:10, 96:3

4

40 [9] - 10:1, 14:15, 14:18, 54:8, 54:21, 89:15, 89:24, 103:9, 109:10
40,000 [5] - 45:13, 50:6, 51:15, 52:9
401.274-7200 [1] - 2:17
401.352.6869 [1] - 1:23
41 [1] - 16:15
42 [1] - 80:9
425 [1] - 1:13
43 [52] - 9:4, 9:6, 9:11, 9:17, 9:23, 10:4, 10:10, 10:12, 11:8, 11:19, 12:5, 12:8, 13:10, 13:24, 14:25, 15:3, 15:12, 16:18, 16:22, 16:25, 17:3, 17:14, 17:20, 17:24, 18:8, 18:13, 19:5, 23:5, 27:9, 27:10, 31:10, 99:19, 102:6, 102:9, 103:6, 103:14, 106:10, 107:8, 107:9, 107:22, 108:16, 108:18, 109:9, 112:3, 112:24, 113:13, 114:7, 114:25, 115:16, 116:19
44 [6] - 13:24, 29:18, 55:17, 57:8, 119:16, 119:18
45 [1] - 9:10
46 [1] - 102:8
4:15 [2] - 118:24, 121:14
4th [1] - 144:1

5

5 [1] - 87:6
5/19 [1] - 49:13
50 [6] - 14:15, 14:17, 14:18, 16:16, 121:2, 139:4
524 [1] - 78:13
53 [1] - 9:4
536 [1] - 1:22
55 [26] - 16:23, 16:24, 16:25, 17:1, 17:3, 17:7, 17:15, 17:24, 18:1, 18:4, 18:7, 18:8, 18:9, 18:13, 18:15, 18:16, 72:13, 77:25, 78:2, 83:19, 87:1, 87:3, 87:22, 88:2, 88:15
5:00 [3] - 11:14, 118:18, 121:12

6

6 [1] - 31:7
6/21/17 [1] - 147:13
60 [1] - 90:22
600 [3] - 76:8, 76:12, 80:8
62 [1] - 103:22
642 [1] - 80:6
65 [2] - 83:22, 84:4
6:00 [3] - 1:13, 121:12, 144:3
6th [1] - 67:7

7

7 [1] - 3:6
75 [1] - 103:20
78 [1] - 22:19
7:00 [2] - 118:18, 118:23

8

82/60 [1] - 78:13
84 [1] - 15:2
85 [1] - 15:5
8:00 [1] - 118:24
8:50 [1] - 96:24

9

9 [1] - 93:9
9,000 [1] - 52:6
900,000 [1] - 76:22
920,000 [1] - 80:6
925,000 [1] - 71:20
95 [1] - 115:13
98 [1] - 128:21
99 [1] - 30:22
9:00 [1] - 118:18
9th [1] - 49:7

A

a.m [4] - 118:18, 118:24, 120:12, 122:14
abilities [1] - 80:2
ability [5] - 3:17, 3:23, 3:24, 76:2, 113:22
able [29] - 5:17, 5:24, 14:3, 23:5, 48:6, 61:6, 61:9, 65:10, 65:20, 66:22, 69:24, 74:20, 75:16, 77:24, 84:9, 84:10, 99:9, 112:15, 118:22, 121:19, 122:25, 123:21, 126:5, 130:22, 131:9, 133:3, 139:13, 146:3, 146:4
above-entitled [2] - 1:11, 147:5
absolutely [4] - 22:4, 31:13, 43:24, 99:11
absorbs [1] - 30:5
absorption [2] - 30:4, 74:19
abutting [1] - 57:4
ACC [3] - 25:2, 28:7, 28:8
accept [1] - 1:9
acceptable [5] - 14:5, 31:8, 122:22, 141:19, 141:23
acceptance [1] - 1:7
ACCEPTED [1] - 1:13
access [11] - 1:23, 56:13, 56:14, 57:1, 60:1, 60:20, 60:22, 62:17, 62:18, 62:24, 69:15
accident [6] - 45:25, 56:17, 56:18, 56:22, 118:25, 119:2
accidental [1] - 46:1
accidents [1] - 56:20
account [3] - 55:13, 56:11, 110:1
accounted [1] - 1:7
accuracy [2] - 32:4, 32:25
accurate [2] - 107:15, 147:4
achieve [1] - 107:7
achieving [1] - 99:19
acid [1] - 141:10
acoustic [2] - 100:10, 111:4
acoustically [2] - 100:9, 101:7
Act [1] - 1:25
act [1] - 100:24
action [5] - 2:2, 2:12, 2:19, 3:1, 27:11
actions [1] - 116:18
activa [1] - 72:20
activated [2] - 85:5, 85:11
Activating [1] - 74:18
active [3] - 18:21, 27:24, 85:11
acts [1] - 73:12
actual [5] - 32:20, 36:16, 41:12, 75:18, 76:19
add [8] - 16:11, 89:22, 99:13, 100:3, 100:25, 103:18, 109:24, 138:13
added [5] - 17:25, 102:2, 102:11, 106:11, 122:8
addendum [2] - 44:18, 138:16
adding [1] - 110:3
addition [6] - 5:19, 16:13, 17:24, 42:24,

100:25, 117:23
additional [12] - 6:10, 6:14, 13:10, 44:13, 49:19, 75:13, 102:3, 106:4, 110:1, 110:7, 121:4, 144:15
additionally [1] - 95:1
additive [2] - 71:7, 87:19
address [11] - 2:4, 65:17, 69:11, 97:21, 99:20, 103:3, 104:18, 110:3, 114:5, 126:13
addressed [6] - 64:7, 65:15, 68:6, 102:3, 103:4, 127:6
addressing [1] - 50:19
adds [1] - 70:1
adequate [4] - 21:14, 124:1, 125:17, 127:13
adequately [2] - 9:12, 60:5
adjourn [1] - 146:10
ADJOURNED [1] - 146:17
adjourning [1] - 132:9
adjust [1] - 66:15
ADLER [1] - 2:14
administrative [2] - 32:18, 32:19
ado [1] - 4:19
adult [1] - 47:11
adversely [1] - 75:5
advertise [1] - 143:19
advertised [1] - 143:10
advertising [1] - 132:18
advisable [1] - 46:6
advise [3] - 6:5, 32:3, 32:4
advising [1] - 5:9
advisory [9] - 3:16, 3:20, 5:14, 6:12, 27:5, 27:13, 43:22, 70:6
affair [2] - 91:3, 107:12
affidavit [1] - 101:20
afternoon [1] - 118:24
agencies [2] - 69:7, 134:15
agency [3] - 32:7, 38:22, 128:24
agenda [4] - 1:5, 1:17, 2:3, 2:12
aggregate [1] - 140:12
ago [3] - 29:14, 63:15, 82:10
agree [7] - 24:19, 55:7, 64:20, 93:23, 104:3, 131:24, 145:22
agreed [3] - 55:7, 93:23, 94:1
agreement [2] - 55:19, 65:11
agrees [1] - 125:1
ahead [5] - 97:8, 103:25, 119:10, 119:12, 120:10
Air [2] - 134:17, 136:22
air [68] - 7:24, 11:21, 15:18, 28:19, 32:6, 32:10, 32:11, 33:10, 33:13, 36:14, 37:10, 39:10, 40:9, 40:12, 40:16, 40:17, 40:18, 40:20, 40:21, 40:22, 40:25, 41:9, 41:21, 41:25, 42:12, 45:12, 45:20, 46:11, 51:18, 52:14, 52:16, 53:8, 74:4, 74:5, 74:6, 74:16, 74:20, 76:17, 82:25, 100:12, 100:15, 100:16, 110:15, 134:20, 134:21, 134:25, 135:3, 135:10, 135:15, 135:22, 135:24, 136:2, 136:5, 136:8, 136:11, 136:15, 136:23, 137:9, 138:2, 138:7, 138:25, 139:8, 139:10, 139:13, 142:1
airborne [1] - 48:23
alarm [2] - 18:20
Algonquin [3] - 65:2, 65:3, 65:9
algorithms [1] - 16:12
Allard [1] - 143:14
alleged [1] - 1:24
allocate [1] - 122:18
allocated [1] - 123:5
allow [3] - 23:17, 24:21, 96:12
allowance [5] - 139:16, 139:20, 140:22, 141:10, 141:11
allowances [5] - 139:23, 140:9, 140:18, 141:1, 141:12
allowed [7] - 7:5, 7:7, 17:15, 69:17, 126:25, 131:2, 140:13
alluded [1] - 26:9
almost [4] - 81:24, 95:2, 111:14, 126:25
ALSO [1] - 2:9
alteration [3] - 60:19, 60:21, 123:10
altercation [1] - 64:23
alternate [1] - 61:12
alternative [2] - 80:18, 80:22
ambient [2] - 41:9, 42:12
Ambient [1] - 41:21
ambients [1] - 41:25
amenable [1] - 130:23
ammonia [22] - 7:25, 44:25, 45:10, 45:11, 45:13, 45:18, 45:19, 45:22, 46:4, 46:9, 46:14, 47:2, 48:18, 48:24, 49:2, 50:9, 51:24, 52:10, 52:13, 52:18, 52:21, 53:1
amount [10] - 4:7, 52:18, 68:4, 77:3, 78:5, 104:6, 108:4, 122:18, 139:19, 139:23
amounts [2] - 36:4, 36:9
amplify [1] - 29:20
analysis [29] - 21:21, 22:20, 45:18, 46:8, 47:13, 55:17, 56:17, 58:10, 78:13, 81:19, 84:9, 89:16, 94:6, 94:9, 103:21, 104:6, 120:22, 122:3, 123:3, 123:4, 128:17, 130:2, 135:21, 135:24, 136:25, 137:19, 138:19, 139:3, 141:25
analyze [1] - 121:19
analyzed [1] - 122:3
analyzing [1] - 98:21
AND [2] - 1:1, 2:14
and-a-half [4] - 29:18, 83:22, 98:9, 128:5
annual [2] - 141:7, 141:9
annually [4] - 37:6, 38:12, 38:13, 39:23
answer [11] - 4:16, 24:17, 24:18, 24:21, 34:18, 35:19, 47:5, 79:25, 82:6, 89:11, 145:14
answered [7] - 4:18, 20:1, 115:10, 144:17, 145:23, 145:25, 146:2
answering [1] - 80:1
answers [1] - 59:17
anyway [1] - 9:23
anyways [1] - 80:19
apologize [1] - 20:8
applicable [1] - 42:10
applicant [12] - 4:4, 24:20, 32:9, 33:4, 33:20, 34:19, 39:16, 39:20, 41:2, 44:10, 44:14, 46:7
APPLICANT [2] - 1:11, 2:13
applicant's [1] - 33:12
applicants [2] - 32:6, 93:12
Application [1] - 134:17
application [19] - 32:6, 32:11, 32:15, 32:17, 33:7, 34:6, 39:11, 44:7, 52:2, 77:1, 77:21, 87:2, 88:2, 88:14, 89:13, 92:24, 99:4, 134:16, 135:3
applied [1] - 119:21
applies [1] - 9:19
apply [5] - 42:7, 135:9, 135:11, 135:13, 141:11
applying [1] - 121:10
appreciably [1] - 10:4
appreciate [5] - 2:19, 44:20, 70:10, 131:14, 146:8
approach [4] - 118:10, 122:8, 122:16, 123:2
approaching [1] - 129:20
appropriate [1] - 24:7
appropriately [1] - 110:10
approval [4] - 3:17, 3:19, 69:22
approvals [1] - 112:9
approve [1] - 3:24
approved [1] - 33:13
approves [1] - 41:23
April [3] - 1:8, 32:19, 63:20
aqueous [1] - 45:13
aquifer [3] - 79:9, 83:16, 84:13
aquifers [2] - 79:8, 79:11
area [32] - 15:25, 25:25, 30:4, 35:13, 35:15, 40:3, 50:10, 56:13, 57:18, 62:5, 64:8, 64:9, 75:4, 99:14, 99:16, 118:15, 119:14, 119:19, 119:23, 120:12, 126:17, 126:23, 126:25, 136:1, 136:3, 136:5, 136:11, 139:25, 140:1, 140:2, 142:13
areas [16] - 26:7, 40:4, 43:7, 43:12, 62:25, 68:5, 70:7, 103:11, 107:25, 128:18, 128:20, 130:20, 139:8, 139:9, 142:5, 143:3
argue [1] - 113:20
arms [1] - 22:12
arrangement [1] - 85:12
arrangements [1] - 75:13
art [5] - 53:8, 114:3, 114:20, 114:21, 137:20
artist [1] - 25:14
aside [1] - 93:10
aspect [1] - 28:18
aspects [2] - 54:2, 134:13
assess [1] - 118:11
assessed [1] - 118:15
assessing [1] - 45:23
assessment [6] - 32:25, 33:6, 127:10, 128:8, 134:18, 141:14
Assessment [2] - 142:11, 142:16
assessments [2] - 32:12, 32:14
assigned [1] - 121:21
assist [1] - 33:16
Assistant [1] - 5:9
associate [1] - 117:11
Associates [4] - 116:25, 117:12, 117:19, 128:4
assume [4] - 61:10, 106:24, 107:18, 113:9
assumed [1] - 21:20
assumes [1] - 141:25

assuming [2] - 40:24, 141:20
assumptions [1] - 12:4
assured [1] - 137:20
atmosphere [8] - 36:11, 36:20, 40:4, 40:6, 50:17, 50:18, 74:12, 76:21
attempt [2] - 65:8, 91:13
attendance [1] - 1:6
attended [2] - 17:19, 134:14
attention [2] - 24:8, 28:12
attorney [1] - 4:21
Attorney [2] - 4:21, 68:9
ATTORNEY [108] - 5:7, 8:8, 26:24, 27:1, 30:11, 30:20, 30:25, 31:6, 31:14, 31:17, 31:19, 43:15, 43:24, 44:2, 44:7, 44:12, 44:22, 44:24, 53:12, 53:14, 60:9, 60:13, 60:16, 60:23, 60:25, 61:20, 67:20, 67:24, 68:16, 68:20, 68:24, 70:3, 70:14, 93:15, 93:17, 93:22, 94:1, 94:4, 94:8, 94:12, 94:16, 94:21, 95:1, 95:6, 95:13, 95:19, 95:22, 96:1, 96:6, 97:3, 97:12, 97:21, 98:4, 98:22, 99:8, 99:17, 102:25, 103:3, 104:18, 105:17, 106:9, 106:18, 108:10, 112:23, 113:3, 113:5, 113:17, 114:5, 114:13, 116:8, 116:24, 117:7, 117:19, 117:23, 118:2, 118:5, 124:14, 124:22, 124:25, 125:4, 127:16, 127:24, 128:16, 130:1, 130:13, 130:18, 130:24, 131:8, 133:15, 133:18, 133:25, 134:8, 134:19, 134:25, 136:6, 136:10, 137:6, 137:24, 138:8, 138:12, 138:22, 139:7, 142:24, 143:3, 143:12, 144:8, 144:14, 145:2
attraction [1] - 7:23
ATWELLS [1] - 1:22
audible [1] - 14:1
AUDIENCE [13] - 20:12, 21:6, 24:13, 36:23, 65:18, 66:1, 72:17, 79:20, 131:2, 131:4, 131:19, 131:22, 144:12
authority [2] - 39:20, 41:6
automatically [1] - 85:8
available [18] - 1:16, 37:11, 43:1, 62:14, 70:9, 79:15, 94:12, 99:24, 132:4, 135:15, 135:17, 136:21, 137:15, 140:9, 142:17, 142:21, 146:6, 146:7
Avenue [1] - 1:13
AVENUE [1] - 1:22
average [4] - 37:2, 37:14, 42:19, 42:20
aversion [1] - 107:25
avoid [2] - 9:16, 62:18
avoidable [1] - 63:10
avoidance [1] - 63:8
aware [7] - 58:7, 93:13, 94:22, 117:24, 130:5, 130:14, 141:13

B

bachelors [1] - 117:13
background [11] - 10:16, 19:18, 19:20, 40:9, 117:9, 119:21, 119:22, 128:1, 134:2, 134:4, 134:9
backup [1] - 37:8
bail [1] - 23:8
bails [4] - 22:10, 22:11, 25:7, 26:8
ball [2] - 104:22, 108:7
band [4] - 10:11, 10:12, 10:23, 103:16
bands [4] - 18:23, 19:2, 19:16, 104:4
barely [2] - 14:5, 125:19
barrier [2] - 73:13, 106:8
barriers [1] - 100:21
Barry [1] - 1:16
base [1] - 101:9
based [24] - 24:3, 24:10, 33:7, 34:24, 79:22, 80:15, 80:25, 82:10, 88:7, 89:23, 107:4, 107:13, 116:2, 119:10, 120:7, 120:15, 121:22, 121:25, 124:5, 136:20, 138:22, 139:2, 141:24, 142:11
baseline [4] - 55:18, 99:3, 128:9, 130:3
basic [1] - 42:7
basing [1] - 111:25
basis [9] - 37:16, 37:20, 38:18, 70:4, 72:23, 78:2, 81:19, 81:22, 99:2
become [3] - 60:3, 85:17, 111:19
becomes [6] - 62:14, 81:6, 103:8, 103:9, 108:17, 129:13
began [2] - 118:14, 119:24
begin [3] - 27:3, 50:20, 63:16
beginning [3] - 51:9, 63:25, 144:20
behind [1] - 36:14
bell [1] - 7:3
below [10] - 9:9, 10:13, 18:17, 28:11, 103:9, 103:23, 119:8, 137:3, 139:18, 140:1
belts [1] - 82:17
benefit [7] - 19:4, 31:2, 67:11, 67:12, 93:13, 96:13
benzene [1] - 71:11
berm [2] - 26:16, 48:19
berming [1] - 25:24
berms [1] - 25:25
best [11] - 7:19, 28:18, 37:11, 43:1, 79:15, 80:1, 99:24, 114:21, 135:17, 137:11
Beth [1] - 93:13
better [5] - 19:7, 28:16, 55:4, 102:22, 129:15
between [12] - 13:23, 14:18, 17:14, 34:1, 36:24, 37:14, 44:9, 69:6, 72:6, 79:11, 81:9, 128:21
beyond [4] - 13:2, 17:4, 130:7, 130:10
big [3] - 14:21, 30:24, 67:4
bigger [1] - 28:8
biggest [1] - 54:5
billion [15] - 72:13, 72:14, 72:15, 77:18, 78:8, 78:14, 87:9, 87:10, 88:3, 88:4, 88:15, 89:13, 89:15, 89:25, 90:3
bio [1] - 121:10
biologist [1] - 62:17
birds [1] - 108:19
bisects [1] - 73:19
bit [9] - 11:1, 11:10, 12:3, 14:7, 63:13, 88:14, 134:2, 139:14, 141:3
biweekly [1] - 81:25
blank [1] - 92:5
blanket [1] - 106:1
block [2] - 26:20, 101:3
blocked [2] - 61:11, 61:12
blocking [1] - 30:3
blowing [3] - 47:8, 107:19, 107:24
Board [60] - 2:5, 2:6, 2:6, 2:7, 2:7, 2:8, 2:9, 3:15, 3:19, 3:21, 4:14, 5:10, 5:11, 5:12, 5:13, 5:19, 6:5, 6:7, 6:12, 6:18, 7:7, 7:12, 27:1, 27:4, 27:5, 27:12, 27:18, 30:12, 31:20, 43:10, 44:13, 49:7, 49:21, 61:24, 62:4, 63:22, 63:23, 65:16, 65:23, 65:24, 66:10, 66:15, 67:4, 67:24, 68:8, 69:1, 70:5, 70:9, 93:10, 94:4, 98:5, 112:8, 113:6, 117:8, 127:25, 134:8, 134:16, 136:7, 139:10, 147:13
board [5] - 52:2, 53:24, 67:17, 70:6, 134:17
BOARD [175] - 1:2, 2:3, 1:2, 1:10, 2:14, 13:17, 14:10, 14:15, 14:20, 14:24, 15:7, 15:16, 15:24, 16:4, 16:8, 16:21, 17:2, 17:8, 17:14, 17:23, 18:3, 18:10, 18:13, 18:16, 18:21, 19:9, 19:20, 19:23, 20:4, 20:7, 20:14, 20:15, 20:16, 20:25, 21:7, 21:10, 21:25, 23:4, 23:12, 23:14, 23:23, 29:2, 29:5, 29:9, 29:11, 29:25, 30:6, 35:2, 35:12, 35:18, 39:8, 39:13, 39:17, 39:22, 40:1, 40:5, 40:15, 40:25, 41:7, 41:14, 41:19, 42:2, 43:5, 43:10, 47:2, 47:7, 47:17, 47:18, 48:8, 48:19, 48:22, 48:25, 50:13, 51:7, 52:12, 52:17, 52:25, 53:3, 53:6, 53:10, 56:9, 56:25, 57:3, 57:11, 58:14, 58:20, 59:2, 59:6, 59:16, 61:3, 61:14, 61:18, 63:12, 64:17, 65:1, 65:19, 66:2, 67:3, 68:15, 77:17, 78:7, 78:15, 78:19, 79:7, 79:12, 79:18, 80:4, 80:5, 80:22, 81:2, 81:10, 81:22, 86:22, 87:8, 87:11, 87:14, 87:16, 87:21, 88:2, 88:6, 88:9, 88:25, 89:4, 89:9, 90:6, 90:10, 90:18, 91:12, 91:17, 92:11, 93:3, 96:7, 96:20, 111:23, 112:18, 112:20, 113:2, 113:4, 113:15, 113:25, 114:11, 114:14, 115:5, 115:15, 115:18, 115:21, 116:5, 116:9, 116:13, 116:15, 116:23, 126:16, 126:22, 132:9, 139:12, 139:25, 140:15, 141:2, 141:13, 141:16, 141:23, 142:3, 142:16, 142:19, 142:22, 142:25, 143:5, 145:4, 145:7, 145:11, 145:15, 145:19, 145:24, 146:2, 146:11
Board's [1] - 7:16
boards [1] - 69:5

boat [2] - 57:18, 126:24
Bob [2] - 127:8, 128:3
boiler [3] - 81:5, 87:5, 101:4
boilers [1] - 100:24
bond [1] - 113:8
book [3] - 4:22, 5:1, 102:21
bothered [1] - 10:2
bothers [1] - 66:24
bottle [2] - 47:3
boundary [2] - 63:17, 73:22
bracket [2] - 110:21, 110:25
brake [1] - 129:20
branches [1] - 30:3
breach [1] - 138:6
break [3] - 96:16, 96:17, 96:19
breakthrough [1] - 81:19
breathe [1] - 36:17
breathing [1] - 142:1
bridge [1] - 129:7
bridges [2] - 55:25, 126:20
brief [3] - 98:7, 118:8, 125:10
briefly [3] - 8:24, 22:5, 98:6
bring [10] - 1:4, 8:11, 38:13, 100:15, 108:8, 124:11, 140:2, 144:9, 144:25, 146:4
bringing [5] - 26:12, 93:12, 120:19, 121:3, 125:23
brings [1] - 62:20
broke [1] - 121:6
broken [1] - 92:2
broker [1] - 77:12
brought [8] - 2:2, 2:11, 22:9, 50:1, 58:6, 78:25, 90:19, 121:4
Bruce [3] - 26:16, 126:17, 126:23
bruce [1] - 2:5
budget [3] - 93:10, 140:7, 140:8
bugs [1] - 108:19
build [11] - 11:6, 22:16, 83:10, 102:18, 118:13, 120:1, 120:3, 120:5, 120:11, 120:16, 124:7
building [22] - 12:7, 13:7, 13:8, 25:24, 26:12, 26:13, 28:4, 28:6, 28:9, 75:19, 75:20, 100:7, 100:8, 100:11, 101:6, 102:15, 102:18, 102:20, 106:8, 106:17, 107:13
buildings [1] - 100:9
builds [1] - 92:17
built [5] - 59:24, 74:22, 99:22, 99:23, 120:8
bulk [2] - 36:11, 125:24
bumped [1] - 102:20
bunch [3] - 64:5, 97:3, 142:12
burden [1] - 145:15
buried [1] - 22:10
burned [1] - 36:2
burning [5] - 36:25, 39:2, 42:3, 42:4
BURRILLVILLE [1] - 1:2
Burrillville [20] - 1:12, 2:11, 2:12, 3:6, 5:25, 40:17, 40:19, 67:12, 70:25, 72:7, 78:1, 89:17, 96:9, 103:15, 119:1, 136:23, 139:1, 139:4, 142:6, 147:13
business [1] - 3:3
buy [5] - 139:13, 140:18, 140:20, 141:7, 141:11
buying [1] - 140:15
bypass [7] - 12:18, 21:11, 22:4, 105:15, 109:6, 109:13, 109:14

C

C-H-L-E-B-E-K [1] - 117:6
cable [1] - 110:25
cables [1] - 109:21
calculate [1] - 14:16
calculations [3] - 15:25, 32:15, 34:6
calendars [1] - 146:8
calibrated [1] - 38:11
California [1] - 90:19
cancer [1] - 141:19
canisters [1] - 85:14
cannot [1] - 76:20
cap [3] - 139:22, 140:1, 140:6
capabilities [1] - 24:5
capability [3] - 2:21, 76:15, 106:17
capacity [7] - 76:8, 76:11, 80:6, 80:11, 82:8, 122:3, 122:22
caps [1] - 139:17
car [6] - 36:2, 92:17, 123:21, 123:24, 124:1, 125:18
Carbon [1] - 74:18
carbon [28] - 36:9, 36:10, 52:22, 78:2, 78:6, 81:19, 81:20, 85:5, 85:11, 85:13, 85:16, 85:17, 85:19, 85:23, 86:1, 86:2, 86:3, 86:13, 86:14, 86:15, 86:16, 86:24, 86:25, 87:12, 87:25, 138:7
care [4] - 28:17, 62:12, 64:25, 99:23
careful [1] - 106:13
carries [1] - 1:14
carry [2] - 29:21, 33:19
cars [1] - 58:16
Carter [1] - 49:11
carter [1] - 49:15
case [12] - 9:16, 11:13, 48:12, 75:14, 80:21, 86:1, 100:8, 101:5, 140:25, 142:10, 142:13, 143:20
cases [4] - 73:21, 73:22, 83:18, 102:24
catalyst [2] - 37:10, 52:23
categories [2] - 92:11, 103:4
category [1] - 103:5
CCI [2] - 116:12, 116:14
CDR [4] - 53:22, 117:25, 124:15, 125:1
cell [1] - 65:4
cement [1] - 126:8
censor [1] - 122:1
Center [1] - 3:5
certain [15] - 30:17, 34:8, 70:1, 70:6, 81:8, 83:25, 111:6, 112:8, 126:19, 126:25, 139:17, 139:19, 139:23
certainly [2] - 43:22, 67:11
certainty [3] - 33:5, 107:6, 138:24
certificate [1] - 44:10
certified [1] - 64:1
certifies [1] - 63:19
certify [1] - 147:3
Ceseretti [1] - 1:12
CESERETTI [3] - 1:17, 147:3, 147:10
cetera [1] - 113:7
chained [1] - 32:13
Chair [1] - 7:11
chair [2] - 144:2, 144:16
chairman [14] - 5:8, 8:11, 26:24, 30:12, 35:3, 43:6, 43:15, 44:12, 44:24, 61:20, 66:3, 70:3, 97:12, 139:7
Chairman [3] - 2:4, 2:4, 132:8
CHAIRMAN [121] - 1:4, 1:11, 1:14, 1:19, 1:22, 2:16, 2:20, 2:23, 3:2, 8:12, 8:21, 12:15, 13:16, 19:22, 19:24, 20:8, 23:13, 23:24, 23:25, 24:10, 24:15, 24:24, 25:3, 25:4, 26:15, 26:22, 26:25, 27:15, 27:23, 28:25, 30:9, 31:21, 33:22, 34:14, 34:22, 35:1, 36:24, 37:13, 37:17, 42:17, 43:3, 43:9, 43:21, 43:25, 44:20, 44:23, 46:17, 46:23, 47:1, 49:23, 53:11, 53:13, 55:1, 55:12, 55:22, 60:7, 61:1, 61:19, 66:4, 68:18, 69:20, 70:10, 73:18, 73:23, 74:2, 75:22, 76:10, 76:13, 76:22, 77:2, 77:7, 77:16, 77:20, 79:24, 83:3, 83:16, 96:14, 96:21, 96:23, 97:1, 108:12, 108:23, 109:11, 109:17, 116:6, 125:9, 127:15, 130:16, 130:22, 131:5, 131:13, 131:17, 131:20, 131:23, 132:10, 132:13, 132:16, 132:21, 133:4, 133:17, 139:11, 142:23, 143:1, 143:7, 143:16, 143:18, 143:23, 144:5, 144:13, 144:22, 144:24, 145:3, 145:6, 145:10, 145:12, 145:17, 145:22, 145:25, 146:3, 146:12, 146:15
challenging [2] - 108:17, 108:20
change [7] - 14:7, 18:8, 36:12, 85:13, 85:16, 95:9, 136:12
changed [4] - 34:2, 119:14, 119:19, 138:19
changes [1] - 124:23
character [1] - 99:16
characteristics [1] - 47:14
characterized [3] - 2:17, 2:18, 2:24
charge [1] - 21:13
charged [2] - 3:10, 3:11
chase [1] - 113:8
chatter [1] - 108:22
check [1] - 68:17
checklist [1] - 51:4
chemical [8] - 46:9, 48:11, 51:10, 81:21, 84:9, 86:10, 87:18, 88:18
chemicals [5] - 45:23, 46:20, 48:5, 49:1, 51:3
chemistry [2] - 76:16, 85:2
Chepachet [2] - 128:15, 128:21
chief [2] - 49:12, 128:7
child [1] - 47:10
chiller [1] - 92:3
chip [4] - 128:24, 128:25, 129:4, 129:14
Chlebek [2] - 116:25, 117:6
CHLEBEK [14] - 117:1, 117:11, 117:21, 118:1, 118:4, 118:8, 124:19, 124:24, 125:3, 125:22, 126:10, 126:14, 126:21, 127:7
chlorine [1] - 50:17

choice [1] - 90:21
chose [1] - 68:7
choses [1] - 27:13
Christopher [1] - 2:7
Church [10] - 57:16, 57:17, 57:23, 59:9, 61:7, 122:6, 125:12, 125:15, 129:9
circle [1] - 38:16
circling [1] - 36:13
citations [1] - 113:10
Citing [2] - 3:18, 134:16
citing [4] - 52:2, 65:22, 67:17, 70:6
citizens [3] - 67:12, 96:9, 145:21
Citizens [1] - 2:16
city [1] - 103:12
civil [1] - 53:22
clarify [1] - 88:14
clarifying [1] - 138:18
classical [1] - 63:19
classroom [2] - 64:2
clause [2] - 45:21
clean [7] - 52:20, 57:15, 72:19, 87:12, 91:2, 91:6, 92:20
cleaned [3] - 34:7, 84:20, 85:24
cleaner [1] - 86:7
cleaning [5] - 53:3, 85:8, 92:20, 93:3, 95:2
cleansing [1] - 52:19
clear [7] - 16:10, 21:8, 60:10, 81:10, 95:22, 101:14, 131:10
Clear [10] - 3:5, 71:24, 72:1, 73:12, 73:19, 75:4, 75:8, 79:11, 83:25, 84:1
clearance [1] - 58:12
cleared [1] - 33:3
clearly [3] - 2:25, 62:7, 124:7
climate [1] - 36:12
clock [1] - 9:5
closed [2] - 56:21, 91:7
closely [1] - 63:2
closest [1] - 29:12
co [1] - 40:13
co-front [1] - 40:13
CO2 [8] - 39:22, 140:4, 140:6, 140:9, 140:12, 140:14, 141:9, 141:10
coal [1] - 33:14
Code [1] - 114:13
code [1] - 114:14
colleague [1] - 66:5
collect [1] - 118:16
collected [2] - 118:18, 118:20
collecting [1] - 8:7
combination [5] - 29:6, 34:20, 106:2, 125:15, 136:3
combined [3] - 98:18, 98:21, 122:16
combustion [7] - 35:25, 36:10, 100:6, 100:13, 100:19, 100:24
comfortable [3] - 12:13, 49:18, 66:14
coming [33] - 7:22, 13:18, 17:11, 20:20, 29:17, 54:8, 54:10, 54:12, 55:24, 57:21, 59:2, 59:10, 59:20, 61:11, 62:17, 86:24, 88:3, 89:7, 90:4, 90:7, 106:14, 107:17, 120:25, 121:2, 121:23, 125:15, 125:23, 126:4, 126:6, 127:13, 128:20, 128:23, 132:23
commence [1] - 1:13
comment [5] - 6:21, 6:22, 8:6, 97:18
commenter [4] - 7:1, 7:5, 7:9, 7:10
commenter's [1] - 7:15
commenters [3] - 6:24, 7:6, 7:7
comments [19] - 2:25, 4:14, 6:25, 7:6, 44:16, 49:9, 49:21, 50:4, 63:16, 97:6, 97:15, 99:21, 103:6, 124:15, 124:20, 125:10, 138:12, 138:14
Commission [1] - 89:18
COMMISSION [1] - 147:13
commissioned [1] - 12:1
committed [3] - 12:5, 12:6, 102:10
common [1] - 136:16
commonly [2] - 5:12, 71:10
communicating [1] - 35:5
communication [1] - 66:14
communities [1] - 35:23
community [4] - 9:13, 19:5, 31:9, 111:21
comp [1] - 118:16
companies [1] - 58:24
company [4] - 22:14, 66:12, 85:12, 126:24
compared [1] - 98:23
comparing [2] - 51:20, 122:9
compartments [1] - 100:15
complaint [1] - 106:25
complete [6] - 32:18, 32:19, 55:11, 131:10, 141:18, 147:4
completely [9] - 13:7, 14:9, 16:19, 17:6, 18:18, 21:18, 32:25, 76:6, 85:4
completeness [1] - 32:5
completes [1] - 13:14
completion [1] - 44:10
complex [1] - 107:12
compliance [11] - 3:24, 33:9, 38:3, 38:15, 41:25, 42:9, 63:21, 105:4, 105:9, 136:22, 138:20
compliant [1] - 5:25
complicated [1] - 51:5
comply [4] - 5:17, 64:1, 64:3, 135:13
components [1] - 85:4
compounds [1] - 36:7
Comprehensive [3] - 3:12, 3:13, 5:16
comprehensive [1] - 3:25
compressor [14] - 10:18, 16:5, 16:10, 16:14, 16:19, 16:22, 17:6, 17:16, 17:18, 17:24, 18:6, 18:7, 62:19, 62:21
compressors [1] - 101:4
concentrate [3] - 47:3, 77:18, 88:5
concentrated [1] - 89:2
concentration [5] - 45:14, 45:15, 88:7, 89:10, 136:16
concentrations [2] - 46:21, 87:18
conceptual [4] - 25:20, 63:14, 64:4, 66:18
concern [13] - 57:22, 71:3, 71:6, 71:9, 71:24, 72:20, 73:5, 75:4, 91:5, 120:2, 120:14, 125:13, 140:9
concerned [4] - 17:10, 38:24, 101:11, 111:23
concerning [1] - 46:15
concerns [1] - 90:10
conclude [2] - 7:16, 31:7
concluded [1] - 55:8
concludes [2] - 96:14, 139:8
conclusion [2] - 31:14, 97:19
conclusions [4] - 43:17, 124:6, 124:23, 125:2
concrete [5] - 56:5, 56:12, 61:11, 66:8, 121:3
condensate [1] - 72:15
condenser [3] - 15:19, 28:20, 100:16
condensers [2] - 11:21, 12:20
condition [15] - 27:6, 27:7, 27:8, 27:13, 27:20, 114:1, 118:13, 120:1, 120:3, 120:4, 120:5, 128:19, 129:6, 129:12, 129:14
conditions [24] - 30:18, 72:4, 74:4, 74:10, 74:12, 75:6, 76:19, 80:16, 82:13, 83:25, 84:10, 107:10, 107:21, 107:24, 118:11, 118:14, 119:9, 121:14, 122:17, 128:9, 128:13, 130:4, 130:5, 130:8
conduct [1] - 117:21
conducted [4] - 76:4, 84:7, 128:8, 139:3
conducting [1] - 117:23
cone [2] - 76:5, 84:15
confirm [1] - 105:2
conflict [1] - 124:2
conform [1] - 58:18
conformance [1] - 3:12
conformity [1] - 32:5
conjunction [1] - 76:3
connected [1] - 71:24
Connecticut [1] - 117:15
connection [2] - 73:10, 73:14
consequences [1] - 46:1
conservative [3] - 121:10, 123:3, 141:25
conserve [1] - 122:16
consider [3] - 27:19, 43:18, 131:15
consideration [1] - 111:2
considered [12] - 6:11, 24:9, 46:10, 74:25, 75:7, 75:11, 105:22, 116:20, 124:4, 135:25, 136:17, 136:24
consistent [2] - 5:15, 9:17
consistently [3] - 24:6, 24:11, 25:1
consortium [1] - 140:5
consternations [1] - 137:1
constituent [2] - 71:9, 86:17
constituents [2] - 71:14, 78:4
construct [1] - 69:3
constructed [2] - 107:11, 119:16
Construction [1] - 30:22
construction [35] - 5:18, 5:23, 6:1, 23:17, 27:21, 54:3, 54:5, 54:15, 54:19, 55:5, 55:11, 56:12, 56:19, 56:22, 58:14, 59:22, 61:4, 61:8, 108:9, 111:2, 119:10, 120:2, 120:3, 120:11, 120:14, 120:17, 121:16, 121:17, 124:9, 128:11, 130:4, 130:6, 130:9
consultant [7] - 45:8, 73:10, 93:8, 98:13,

98:14, 115:7, 134:11
consultants [10] - 4:3, 4:5, 4:12, 79:23, 144:9, 144:25, 145:14, 145:18, 145:19, 145:25
consulted [1] - 46:15
consulting [2] - 134:7, 138:23
contact [4] - 65:9, 67:16, 81:9, 87:17
contain [2] - 28:23, 33:1
containers [1] - 85:7
containing [1] - 29:24
containments [1] - 88:20
contains [1] - 147:4
contaminants [2] - 89:18, 90:17
contaminate [1] - 78:8
contaminated [1] - 89:8
contaminates [4] - 77:19, 87:11, 88:18, 88:24
contamination [10] - 72:22, 72:24, 74:6, 74:11, 82:15, 82:17, 82:19, 90:20, 90:25, 139:4
contemplated [3] - 56:1, 105:22, 143:11
context [2] - 9:24, 99:20
contingencies [1] - 77:14
contingency [2] - 74:15, 75:13
continually [1] - 80:23
continuation [3] - 95:3, 132:20, 132:25
continue [10] - 7:18, 20:14, 24:21, 33:16, 38:1, 76:1, 143:9, 143:24, 143:25, 144:2
continuing [2] - 27:8, 27:14
continuous [2] - 38:4, 38:14
continuously [2] - 38:11, 142:1
contract [4] - 85:12, 104:24, 112:1
contractor [6] - 12:7, 23:7, 30:16, 104:16, 104:24, 115:1
contractors [6] - 12:10, 30:17,
106:21, 111:7, 116:1, 116:3
contractual [2] - 105:3, 115:2
contributive [1] - 17:20
contributor [1] - 48:16
control [14] - 13:13, 37:10, 37:11, 43:1, 53:8, 89:18, 135:11, 135:15, 135:16, 135:20, 137:11, 137:15, 137:18, 137:21
controls [7] - 52:15, 57:8, 107:5, 135:6, 137:14, 137:21, 138:4
convenient [1] - 144:18
conversation [2] - 49:11, 96:8
converted [1] - 119:5
convey [1] - 67:5
conveyance [1] - 70:23
conveyed [2] - 71:15, 72:7
convinced [2] - 115:16, 115:17
cooking [1] - 85:23
cool [1] - 15:18
cooler [1] - 100:16
coolers [2] - 91:21, 101:4
cooling [5] - 84:18, 92:7, 92:9, 92:16, 100:17
coordinate [1] - 123:11
coordinated [1] - 119:20
coordination [1] - 57:10
copy [1] - 49:10
corner [1] - 129:8
corners [1] - 57:17
correct [37] - 2:7, 15:1, 16:13, 26:17, 30:18, 31:4, 31:5, 31:12, 31:13, 31:15, 60:11, 60:17, 67:22, 67:23, 68:22, 83:2, 93:20, 94:19, 95:4, 95:5, 95:12, 95:16, 95:18, 95:24, 95:25, 96:4, 96:5, 97:20, 109:5, 116:11, 118:3, 118:4, 124:15, 125:2,
141:20, 145:2
corrections [1] - 138:15
correctly [3] - 2:17, 2:18, 133:8
correspondence [5] - 1:15, 1:18, 2:11, 137:7, 137:25
costly [1] - 91:3
costs [1] - 90:22
Council [1] - 1:25
counsel [2] - 43:16, 131:11
count [3] - 5:5, 7:15
country [1] - 135:5
counts [3] - 19:6, 118:17
couple [5] - 20:16, 25:14, 35:12, 62:1, 62:9
course [2] - 33:25, 80:9
COURT [12] - 1:18, 8:17, 31:25, 45:5, 53:19, 97:5, 97:20, 98:1, 117:4, 127:21, 133:22, 147:10
Court [3] - 71:4, 71:23, 91:7
court [2] - 8:10, 96:16
cover [1] - 16:19
covered [1] - 125:9
covers [1] - 63:11
cracked [1] - 129:24
Craig [4] - 1:16, 1:23, 2:14, 2:16
CRAIG [3] - 2:18, 2:22, 2:24
crash [2] - 119:5, 119:7
crashes [1] - 119:6
create [3] - 36:8, 82:15, 82:16
created [2] - 15:9, 36:1
creates [2] - 28:19, 84:14
CREC [4] - 31:7, 107:7, 136:13, 138:24
credentials [1] - 128:1
credit [2] - 139:13, 140:2
credits [3] - 140:16, 141:4, 141:5
crickets [1] - 19:21
cross [1] - 126:25
crossroad [1] - 52:7
CSR [1] - 1:17
culprits [1] - 126:20
curb [3] - 69:17, 129:24, 130:2
curious [2] - 92:25, 111:12
curve [1] - 123:19
cut [3] - 20:9, 26:1, 69:17
cutoff [1] - 46:4
CV [1] - 117:8
CVS [2] - 125:17, 127:1

D

daily [2] - 51:2, 81:24
daisies [1] - 32:13
damage [2] - 55:20, 55:21
damages [1] - 23:9
dangers [1] - 35:23
DANIELLE@PREMIERLEGALSUPPORT.COM [1] - 1:23
data [20] - 16:15, 31:3, 32:23, 34:24, 68:12, 72:3, 90:1, 91:4, 93:19, 99:6, 99:24, 112:10, 115:10, 115:18, 115:21, 118:16, 118:22, 118:25, 119:2, 122:1
date [6] - 79:21, 124:5, 136:20, 143:8, 143:19, 143:21
DATE [1] - 147:14
dated [2] - 31:1, 136:7
dates [2] - 143:11, 143:13
David [7] - 8:13, 8:19, 101:10, 102:2, 102:12, 105:10, 115:8
DAVID [1] - 8:14
days [14] - 13:21, 21:18, 22:2, 51:23, 52:9, 72:3, 74:8, 76:1, 76:4, 80:7, 82:13, 99:14
daytime [1] - 108:2
dBA [46] - 9:4, 9:23, 10:2, 13:21, 13:24, 14:3, 14:4, 14:5, 14:8, 14:15, 14:19, 14:25, 15:2, 15:12, 15:24, 16:9, 16:22, 16:23, 16:24, 18:13, 22:19, 22:21, 23:5, 27:9, 27:10, 29:12, 29:21, 31:10, 99:19, 103:14, 103:20,
103:22, 103:23, 107:8, 107:9, 108:16, 112:24, 113:13, 114:8, 115:16, 115:17, 116:17, 116:18
deaden [2] - 26:7, 29:25
deal [8] - 7:23, 30:24, 66:13, 68:10, 89:10, 101:12, 110:8, 116:24
dealing [1] - 53:14
deals [1] - 77:12
dealt [4] - 96:1, 99:5, 99:6, 114:7
debate [1] - 20:9
decades [1] - 9:25
decibel [1] - 24:6
decide [2] - 7:12, 7:19
decided [1] - 102:15
decimal [1] - 107:7
decision [2] - 82:10, 132:25
decreasing [1] - 137:16
dedicated [1] - 101:3
deemed [1] - 32:18
deep [1] - 84:5
deferential [1] - 70:11
deficiency [1] - 80:9
definitely [1] - 21:24
definitive [1] - 24:2
degradation [1] - 55:13
degrade [2] - 83:3, 83:17
degree [4] - 98:8, 107:6, 134:4, 138:24
delay [1] - 122:8
delays [6] - 54:16, 54:17, 54:18, 55:6, 122:23, 124:10
delegated [2] - 39:19, 41:13
deliberations [1] - 27:12
delivered [3] - 54:23, 54:24, 56:6
deliveries [4] - 52:5, 54:22, 121:4, 125:23
delivering [1] - 54:6
delivery [3] - 57:21, 61:11
DEM [18] - 35:6, 35:9, 35:11, 41:20, 43:7, 43:11, 43:15, 43:17, 63:5, 63:8, 68:21, 68:23, 91:15, 94:20, 94:21, 94:22, 94:24,

95:15
demanding [2] - 9:8, 9:12
demands [2] - 76:25, 80:14
demobilize [1] - 120:20
demonstrate [2] - 75:3, 135:24
demonstrated [3] - 73:9, 73:15, 84:2
demonstrates [1] - 139:3
demonstration [2] - 79:4, 137:4
denied [1] - 69:14
dense [1] - 124:9
density [1] - 111:6
Department [13] - 32:8, 46:15, 47:19, 47:21, 49:19, 49:24, 49:25, 60:14, 99:18, 113:10, 119:1, 128:6, 138:17
depressed [1] - 129:25
depressing [1] - 65:20
depth [1] - 83:22
descent [1] - 85:9
describe [3] - 105:19, 134:25, 138:1
describing [1] - 125:14
design [26] - 9:17, 9:19, 23:10, 24:8, 25:22, 26:11, 27:20, 34:15, 34:16, 60:4, 63:8, 64:16, 73:16, 74:1, 75:2, 78:16, 84:22, 91:11, 100:18, 102:16, 105:12, 108:9, 110:2, 110:14, 128:7
designated [3] - 118:21, 121:23, 126:3
designed [14] - 9:15, 9:21, 11:19, 13:9, 36:18, 41:4, 41:22, 41:23, 74:17, 100:5, 106:9, 111:2, 138:5, 138:7
designers [1] - 109:25
designing [4] - 13:1, 14:24, 45:24, 136:4
designs [2] - 41:4, 102:1
DesJardins [1] - 2:7
DESJARDINS [1] - 96:20
detail [4] - 4:10, 12:15, 61:25, 62:10
detailed [2] - 25:18, 120:24
details [3] - 25:12, 66:11, 115:11
detect [9] - 77:24, 78:4, 78:12, 81:12, 87:6, 87:9, 87:10, 90:2, 90:7
detection [1] - 86:15
detention [1] - 62:2
deteriorating [1] - 129:3
deterioration [2] - 130:6, 130:11
determine [4] - 34:15, 47:14, 80:11, 135:13
determined [4] - 75:2, 87:19, 87:20, 139:5
develop [2] - 119:20, 119:25
developed [2] - 62:3, 63:24
developer [1] - 53:25
developing [1] - 129:18
DEVELOPMENT [2] - 1:7, 1:11
Development [2] - 3:4, 3:5
development [4] - 3:14, 3:15, 72:10, 130:8
diagram [1] - 52:1
dictate [1] - 26:11
die [1] - 84:11
diesel [8] - 42:6, 51:20, 51:22, 52:5, 52:6, 52:8, 57:25, 58:1
difference [10] - 13:23, 13:24, 14:2, 14:4, 14:8, 14:18, 14:19, 14:21, 17:14, 36:24
different [26] - 14:4, 14:9, 15:25, 16:11, 20:6, 20:12, 26:18, 37:5, 46:21, 48:17, 59:7, 61:13, 79:8, 85:3, 85:25, 91:20, 93:5, 96:2, 115:24, 120:17, 121:22, 123:14, 130:20, 135:8, 140:17, 140:21
differently [1] - 20:5
difficult [5] - 11:1, 12:12, 103:8, 103:9, 145:24
digits [1] - 90:5
diligence [2] - 23:10, 77:15
dioxide [6] - 36:10, 41:10, 41:12, 41:14, 41:16, 52:22
direct [6] - 7:6, 41:4, 98:16, 109:15, 139:8, 144:19
directed [2] - 118:16, 121:25
direction [5] - 5:12, 26:18, 54:11, 72:25, 84:14
directional [1] - 55:1
directions [1] - 129:25
directly [4] - 7:7, 99:18, 109:20, 114:19
dirtier [1] - 37:9
dirty [1] - 37:8
disburse [4] - 32:11, 33:6, 36:19, 40:3
disbursed [1] - 135:21
discharge [3] - 86:18, 89:17, 89:23
discharged [2] - 70:25, 75:8
discharges [1] - 72:7
disclosure [1] - 36:15
discovered [1] - 138:18
discrepancy [2] - 20:20, 20:21
discrete [1] - 34:4
discuss [4] - 63:13, 66:17, 98:17, 98:22
discussed [3] - 4:8, 61:21, 98:24
discussing [2] - 101:12, 105:17
discussion [9] - 1:11, 49:16, 70:16, 96:21, 106:19, 123:11, 143:22, 145:5, 146:12
DISCUSSION [2] - 143:6, 143:17
discussions [2] - 68:1, 143:20
disinfecting [2] - 53:4, 53:6
disks [1] - 21:17
disregarding [1] - 113:18
dissipation [1] - 137:8
dissolved [4] - 74:5, 76:21, 82:16, 82:19
distance [18] - 38:17, 40:8, 58:3, 123:7, 123:13, 123:15, 123:17, 123:18, 123:20, 123:22, 123:24, 124:4, 125:15, 125:18, 125:25
distances [1] - 123:14
distracted [1] - 108:22
distributed [1] - 63:15
distribution [1] - 28:9
district [2] - 49:17, 82:4
District [7] - 49:18, 73:8, 73:11, 79:6, 79:23, 91:6, 94:17
districts [1] - 94:18
disturbance [1] - 9:16
divide [1] - 79:10
division [1] - 95:16
doable [1] - 84:25
DOC [3] - 52:22, 140:20, 141:5
document [1] - 74:21
documentation [1] - 34:7
documents [15] - 32:10, 32:13, 32:17, 32:22, 32:24, 33:1, 33:17, 33:24, 34:11, 43:13, 78:10, 78:11, 80:12, 99:1, 99:2
DOH [1] - 91:15
dollars [2] - 90:22, 90:23
dominated [1] - 17:6
done [42] - 4:18, 7:18, 7:19, 12:2, 12:24, 12:25, 13:5, 13:14, 13:20, 15:14, 15:16, 23:15, 23:16, 24:7, 24:23, 27:1, 34:3, 44:5, 54:17, 55:9, 56:23, 56:24, 63:7, 68:1, 70:16, 77:8, 82:10, 94:5, 95:14, 100:13, 102:5, 113:23, 116:5, 128:24, 129:1, 129:2, 129:14, 133:1, 133:7, 143:1, 143:4
DOT [2] - 60:20, 69:17
dot [1] - 84:11
Dov [1] - 2:7
down [34] - 5:5, 6:23, 11:15, 21:15, 21:20, 22:25, 59:2, 59:10, 61:6, 61:7, 62:25, 64:18, 66:5, 74:24, 81:14, 89:15, 89:24, 92:2, 92:15, 93:23, 102:7, 109:23, 121:6, 123:23, 124:12, 126:6, 126:24, 129:17, 137:11, 137:17, 140:8, 140:10
dozens [1] - 20:23
drain [3] - 28:13, 29:3, 102:2
drainage [1] - 62:2
draw [5] - 72:24, 74:7, 74:9, 82:14, 84:1
drawing [9] - 78:20, 79:7, 79:9, 82:16, 82:19, 83:17, 83:24, 84:14, 92:5
drawn [1] - 74:12
dread [1] - 30:23
drew [1] - 124:5
drink [1] - 90:8
drinking [7] - 86:2, 86:3, 88:19, 90:6, 95:24, 96:2, 96:4
driveway [5] - 123:8, 123:16, 123:21, 123:25, 125:25
drop [1] - 122:20
dropped [4] - 104:23, 108:7, 123:2, 123:5
drum [1] - 29:20
dual [2] - 74:23, 77:23
duct [36] - 12:22, 13:3, 13:7, 15:21, 15:22, 21:22, 21:23, 22:1, 22:10, 22:17, 22:19, 22:21, 22:25, 23:11, 26:6, 26:13, 28:7, 28:14, 29:4, 100:20, 102:1, 102:11, 102:13, 105:24, 106:3, 109:19, 109:22, 110:3, 110:14, 110:21, 111:1, 111:12
ducted [1] - 28:14
ducts [2] - 16:2, 115:23
due [6] - 17:16, 47:20, 56:21, 71:5, 72:15, 77:14
duly [8] - 8:15, 31:23, 45:3, 53:17, 97:24, 117:2, 127:19, 133:20
dump [1] - 66:21
dumped [1] - 101:25
duration [3] - 78:5, 81:9, 81:20

during [40] - 5:18, 5:25, 11:13, 11:17, 11:19, 11:24, 12:19, 13:9, 24:8, 31:11, 36:14, 51:23, 54:3, 54:4, 54:5, 54:15, 54:19, 54:20, 55:5, 55:10, 56:9, 56:11, 57:22, 58:14, 59:23, 61:3, 61:5, 72:3, 72:5, 74:7, 74:12, 75:5, 76:24, 77:22, 82:13, 83:8, 86:4, 106:21, 118:2, 128:11
duty [2] - 45:20, 45:21

E

e-mail [1] - 1:15
E-P-N-E-R [1] - 32:2
early [2] - 22:2, 93:12
earth [2] - 26:7, 26:16
easement [1] - 65:5
easier [2] - 14:16, 112:5
East [1] - 1:13
east [2] - 9:22, 123:16
easy [1] - 133:11
echo [2] - 103:6, 103:13
educated [1] - 47:20
education [1] - 117:10
effect [6] - 10:8, 40:25, 72:1, 72:2, 78:21, 79:8
effected [1] - 79:19
effective [9] - 9:6, 26:14, 29:9, 29:10, 49:4, 135:16, 135:21, 137:18, 138:5
effectively [1] - 9:20
effectiveness [1] - 137:16
effects [1] - 47:10
efficiency [1] - 65:15
efficient [1] - 36:10
effluent [1] - 81:18
effort [1] - 108:6
EFSB [16] - 5:13, 5:19, 27:9, 27:11, 68:11, 68:17, 70:21, 72:11, 77:1, 77:20, 80:13, 87:2, 92:6, 92:24, 99:4, 105:10
eight [1] - 126:8
eighteen [1] - 125:14
either [2] - 38:21, 132:1
ejected [1] - 50:7
ejector [1] - 28:19
elaborate [1] - 118:9
elderly [1] - 47:11
electrical [1] - 98:8
element [1] - 106:2
elements [3] - 110:7, 111:17, 135:12
eliminate [2] - 21:18, 137:18
Elizabeth [4] - 2:15, 30:13, 44:1, 67:18
emergency [9] - 31:11, 47:24, 48:15, 56:11, 61:5, 116:16, 116:20, 116:22
emission [12] - 34:8, 36:17, 37:19, 38:3, 42:10, 135:5, 135:6, 137:20, 138:4, 140:1, 140:6, 140:12
emissions [32] - 34:15, 34:20, 35:24, 36:19, 37:9, 37:13, 37:22, 38:11, 38:23, 39:5, 46:12, 49:4, 49:5, 51:18, 52:15, 52:20, 52:24, 53:8, 135:15, 135:25, 136:1, 138:6, 139:17, 139:18, 139:20, 139:21, 139:24, 140:14, 140:16, 140:20, 141:4, 141:20
emit [1] - 140:19
emitted [1] - 35:22
employed [1] - 121:7
employee [2] - 98:13, 121:24
employees [2] - 54:22, 120:7
employment [1] - 121:17
enclose [5] - 13:7, 21:22, 23:11, 28:3, 102:15
enclosed [2] - 22:1, 105:21
encloses [2] - 26:12, 28:6
enclosing [1] - 15:21
enclosure [2] - 22:17, 22:24
enclosures [2] - 29:2, 108:6
end [7] - 9:2, 66:5, 101:19, 110:8, 130:6, 135:19, 136:4
Energy [4] - 3:5, 3:18, 5:12, 134:16
energy [3] - 16:10, 30:5, 134:6
enforce [1] - 113:12
enforced [2] - 7:2, 113:9
enforcement [4] - 27:10, 112:23, 113:1, 113:24
engine [1] - 36:2
engineer [7] - 53:22, 101:24, 106:15, 110:4, 117:16, 117:18, 128:3
engineer's [1] - 110:15
engineering [8] - 30:21, 68:3, 68:7, 98:8, 107:5, 110:11, 117:12, 134:5
Engineers [1] - 54:1
engines [1] - 92:16
England [4] - 22:6, 22:14, 34:25, 124:3
enhanced [1] - 45:16
ensure [8] - 33:9, 33:20, 38:14, 38:22, 42:8, 42:11, 104:19, 106:16
entire [6] - 22:10, 25:24, 105:20, 133:9, 135:19, 136:21
entirely [2] - 17:16, 92:1
entities [1] - 139:21
entitled [5] - 1:11, 131:11, 131:12, 147:5
entity [1] - 140:24
entrance [2] - 65:7, 128:15
enumerate [1] - 28:3
envelope [1] - 107:12
environment [1] - 103:13
Environmental [2] - 32:8, 138:17
environmental [6] - 103:12, 134:7, 134:11, 134:13, 138:23, 138:24
envision [1] - 45:17
EPA [12] - 37:22, 39:15, 41:22, 41:23, 42:1, 43:11, 45:20, 47:12, 78:13, 135:22, 136:14, 139:15
EPC [6] - 12:6, 12:9, 104:24, 111:7, 113:23, 115:1
Epner [6] - 7:25, 32:2, 37:18, 44:2, 44:17, 44:19
EPNER [37] - 31:22, 33:24, 34:18, 34:23, 35:4, 35:8, 35:16, 35:24, 37:5, 37:15, 37:23, 38:6, 38:9, 38:20, 39:1, 39:5, 39:7, 39:11, 39:15, 39:19, 39:25, 40:4, 40:8, 40:24, 41:2, 41:12, 41:16, 41:21, 42:7, 42:15, 42:22, 44:4, 44:11, 52:21, 53:2, 53:5, 53:8
Epner's [2] - 43:17, 138:8
EPS [8] - 23:7, 30:16, 30:20, 34:23, 41:8, 45:15, 47:16, 139:6
equally [1] - 101:11
equals [1] - 18:8
equipment [18] - 15:5, 16:16, 42:23, 46:15, 49:20, 55:14, 56:6, 59:13, 60:18, 101:3, 101:5, 101:13, 101:25, 102:23, 105:1, 108:5, 111:18, 111:21
equivalent [1] - 11:5
ERIC [2] - 31:22, 32:2
eric [1] - 32:2
errors [4] - 33:1, 34:6, 35:4, 35:7
especially [2] - 57:24, 75:14
Esquire [2] - 2:15, 2:15
ESS [5] - 134:1, 134:6, 134:9, 134:11, 134:12
essentially [5] - 12:22, 64:10, 83:1, 99:1, 125:16
establish [2] - 82:24, 89:17
established [5] - 6:4, 135:22, 136:14, 139:15, 141:22
establishes [1] - 56:18
estimate [1] - 90:15
estimation [3] - 15:12, 76:21, 106:5
et [1] - 113:7
ether [1] - 71:7
ethylene [1] - 71:11
evaluate [3] - 46:6, 74:3, 137:17
evaluated [2] - 74:14, 80:16
evaluation [2] - 80:24, 82:13
evaporated [1] - 82:25
evening [13] - 1:6, 2:9, 3:9, 4:3, 4:17, 5:10, 8:20, 8:21, 13:18, 30:11, 103:1, 117:25, 143:9
event [2] - 45:19, 146:5
events [1] - 116:20
eventually [1] - 106:10
everywhere [1] - 142:14
evidence [5] - 38:21, 77:4, 113:18, 113:20, 129:22
exact [3] - 37:23, 78:16, 78:17
exactly [3] - 16:20, 17:13, 114:23
examine [2] - 12:2
example [6] - 57:5, 115:11, 121:1, 121:11, 140:4, 140:19
exceed [2] - 136:2, 136:19
exceeded [1] - 139:23
except [5] - 46:13, 87:15, 90:21, 122:13, 123:2
exceptions [1] - 116:21
exchange [1] - 44:9
excuse [1] - 24:15
executive [1] - 20:17
exempt [1] - 116:22
exhaust [1] - 100:19
exhaustion [1] - 85:20
exist [1] - 114:20
existent [2] - 109:24, 122:2
existing [3] - 118:11, 118:14, 128:8
exists [3] - 42:21, 107:25, 112:10
exit [1] - 36:19
expanded [1] - 84:6
expanding [2] - 76:5, 76:6
expect [6] - 56:19, 62:11, 66:7, 97:16, 130:7, 130:11
expectation [1] -

97:17
expected [3] - 72:18, 120:7, 128:14
expecting [2] - 112:21, 112:22
expediential [1] - 14:8
expense [1] - 23:2
expensive [2] - 12:12, 28:1
experience [11] - 24:3, 24:11, 24:25, 33:7, 107:4, 109:15, 110:13, 117:10, 126:22, 134:7, 138:23
experienced [1] - 40:12
expert [5] - 6:8, 6:17, 8:9, 46:11, 52:16
experts [21] - 6:4, 6:15, 6:19, 7:8, 7:10, 7:13, 7:15, 7:22, 97:2, 98:5, 130:25, 131:18, 132:1, 132:2, 132:5, 132:13, 132:15, 132:23, 133:3, 144:15
EXPIRES [1] - 147:13
explain [7] - 11:1, 13:23, 47:7, 87:24, 105:23, 136:11, 139:14
explanation [1] - 35:20
exploration [1] - 83:8
explore [1] - 7:13
explored [1] - 115:4
exploring [1] - 7:14
explosive [1] - 12:22
exposed [1] - 81:11
expressed [2] - 10:14, 68:24
extend [5] - 4:25, 13:6, 28:6, 128:25, 129:4
extended [1] - 22:25
extensive [1] - 108:13
extent [1] - 84:3
extraordinary [1] - 24:12
extreme [1] - 23:10
extremely [4] - 10:13, 12:21, 39:1, 101:14

F

F-E-I-N-B-L-A-T-T [1] - 133:24
Facilities [1] - 5:12
facilities [10] - 9:6, 46:22, 62:20, 72:8, 72:12, 98:10, 100:5, 135:9, 135:11, 135:13
facility [31] - 5:15, 5:20, 5:23, 9:4, 10:1, 11:19, 25:10, 25:25, 31:7, 37:8, 37:19, 37:24, 42:22, 45:11, 45:12, 45:22, 45:25, 48:4, 48:5, 51:5, 53:24, 70:6, 72:16, 74:21, 75:10, 95:23, 99:23, 100:2, 139:5
Facility [1] - 71:1
facing [1] - 125:16
fact [9] - 2:13, 30:17, 40:8, 73:24, 103:13, 104:2, 109:1, 109:2, 113:21
factors [1] - 116:17
fail [2] - 81:17, 112:18
fails [1] - 112:6
failure [4] - 75:14, 80:21, 81:16
fair [6] - 83:24, 95:6, 111:22, 133:10, 135:21, 139:2
fairly [5] - 36:18, 103:8, 103:9, 120:11
faith [1] - 30:16
fall [1] - 40:6
Fall [1] - 127:5
falling [1] - 59:21
familiar [9] - 35:16, 59:3, 62:4, 68:11, 95:19, 99:10, 99:13, 136:6, 138:8
fans [1] - 100:15
far [3] - 26:5, 58:10, 104:3
fashion [1] - 132:4
fast [1] - 67:10
favor [7] - 1:12, 3:13, 3:15, 96:21, 144:5, 145:20, 146:13
feasible [2] - 64:20, 87:20
federal [1] - 135:10
federally [1] - 16:23
feed [1] - 101:4
feet [7] - 11:6, 15:4, 40:2, 83:23, 84:5, 107:18, 126:8
Feinblatt [5] - 133:18, 133:24, 134:1, 138:22, 143:14
FEINBLATT [22] - 133:19, 134:4, 134:11, 134:22, 135:2, 136:9, 136:14, 137:11, 138:4, 138:11, 138:14, 139:2, 139:15, 140:4, 140:17, 141:5, 141:15, 141:21, 141:24, 142:8, 142:18, 142:21
Felice [1] - 2:4
FELICE [4] - 23:25, 24:10, 24:24, 25:3
fence [3] - 34:2, 34:4
FERRIERA [54] - 1:9, 25:6, 25:9, 25:13, 25:19, 25:23, 26:4, 37:18, 38:4, 38:7, 38:16, 38:24, 39:3, 39:6, 42:3, 42:13, 42:16, 49:24, 50:5, 50:12, 51:14, 51:19, 52:3, 57:14, 58:13, 59:20, 60:6, 66:5, 82:5, 83:19, 83:22, 84:3, 84:17, 84:24, 85:5, 85:22, 86:4, 86:11, 86:21, 91:19, 91:25, 92:8, 96:18, 109:19, 110:12, 110:19, 110:24, 111:9, 111:12, 111:22, 125:11, 126:5, 126:12, 144:4
Ferriera [1] - 2:5
few [8] - 13:12, 13:21, 30:15, 51:23, 62:16, 63:15, 127:5, 130:9
fiberglass [1] - 29:6
field [4] - 24:4, 103:7, 107:5, 108:18
fifth [1] - 35:19
figure [4] - 42:14, 47:16, 75:24, 135:12
file [1] - 1:21
filled [1] - 56:12
filter [3] - 86:5, 87:14, 91:22
filters [3] - 86:24, 86:25, 87:12
filtration [1] - 92:2
final [3] - 65:13, 102:16, 108:8
finally [4] - 8:2, 70:15, 84:25, 108:7
findings [2] - 6:6, 128:16
fine [3] - 35:18, 81:25, 86:1
fines [1] - 113:10
finish [5] - 106:20, 113:3, 125:7, 131:16, 133:15
finished [1] - 6:20
Fire [4] - 46:14, 47:19, 49:9, 49:18
fire [5] - 18:20, 49:12, 49:17, 106:22
fired [2] - 33:15
firm [4] - 53:25, 98:11, 105:9
firms [1] - 98:14
first [33] - 1:5, 4:12, 7:21, 7:23, 8:11, 8:17, 10:20, 19:2, 22:5, 22:17, 25:6, 37:1, 37:20, 81:14, 84:3, 85:7, 85:14, 85:16, 85:19, 94:22, 97:4, 97:21, 98:20, 99:3, 100:6, 107:10, 118:11, 119:13, 120:18, 122:11, 133:25, 134:19, 135:4
firsthand [1] - 99:16
fitting [1] - 106:14
five [13] - 5:1, 5:4, 5:5, 7:2, 7:15, 14:2, 14:5, 14:22, 74:8, 87:9, 96:17, 115:14, 130:20
fix [2] - 104:13, 106:15
fixed [3] - 105:7, 106:23, 107:2
flag [1] - 58:16
floors [1] - 92:14
flow [13] - 62:12, 72:2, 72:3, 72:4, 75:6, 76:15, 81:8, 84:12, 84:21, 94:9, 94:13, 94:25
flows [2] - 71:18, 71:19
flu [1] - 38:10
fluid [1] - 36:1
flume [2] - 84:4, 84:5
focus [1] - 134:19
follow [8] - 65:21, 93:6, 97:18, 113:8, 114:6, 115:9, 127:16, 146:5
follow-up [3] - 93:6, 114:6, 127:16
followed [1] - 49:11
following [3] - 6:3, 87:3, 144:1
follows [9] - 8:16, 31:24, 32:11, 45:4, 53:18, 97:25, 117:3, 127:20, 133:21
foot [1] - 16:2
FOR [1] - 2:13
foregoing [2] - 147:4
foremost [1] - 38:2
forest [3] - 29:21, 29:25, 30:4
forgiveness [1] - 112:5
form [1] - 66:14
formation [1] - 57:23
forming [1] - 84:21
forth [3] - 33:20, 44:9, 54:22
forty [2] - 20:19, 20:22
forum [1] - 133:7
forward [5] - 95:8, 104:19, 105:22, 106:19, 130:15
Foster [1] - 57:5
foundation [1] - 82:22
four [14] - 11:6, 25:13, 76:18, 92:4, 92:6, 92:11, 92:25, 93:1, 99:14, 107:10, 107:18, 120:16, 130:12, 130:20
frame [1] - 109:21
free [1] - 49:20
frequencies [4] - 10:15, 11:1, 11:2, 104:4
frequency [5] - 10:7, 10:9, 18:22, 19:13, 19:16
frequent [1] - 103:19
front [4] - 40:13, 66:23, 77:8, 123:9
frontage [1] - 69:17
frustration [2] - 69:5, 70:2
fuel [9] - 36:5, 37:1, 37:4, 37:8, 37:9, 42:4, 42:6, 48:3, 54:23
full [6] - 11:12, 32:1, 64:15, 82:8, 120:11, 124:7
fully [2] - 99:12, 120:8
furnace [1] - 36:3
fuser [1] - 100:19
Fuss [5] - 32:3, 43:6, 43:11, 44:4, 138:9
future [5] - 6:11, 89:21, 118:12, 119:9, 120:5

G

GAC [12] - 74:16,

74:21, 74:25, 75:1, 77:23, 81:2, 81:11, 81:14, 81:16, 105:15, 105:17, 114:6
GAC's [1] - 81:4
GACs [1] - 81:13
gallons [15] - 50:6, 51:15, 51:20, 52:6, 52:8, 52:9, 71:19, 71:20, 76:8, 76:10, 76:23, 80:6, 80:7, 80:8, 80:9
gals [1] - 45:13
gap [1] - 123:22
gas [12] - 36:4, 36:25, 37:7, 39:2, 42:4, 52:22, 62:19, 62:21, 82:21, 89:6, 101:4, 140:5
gaseous [6] - 36:5, 39:5, 48:12, 50:14, 51:10, 51:12
gasoline [2] - 71:8, 88:21
GE [1] - 116:11
general [11] - 14:2, 45:20, 45:21, 54:24, 56:4, 56:20, 71:1, 83:12, 105:11, 105:15, 122:13
generally [13] - 28:8, 31:8, 56:24, 56:25, 84:12, 88:11, 98:23, 117:9, 118:9, 120:19, 121:12, 122:11, 124:11
generated [3] - 120:9, 120:15, 140:23
generating [1] - 111:20
generation [2] - 119:25, 121:8
generator [2] - 120:6, 124:8
generous [1] - 66:6
gentleman [7] - 19:24, 20:9, 24:16, 24:17, 25:5, 80:1, 143:2
gentlemen [10] - 24:16, 35:1, 37:17, 67:3, 68:19, 79:24, 132:16, 133:5, 143:24, 144:13
given [9] - 6:16, 20:1, 69:12, 104:6, 130:7, 133:2, 139:18, 139:21, 140:7
glossed [1] - 24:9
Gloucester [1] - 128:22
goal [3] - 33:11, 96:9, 96:12
government [2] - 9:11, 49:8
gpd [2] - 83:19, 83:20
grade [1] - 35:19
graduate [1] - 117:14
granted [4] - 5:22, 5:23, 6:2, 140:25
granulated [1] - 85:11
Granule [1] - 74:18
granulize [1] - 85:11
gravel [1] - 56:5
great [5] - 40:8, 68:10, 99:23, 101:12, 104:6
greater [1] - 21:8
ground [17] - 6:3, 30:4, 36:8, 38:25, 40:6, 73:13, 73:21, 73:25, 74:19, 78:15, 78:17, 79:10, 79:14, 79:16, 120:23, 129:11
Group [4] - 45:9, 95:17, 134:1, 134:6
group [1] - 41:17
growth [2] - 119:21
guarantee [8] - 12:8, 22:18, 78:23, 79:18, 105:11, 106:6, 113:22, 114:16
guaranteed [2] - 23:7, 34:21
guaranteeing [2] - 112:1, 114:17
guarantees [6] - 12:10, 13:4, 30:24, 78:19, 78:21, 79:12
guess [6] - 16:16, 50:20, 57:9, 93:18, 115:18, 125:8
guidance [1] - 86:19
guideline [1] - 141:21
guidelines [1] - 59:22
guitar [1] - 29:19
guys [4] - 66:20, 67:2, 94:4, 105:16

H

H-A-N-K-A-R-D [1] - 98:3
H-E-S-S-L-E-R [1] - 8:19
H-E-V-N-E-R [1] - 45:7
half [6] - 22:17, 29:18, 78:13, 83:22, 98:9, 128:5
halfway [1] - 22:25
hand [1] - 147:7
handle [5] - 7:20, 8:2, 47:22, 61:22, 127:2
hankard [1] - 107:4
HANKARD [32] - 97:23, 98:7, 98:20, 99:1, 99:11, 99:22, 103:2, 103:5, 104:21, 105:23, 106:13, 106:21, 107:9, 108:17, 109:4, 109:13, 109:25, 110:17, 110:23, 111:3, 111:11, 111:16, 112:12, 112:19, 114:19, 115:8, 115:17, 115:20, 116:2, 116:11, 116:14, 116:19
Hankard [3] - 98:3, 108:10, 114:5
happy [1] - 44:18
hard [3] - 66:8, 68:2, 133:13
harmful [2] - 137:9, 138:1
Harrisville [11] - 1:13, 73:6, 73:7, 73:10, 73:17, 78:22, 78:25, 79:5, 79:8, 79:19, 93:9
hate [1] - 103:19
hay [4] - 22:9, 22:10, 25:7, 26:8
hazardous [5] - 35:21, 46:9, 48:5, 89:9, 95:15
hazards [2] - 45:23, 119:9
hazmat [1] - 49:17
head [1] - 93:2
health [10] - 32:12, 32:13, 33:6, 41:4, 134:18, 136:17, 136:24, 138:25, 139:6, 141:13
Health [2] - 142:10, 142:16
hear [13] - 2:23, 11:2, 13:25, 14:6, 14:9, 18:1, 18:20, 19:6, 29:15, 53:5, 69:8, 93:8, 110:23
heard [4] - 30:6, 49:22, 86:8, 131:4
hearing [3] - 7:17, 18:24, 147:5
HEARING [2] - 1:5, 1:2
heath [1] - 135:23
heavier [1] - 59:23
heavily [1] - 28:10
heavy [4] - 13:3, 55:14, 102:13, 129:19
held [2] - 67:6, 132:19
help [5] - 13:1, 26:7, 52:20, 87:21, 110:21
helped [1] - 91:2
helpful [2] - 75:20, 94:6
helping [1] - 102:9
helps [1] - 66:8
hereby [1] - 147:3
hereunto [1] - 147:6
Hessler [22] - 7:24, 8:13, 8:19, 13:18, 23:25, 25:6, 27:3, 27:15, 27:20, 27:23, 29:11, 30:15, 98:24, 101:10, 101:16, 102:8, 102:14, 103:1, 105:20, 108:12, 108:23, 114:10
HESSLER [54] - 8:14, 8:22, 12:18, 14:1, 14:13, 14:18, 14:21, 15:3, 15:14, 15:18, 16:1, 16:7, 16:14, 17:1, 17:5, 17:13, 17:16, 17:25, 18:6, 18:12, 18:15, 18:17, 19:1, 19:16, 20:22, 21:4, 21:9, 21:16, 22:2, 23:6, 23:19, 24:7, 24:14, 24:23, 25:2, 25:8, 25:11, 25:17, 25:21, 26:2, 26:9, 26:19, 28:5, 29:3, 29:6, 29:10, 29:23, 30:2, 30:8, 30:19, 30:21, 31:5, 31:13, 31:16
Hessler's [2] - 99:21, 103:21
HEVNER [82] - 45:2, 46:20, 46:25, 47:5, 47:12, 48:1, 48:10, 48:21, 48:23, 49:3, 50:11, 51:2, 51:13, 51:17, 51:22, 52:14, 70:18, 72:18, 73:21, 73:25, 74:3, 76:3, 76:11, 76:14, 76:24, 77:4, 77:10, 78:10, 78:17, 78:24, 79:10, 79:13, 79:21, 80:12, 80:24, 81:4, 81:13, 81:24, 82:12, 83:2, 83:6, 83:18, 83:21, 83:24, 84:7, 84:21, 85:1, 85:10, 85:25, 86:10, 86:12, 87:2, 87:9, 87:13, 87:15, 87:17, 87:25, 88:5, 88:7, 88:11, 91:10, 91:14, 91:24, 92:4, 92:10, 92:23, 93:6, 93:16, 93:21, 93:25, 94:3, 94:7, 94:11, 94:15, 94:20, 94:24, 95:5, 95:11, 95:17, 95:21, 95:25, 96:5
Hevner [8] - 7:25, 8:3, 45:1, 45:7, 45:8, 50:5, 70:17, 93:15
hi [1] - 59:20
High [11] - 1:12, 57:17, 57:23, 122:7, 122:25, 125:12, 125:16, 125:18, 126:4, 126:6, 129:8
high [11] - 9:15, 11:22, 12:21, 25:24, 26:7, 36:18, 40:2, 40:4, 89:8, 89:10, 100:11
higher [8] - 11:6, 19:19, 40:16, 71:20, 76:9, 76:12, 116:18, 116:19
highest [5] - 83:7, 121:15, 121:16, 137:21, 142:11
highlighting [1] - 11:23
highly [1] - 34:5
Highway [1] - 49:25
highway [5] - 61:5, 61:6, 61:7, 61:9, 61:15
hill [1] - 129:17
himself [1] - 2:7
hinders [1] - 123:19
hired [4] - 6:4, 19:25, 24:17, 80:2
historical [1] - 71:20
historically [1] - 84:2
hit [3] - 108:14, 108:15
hold [2] - 55:2
holding [1] - 50:8
holes [1] - 84:4
hone [1] - 136:10
honest [1] - 109:16
hopefully [4] - 4:16, 4:18, 65:16, 97:5
hoping [1] - 7:17
horizontal [2] - 28:7, 123:19
Hospital [1] - 40:19

hour [8] - 52:6, 52:7, 97:16, 118:23, 121:6, 121:13, 121:15
hourly [1] - 37:16
hours [5] - 20:20, 20:22, 37:5, 37:6, 121:18
house [7] - 9:21, 11:6, 15:3, 36:3, 54:24, 92:20, 93:3
House [1] - 107:23
housecleaning [2] - 92:13, 92:15
houses [2] - 9:20, 16:20
huge [3] - 14:22, 23:1, 55:25
human [2] - 22:10, 138:25
hundreds [2] - 34:24, 40:11
hurts [1] - 19:17
hydraulic [4] - 73:9, 73:13, 76:5, 94:5
hydraulically [1] - 71:23
hydrocarbon [1] - 71:12
hydroid [1] - 65:14
hypothetical [1] - 48:8

I

idea [5] - 26:10, 51:16, 66:18, 111:15, 140:11
identified [5] - 63:7, 77:9, 83:8, 121:24, 128:18
identify [3] - 118:23, 135:16, 137:14
illnesses [1] - 47:10
immediate [1] - 128:22
immediately [1] - 92:13
impact [18] - 31:8, 36:16, 36:21, 38:23, 45:18, 47:13, 53:25, 55:5, 55:11, 56:24, 62:23, 73:1, 75:3, 75:5, 117:21, 124:8, 128:10, 138:25
impacting [1] - 73:17
impacts [20] - 33:10, 36:14, 41:5, 42:12, 45:24, 53:23, 54:5, 54:14, 54:15, 62:15, 62:16, 63:1, 63:3, 63:10, 74:16, 76:17, 79:22, 82:18, 88:13, 124:13
impervious [1] - 62:5
implement [3] - 111:8, 135:17, 137:19
implemented [2] - 110:10, 137:22
implied [1] - 79:10
important [11] - 8:25, 11:18, 11:20, 11:24, 12:9, 86:23, 90:20, 93:12, 98:15, 112:20, 133:7
importantly [1] - 12:4
impossible [3] - 19:3, 84:24, 85:1
impracticable [1] - 11:3
impress [1] - 104:14
impressing [1] - 101:23
improper [1] - 85:7
improvement [1] - 126:14
improvements [1] - 55:20
improving [1] - 58:3
impurities [2] - 88:24, 92:19
impurity [1] - 85:23
IN [3] - 1:5, 147:6, 147:13
inactive [1] - 83:15
inaudible [2] - 13:25, 19:7
incentive [2] - 139:21, 139:24
incident [1] - 124:2
include [3] - 13:2, 45:16, 83:14
included [7] - 27:20, 43:23, 46:3, 75:1, 116:17, 119:24, 137:25
includes [5] - 41:16, 46:8, 71:10, 101:24, 108:1
including [3] - 13:6, 13:19, 136:23
inconsistencies [7] - 33:2, 35:4, 35:7, 43:7, 43:12, 124:17, 138:18
inconsistent [1] - 34:1
incorporated [2] - 25:15, 43:25
increase [4] - 14:11, 62:4, 65:6, 137:1
increased [2] - 55:20, 102:17
increases [1] - 14:8
increasing [1] - 62:11
incumbent [1] - 133:8
independent [1] - 98:11
indicate [1] - 105:21
indicated [4] - 20:17, 60:18, 68:21, 105:18
indicates [1] - 123:24
indicative [1] - 119:8
individually [1] - 6:5
indoor [6] - 72:21, 74:4, 74:5, 76:17, 82:18, 82:25
indoors [1] - 21:12
industrial [2] - 98:10, 134:6
industry [8] - 46:19, 46:21, 78:3, 83:12, 103:18, 104:2, 140:7, 140:12
influence [2] - 76:5, 84:15
inform [2] - 57:4, 70:5
information [38] - 3:22, 4:7, 6:15, 33:4, 33:8, 33:22, 35:9, 44:14, 50:22, 55:18, 59:4, 65:20, 65:23, 67:5, 67:8, 67:9, 67:14, 67:16, 68:4, 68:5, 68:10, 68:13, 68:25, 69:8, 70:8, 71:21, 71:25, 72:3, 74:20, 75:19, 79:21, 80:14, 84:11, 94:15, 115:6, 115:13, 120:15, 124:18
Informational [1] - 3:8
informed [4] - 47:19, 119:15, 119:17, 119:22
initialing [1] - 106:23
initiative [2] - 140:5, 141:7
injected [2] - 12:21, 52:19
injection [1] - 84:19
input [1] - 63:13
inside [5] - 52:8, 64:8, 83:14, 100:7, 100:8
insignificant [1] - 33:10
inspection [1] - 51:2
install [1] - 42:25
installation [5] - 23:21, 105:25, 111:10, 114:24
installed [2] - 48:20, 51:8
instance [3] - 55:24, 61:7, 96:2
instances [1] - 9:14
instead [2] - 26:8, 121:10
instruments [2] - 38:13, 38:14
insulate [1] - 109:21
insulating [3] - 109:21, 110:21, 110:25
insulation [1] - 111:17
insurance [1] - 114:17
intake [1] - 100:12
intend [1] - 137:8
intended [1] - 66:8
intends [1] - 6:13
intention [2] - 7:16, 22:22
interaction [4] - 55:6, 123:14, 123:17, 123:20
interactions [1] - 54:14
interconnections [1] - 77:11
interdepartmental [1] - 49:9
interest [1] - 20:2
interested [2] - 115:3, 125:7
interrupt [1] - 73:18
interrupted [1] - 106:18
intersection [13] - 55:6, 59:8, 64:19, 119:17, 125:12, 125:16, 125:21, 126:1, 126:7, 129:16, 129:18, 129:20, 129:22
intersections [5] - 118:17, 119:3, 122:5, 122:9, 124:10
introduce [1] - 127:25
introduced [1] - 64:24
intrusion [4] - 35:14, 82:7, 82:11, 82:15
INVENERGY [2] - 1:7, 1:11
Invenergy [51] - 3:4, 4:13, 5:15, 5:17, 6:7, 6:16, 6:20, 7:8, 10:21, 12:1, 27:2, 30:10, 43:14, 49:16, 49:20, 52:4, 52:11, 57:24, 59:21, 65:8, 65:22, 66:13, 67:13, 68:12, 70:5, 82:9, 87:2, 89:25, 93:19, 93:23, 95:6, 97:1, 98:12, 98:16, 99:18, 101:16, 104:7, 104:15, 104:19, 114:4, 116:12, 117:20, 134:10, 134:21, 134:22, 137:8, 140:13, 140:15, 141:3, 144:11, 145:18
Invenergy's [1] - 104:23
inversion [1] - 107:20
investigated [1] - 107:2
involved [9] - 48:16, 68:14, 98:17, 110:18, 110:19, 117:20, 134:13, 134:15, 134:16
involvement [3] - 128:1, 134:9
IPad [1] - 7:3
iron [1] - 87:15
ironed [1] - 63:6
ISLAND [1] - 1:1
Island [18] - 1:12, 1:13, 32:8, 39:19, 39:24, 40:10, 40:22, 41:20, 41:24, 60:14, 63:5, 63:23, 117:14, 117:15, 128:6, 136:21, 138:17, 140:8
issue [36] - 9:2, 12:18, 27:5, 27:13, 39:20, 44:25, 49:7, 61:20, 67:21, 68:22, 69:10, 70:16, 73:3, 73:16, 76:14, 81:7, 86:22, 86:23, 95:1, 95:20, 97:15, 97:22, 101:10, 101:15, 101:16, 102:4, 103:4, 104:5, 104:18, 111:19, 132:3, 134:20, 143:7
issued [1] - 42:8
issues [21] - 4:6, 4:8, 6:12, 7:23, 7:24, 7:25, 8:1, 53:15, 62:7, 62:20, 69:20, 71:3, 71:17, 72:15, 73:2, 79:4, 85:3, 94:25, 113:10, 125:6, 131:18
item [1] - 110:2
items [1] - 62:1
itself [6] - 34:6, 86:6,

106:3, 111:1, 111:13, 119:25

J

J-A-C-K-S-O-N [1] - 53:21
Jackson [14] - 8:1, 8:3, 53:15, 53:21, 53:22, 56:9, 57:14, 60:9, 61:21, 63:12, 68:17, 68:20, 125:1
JACKSON [31] - 53:16, 55:4, 55:16, 56:4, 56:15, 57:7, 57:12, 58:8, 58:17, 58:23, 59:5, 59:12, 59:19, 60:1, 60:12, 60:15, 60:21, 60:24, 61:10, 61:16, 61:23, 64:13, 64:22, 67:23, 68:23, 88:13, 89:1, 89:7, 89:11, 90:8, 90:14
Jackson's [1] - 117:25
James [2] - 53:15, 53:21
JAMES [1] - 53:16
Jeff [1] - 4:20
jeffery [1] - 2:4
Jeffrey [1] - 2:8
Jim [2] - 53:22, 88:12
job [5] - 12:2, 32:3, 32:23, 35:10, 91:18
John [1] - 30:13
join [1] - 29:16
journey [1] - 122:1
July [6] - 143:25, 144:1, 144:3, 146:7, 147:7, 147:14
jump [1] - 98:24
June [5] - 1:13, 1:15, 67:7, 93:9, 117:24
JUNE [1] - 1:1
jurisdiction [4] - 4:2, 60:13, 94:19, 95:15
jurisdictions [1] - 9:9

K

Karen [1] - 1:12
KAREN [3] - 1:17, 147:3, 147:10
keep [4] - 21:15, 23:6, 141:24, 142:24
keeps [1] - 26:13
key [3] - 90:24, 91:1, 120:21
kilometers [2] - 22:11, 139:4
kind [25] - 9:17, 9:25, 23:15, 28:25, 33:2, 40:18, 42:24, 50:9, 50:19, 50:21, 51:5, 54:24, 56:15, 56:19, 56:21, 57:7, 65:9, 65:11, 65:19, 84:19, 99:25, 101:13, 112:10, 125:20
kinds [2] - 38:16, 65:4
kits [1] - 48:12
knock [1] - 81:14
knowledge [4] - 24:3, 48:21, 50:11, 79:2
known [3] - 5:13, 45:23, 102:12
knows [1] - 67:24
Kravitz [1] - 2:10
KRAVITZ [8] - 1:17, 1:20, 4:20, 8:5, 27:17, 49:6, 50:2, 93:7

L

lack [3] - 67:7, 67:8, 102:22
ladies [8] - 24:16, 67:3, 68:18, 79:24, 132:16, 133:5, 143:23, 144:13
lag [2] - 28:10, 110:1
lager [1] - 29:4
lagged [1] - 23:1
lagging [11] - 13:3, 15:22, 28:10, 102:11, 105:18, 105:19, 105:23, 111:10, 115:12, 115:24
laid [2] - 66:19, 115:12
Lake [9] - 3:5, 29:13, 57:18, 64:18, 64:20, 77:13, 107:22, 123:8, 129:13
land [2] - 5:15, 63:20
Land [1] - 3:4
landscaping [1] - 113:7
lane [1] - 122:13
lang [1] - 111:5
language [2] - 102:17, 104:25
LaPlant [1] - 117:19
large [12] - 12:22, 20:21, 28:17, 32:23, 36:17, 47:22, 56:2, 56:6, 84:21, 102:13, 105:24, 109:23
larger [2] - 40:3, 60:18
last [32] - 2:3, 8:18, 11:10, 13:20, 14:25, 20:6, 20:13, 22:5, 26:15, 29:11, 45:6, 48:25, 51:15, 51:16, 51:20, 52:3, 52:10, 52:21, 53:20, 72:4, 81:21, 86:4, 98:2, 98:9, 117:5, 120:20, 127:5, 127:22, 128:6, 133:23, 137:13
lastly [2] - 104:5, 118:13
late [2] - 17:12, 98:8
laundry [2] - 53:4, 53:7
law [1] - 27:9
lay [2] - 57:15, 62:25
layers [1] - 29:8
lead [2] - 29:7, 134:11
leads [3] - 38:10, 65:7, 134:14
learn [1] - 10:3
least [5] - 21:22, 33:19, 43:21, 76:8, 141:17
leaves [2] - 30:2, 143:9
leaving [1] - 121:12
leery [2] - 12:3, 21:21
left [3] - 102:22, 122:13, 133:14
LEGAL [1] - 1:21
legal [6] - 27:4, 43:16, 70:4, 70:9, 70:15, 133:10
legitimate [2] - 10:22, 107:2
length [1] - 16:3
lengthy [1] - 96:13
leo [1] - 2:4
less [11] - 10:2, 21:17, 31:10, 45:14, 45:15, 46:9, 87:10, 88:1, 93:24, 109:10, 142:14
letter [8] - 2:18, 2:24, 49:13, 49:14, 69:11, 93:9, 136:6
Level [2] - 122:20, 123:5
level [26] - 10:1, 10:16, 11:8, 11:24, 15:5, 16:18, 17:5, 17:21, 18:1, 18:17, 18:18, 19:2, 19:5, 19:7, 19:19, 24:6, 36:8, 81:12, 99:19, 100:1, 122:13, 122:15, 122:21, 124:12, 137:21, 139:3
levels [16] - 11:22, 21:15, 21:20, 38:23, 100:2, 103:9, 103:22, 107:7, 108:1, 109:11, 123:1, 123:2, 136:15, 137:3, 139:5
licensed [3] - 16:23, 117:15, 117:17
lie [1] - 21:6
life [3] - 128:25, 129:4, 131:19
light [1] - 73:14
likelihood [3] - 15:11, 33:13, 33:18
likely [1] - 20:19
limit [17] - 7:2, 7:16, 9:6, 9:14, 9:23, 10:5, 31:10, 103:6, 103:14, 103:18, 103:24, 104:2, 105:13, 105:14, 106:7, 112:19, 127:8
limitations [1] - 63:6
limited [2] - 6:22, 7:1
limits [23] - 9:3, 9:10, 9:11, 10:7, 10:8, 10:9, 10:11, 10:12, 10:16, 10:23, 11:5, 19:17, 37:6, 37:15, 97:11, 103:16, 104:20, 105:1, 105:16, 109:1, 126:19, 127:12, 135:6
line [8] - 34:1, 34:2, 34:3, 34:4, 67:14, 78:25, 85:15, 106:20
lined [1] - 22:1
lines [3] - 27:18, 77:4, 137:24
liquidated [1] - 23:9
list [6] - 3:24, 41:8, 89:22, 100:4, 101:8, 132:6
listed [4] - 6:25, 27:24, 41:10, 108:3
listen [3] - 110:22, 131:24, 132:1
listening [1] - 103:7
live [1] - 30:23
lived [1] - 29:14
lives [1] - 131:22
living [1] - 142:3
LLC [3] - 1:7, 1:11, 1:21
LLC's [1] - 3:5
load [4] - 11:12, 101:9, 127:2, 127:3
loaded [2] - 29:7, 106:1
loads [5] - 22:9, 58:25, 59:14, 59:15, 127:6
local [7] - 9:11, 36:13, 39:18, 41:6, 49:8, 54:11, 57:10
locally [4] - 33:10, 36:22, 38:23, 40:23
location [7] - 62:23, 75:20, 86:6, 126:15, 127:9, 142:9, 144:3
locations [3] - 22:1, 118:21, 142:8
logarithmic [2] - 14:13, 18:9
look [22] - 3:12, 17:10, 45:10, 51:24, 54:2, 55:16, 58:23, 62:1, 63:2, 70:1, 72:21, 85:2, 91:3, 93:2, 112:11, 118:13, 123:16, 126:18, 135:4, 135:8, 135:14, 137:12
looked [21] - 13:21, 54:2, 54:7, 56:10, 58:21, 65:5, 73:2, 88:13, 89:12, 91:8, 118:25, 119:9, 119:12, 120:16, 121:7, 122:5, 122:17, 123:7, 123:13, 127:11, 128:12
looking [20] - 33:17, 35:20, 42:4, 51:7, 52:5, 54:7, 57:20, 63:8, 80:14, 84:23, 88:11, 89:14, 91:20, 94:24, 118:14, 123:17, 125:12, 125:18, 126:5, 135:19
looks [3] - 80:7, 97:6, 129:11
lose [1] - 83:11
lost [1] - 67:15
loud [9] - 14:19, 15:19, 16:9, 22:23, 30:7, 30:8, 100:21, 108:20, 110:6
louder [3] - 10:4, 14:7, 14:17
low [37] - 9:10, 9:11, 10:12, 10:13, 10:16, 10:19, 11:2, 12:25, 18:23, 19:16, 19:18, 21:12, 22:3, 22:6,

22:16, 22:22, 39:1, 72:2, 72:4, 73:13, 75:4, 75:5, 100:17, 100:21, 100:22, 101:20, 101:21, 103:14, 103:19, 104:4, 109:15, 114:9, 114:10, 120:6, 120:12, 124:7
lower [5] - 9:16, 10:15, 21:16, 40:16, 108:1
lowest [2] - 43:1, 101:22
Lupis [1] - 2:6
LUPIS [2] - 126:16, 126:22

M

ma'am [1] - 60:12
machine [1] - 87:23
magnesium [1] - 87:15
magnitude [1] - 59:14
Maguire [2] - 53:22, 125:1
mail [1] - 1:15
main [6] - 12:18, 28:4, 54:9, 55:17, 61:7, 63:9
Main [11] - 59:3, 122:6, 122:7, 122:12, 122:24, 123:23, 123:25, 129:16, 129:17
maintain [8] - 11:19, 11:24, 12:8, 23:5, 61:6, 61:9, 82:11, 123:1
maintained [5] - 25:1, 31:10, 60:4, 122:12, 123:1
maintaining [4] - 12:5, 24:5, 45:24, 137:3
maintenance [2] - 41:24, 128:22
Major [1] - 3:3
major [9] - 32:9, 42:24, 62:16, 90:10, 98:10, 134:22, 134:23, 135:2, 141:1
majority [4] - 73:8, 75:8, 92:7, 125:22
makers [1] - 102:24
management [3] - 45:16, 46:7, 47:12
Management [3] - 32:9, 46:5, 138:18
Manager [1] - 2:1
MANAGER [12] - 46:20, 46:25, 47:5, 47:12, 48:1, 48:10, 48:21, 48:23, 49:3, 50:11, 55:4, 55:16
manager [2] - 117:11, 134:12
manifold [1] - 28:9
mantel [1] - 26:13
manual [1] - 38:13
manufactured [1] - 114:4
manufacturer [12] - 15:8, 22:19, 34:9, 34:10, 34:21, 105:10, 112:14, 114:16, 114:23, 116:10, 116:12
map [1] - 75:23
Map [4] - 3:6, 3:7
Marc [1] - 2:6
mark [1] - 44:23
marketed [1] - 88:19
Marshal [1] - 49:9
mass [3] - 29:7, 106:2
Massachusetts [1] - 117:16
master [13] - 8:2, 61:21, 66:6, 66:7, 66:21, 66:25, 67:1, 68:2, 68:3, 68:13, 69:6, 97:15
Master [1] - 3:7
material [7] - 28:25, 29:7, 39:11, 50:25, 96:3, 102:13, 120:19
materials [8] - 32:6, 32:20, 33:21, 39:20, 54:8, 54:23, 95:15, 111:6
math [1] - 103:23
matter [4] - 1:11, 27:21, 30:14, 36:4
matters [2] - 5:14, 17:18
Maureen [7] - 116:25, 117:6, 117:7, 118:5, 125:5, 125:8, 125:11
MAUREEN [1] - 117:1
max [1] - 16:25
maximum [4] - 7:2, 11:12, 11:13, 14:25
MBTE [6] - 70:16, 72:12, 78:8, 84:5, 86:11, 88:20
McDonough [1] - 2:15
MCELROY [15] - 5:7, 8:8, 26:24, 27:1, 31:19, 43:15, 43:24, 44:24, 53:14, 61:20, 70:3, 70:14, 144:8, 144:14, 145:2
McElroy [5] - 2:11, 4:22, 5:9, 67:15, 96:14
McGuire [4] - 45:9, 88:11, 117:25, 124:15
McMahon [4] - 116:25, 117:11, 125:5, 128:4
McMann [1] - 54:1
mean [14] - 16:4, 17:9, 20:8, 40:17, 41:15, 51:15, 59:9, 60:2, 61:10, 92:15, 103:25, 112:4, 112:10
meaning [1] - 122:22
means [4] - 16:17, 32:19, 122:22, 123:20
measure [7] - 17:21, 38:22, 105:4, 108:18, 115:1, 130:5, 130:10
measured [3] - 29:12, 105:10, 109:14
measurements [1] - 106:23
measures [11] - 13:2, 15:21, 24:12, 27:24, 50:23, 51:8, 62:5, 100:3, 100:5, 105:9, 122:4
measuring [5] - 16:2, 16:12, 103:8, 115:4, 122:7
meatier [1] - 98:24
mechanical [3] - 75:14, 80:21, 134:5
mechanism [1] - 113:24
mechanisms [1] - 112:23
mediate [1] - 90:21
meet [38] - 5:20, 10:25, 11:3, 12:11, 12:16, 14:25, 19:2, 19:14, 19:15, 23:18, 27:9, 27:10, 30:17, 33:21, 39:16, 43:1, 64:2, 100:1, 101:18, 102:9, 104:9, 104:12, 104:13, 105:15, 106:7, 107:9, 112:16, 112:19, 113:13, 115:2, 115:16, 115:17, 123:17, 123:18, 124:3, 124:4, 141:3
meeting [23] - 1:5, 2:3, 39:9, 52:3, 67:6, 86:4, 91:16, 102:6, 104:2, 114:15, 131:10, 131:15, 132:12, 132:17, 132:18, 132:19, 132:20, 132:23, 132:25, 143:25, 144:2, 144:20
Meeting [3] - 1:24, 3:8, 147:13
meetings [3] - 1:8, 90:19, 91:14
meets [8] - 16:21, 38:1, 39:22, 39:23, 41:2, 41:3, 106:5, 114:25
member [1] - 66:16
MEMBER [172] - 1:10, 2:14, 13:17, 14:10, 14:15, 14:20, 14:24, 15:7, 15:16, 15:24, 16:4, 16:8, 16:21, 17:2, 17:8, 17:14, 17:23, 18:3, 18:10, 18:13, 18:16, 18:21, 19:9, 19:20, 19:23, 20:4, 20:7, 20:14, 20:15, 20:16, 20:25, 21:7, 21:10, 21:25, 23:4, 23:12, 23:14, 23:23, 29:2, 29:5, 29:9, 29:11, 29:25, 30:6, 35:2, 35:12, 35:18, 39:8, 39:13, 39:17, 39:22, 40:1, 40:5, 40:15, 40:25, 41:7, 41:14, 41:19, 42:2, 43:5, 43:10, 47:2, 47:7, 47:17, 47:18, 48:8, 48:19, 48:22, 48:25, 50:13, 51:7, 52:12, 52:17, 52:25, 53:3, 53:6, 53:10, 56:9, 56:25, 57:3, 57:11, 58:14, 58:20, 59:2, 59:6, 59:16, 61:3, 61:14, 61:18, 63:12, 64:17, 65:1, 65:19, 66:2, 67:3, 68:15, 77:17, 78:7, 78:15, 78:19, 79:7, 79:12, 79:18, 80:4, 80:5, 80:22, 81:2, 81:10, 81:22, 86:22, 87:8, 87:11, 87:14, 87:16, 87:21, 88:2, 88:6, 88:9, 88:25, 89:4, 89:9, 90:6, 90:10, 90:18, 91:12, 91:17, 92:11, 93:3, 96:7, 96:20, 111:23, 112:18, 112:20, 113:2, 113:4, 113:15, 113:25, 114:11, 114:14, 115:5, 115:15, 115:18, 115:21, 116:5, 116:9, 116:13, 116:15, 116:23, 126:16, 126:22, 132:9, 139:12, 139:25, 140:15, 141:2, 141:13, 141:16, 141:23, 142:3, 142:16, 142:19, 142:22, 142:25, 143:5, 145:4, 145:7, 145:11, 145:15, 145:19, 145:24, 146:2, 146:11
Member [6] - 2:5, 2:6, 2:6, 2:7, 2:7, 2:8
members [3] - 20:2, 30:12, 44:13
MEMBERS [1] - 2:3
memorandum [1] - 49:8
men [2] - 54:6, 54:10
mention [4] - 4:21, 58:2, 102:1, 103:16
mentioned [10] - 8:23, 15:8, 19:18, 22:5, 26:5, 27:19, 49:7, 101:20, 123:9
met [7] - 10:24, 11:8, 43:15, 76:6, 104:20, 106:11, 121:18
metal [1] - 135:1
method [2] - 19:3, 28:23
methyl [1] - 71:7
Michael [5] - 2:6, 2:11, 27:19, 98:3, 134:1
MICHAEL [2] - 97:23, 133:19
microphone [1] - 67:19
mid [3] - 38:9, 81:17, 81:18
middle [4] - 56:3, 61:8, 99:15, 120:21
might [21] - 14:23, 15:5, 16:23, 44:12, 46:13, 47:10, 66:19, 68:1, 69:10, 74:8,

74:9, 81:5, 87:4, 96:15, 97:13, 101:2, 102:12, 112:15, 139:7, 145:24
migrate [1] - 84:16
migration [2] - 82:21, 82:25
Mike [4] - 2:8, 3:10, 5:6, 5:8
mike [5] - 55:1, 60:8, 133:18, 133:24, 134:1
mile [1] - 29:18
miles [1] - 40:11
mill [1] - 100:22
million [5] - 39:22, 39:23, 51:19, 52:8, 90:23
millions [1] - 90:22
mind [2] - 93:7, 141:24
mineral [1] - 105:25
minerals [1] - 88:23
minimal [2] - 31:8, 88:18
minimizing [1] - 46:1
minute [8] - 7:15, 76:10, 80:7, 80:8, 96:17, 96:19, 143:20, 144:22
minutes [14] - 1:7, 5:4, 5:5, 7:2, 20:18, 20:19, 20:22, 21:2, 21:3, 21:4, 21:8, 96:24, 133:14, 143:15
missing [1] - 30:23
mistake [1] - 22:16
mitigate [3] - 26:17, 27:25, 54:17
mitigated [1] - 111:13
mitigation [9] - 63:6, 63:10, 65:7, 101:8, 105:2, 106:4, 106:14, 108:4, 109:11
mix [1] - 37:1
mobilization [1] - 120:18
model [24] - 12:4, 23:15, 23:16, 32:11, 33:6, 47:13, 55:7, 58:6, 74:13, 93:11, 99:22, 107:11, 107:13, 107:16, 107:18, 107:19, 112:13, 115:9, 116:2, 134:17, 135:21, 139:2, 142:8, 142:12
modeled [5] - 54:13, 74:10, 76:20, 79:14, 142:12
modeler [1] - 79:17
modeling [19] - 32:14, 34:3, 36:15, 42:11, 44:14, 54:13, 73:25, 78:16, 78:17, 79:14, 101:12, 108:14, 112:2, 113:18, 125:2, 136:20, 136:25, 137:5
models [2] - 56:19, 107:14
modes [2] - 11:20, 31:11
modified [1] - 139:20
moment [4] - 33:23, 69:18, 101:19, 102:14
MONDAY [1] - 1:1
Monday [1] - 144:1
monetizing [1] - 139:24
money [2] - 87:23, 144:9
Monica [4] - 90:19, 95:20, 96:8, 96:10
monitor [1] - 91:9
monitored [2] - 38:2, 38:18
monitors [1] - 38:11
monoxide [2] - 36:9, 138:7
month [1] - 143:13
months [8] - 32:21, 33:19, 37:20, 63:15, 76:1, 76:18, 76:24, 82:24
moon [1] - 111:14
moot [1] - 28:24
moping [1] - 92:14
morning [4] - 11:14, 118:23, 122:25, 138:10
most [25] - 6:8, 9:9, 9:14, 11:11, 13:18, 14:6, 16:18, 40:12, 54:7, 59:18, 66:24, 73:21, 73:22, 83:18, 92:16, 98:15, 102:24, 108:1, 121:2, 124:9, 135:16, 135:21, 136:16, 137:18
mostly [1] - 41:16
motion [10] - 1:9, 1:13, 1:14, 96:17, 96:18, 143:5, 143:25, 144:2, 144:7, 146:9
MOTION [2] - 96:22, 146:14
mounted [1] - 109:20
mounting [4] - 109:21, 110:25, 111:14
move [1] - 40:20
movement [2] - 122:20, 124:12
moving [5] - 110:14, 110:15, 118:16, 126:24
MR [245] - 2:18, 2:22, 8:22, 12:18, 14:1, 14:13, 14:18, 14:21, 15:3, 15:14, 15:18, 16:1, 16:7, 16:14, 17:1, 17:5, 17:13, 17:16, 17:25, 18:6, 18:12, 18:15, 18:17, 19:1, 19:16, 20:22, 21:4, 21:9, 21:16, 22:2, 23:6, 23:19, 24:7, 24:14, 24:23, 25:2, 25:8, 25:11, 25:17, 25:21, 26:2, 26:9, 26:19, 28:5, 29:3, 29:6, 29:10, 29:23, 30:2, 30:8, 30:19, 30:21, 31:5, 31:13, 31:16, 33:24, 34:18, 34:23, 35:4, 35:8, 35:16, 35:24, 37:5, 37:15, 37:23, 38:6, 38:9, 38:20, 39:1, 39:5, 39:7, 39:11, 39:15, 39:19, 39:25, 40:4, 40:8, 40:24, 41:2, 41:12, 41:16, 41:21, 42:7, 42:15, 42:22, 44:4, 44:11, 51:2, 51:13, 51:17, 51:22, 52:14, 52:21, 53:2, 53:5, 53:8, 56:4, 56:15, 57:7, 57:12, 58:8, 58:17, 58:23, 59:5, 59:12, 59:19, 60:1, 60:12, 60:15, 60:21, 60:24, 61:10, 61:16, 61:23, 64:13, 64:22, 67:23, 68:23, 70:18, 72:18, 73:21, 73:25, 74:3, 76:3, 76:11, 76:14, 76:24, 77:4, 77:10, 78:10, 78:17, 78:24, 79:10, 79:13, 79:21, 80:12, 80:24, 81:4, 81:13, 81:24, 82:12, 83:2, 83:6, 83:18, 83:21, 83:24, 84:7, 84:21, 85:1, 85:10, 85:25, 86:10, 86:12, 87:2, 87:9, 87:13, 87:15, 87:17, 87:25, 88:5, 88:7, 88:11, 88:13, 89:1, 89:7, 89:11, 90:8, 90:14, 91:10, 91:14, 91:24, 92:4, 92:10, 92:23, 93:6, 93:16, 93:21, 93:25, 94:3, 94:7, 94:11, 94:15, 94:20, 94:24, 95:5, 95:11, 95:17, 95:21, 95:25, 96:5, 98:7, 98:20, 99:1, 99:11, 99:22, 103:2, 103:5, 104:21, 105:23, 106:13, 106:21, 107:9, 108:17, 109:4, 109:13, 109:25, 110:17, 110:23, 111:3, 111:11, 111:16, 112:12, 112:19, 114:19, 115:8, 115:17, 115:20, 116:2, 116:11, 116:14, 116:19, 128:3, 128:18, 130:3, 134:4, 134:11, 134:22, 135:2, 136:9, 136:14, 137:11, 138:4, 138:11, 138:14, 139:2, 139:15, 140:4, 140:17, 141:5, 141:15, 141:21, 141:24, 142:8, 142:18, 142:21
MS [15] - 98:17, 107:4, 117:11, 117:21, 118:1, 118:4, 118:8, 124:19, 124:24, 125:3, 125:22, 126:10, 126:14, 126:21, 127:7
MTBE [7] - 8:2, 71:7, 87:6, 89:5, 89:10, 89:12, 89:20
MTBE's [1] - 89:2
muffler [1] - 100:24
municipalities [3] - 57:11, 57:13, 77:11
municipality [2] - 57:4, 114:7
music [2] - 29:15, 30:6
must [3] - 27:8, 30:6, 100:13
mutual [1] - 65:11
MY [1] - 147:13

N

name [15] - 5:8, 8:18, 30:12, 32:1, 41:13, 45:6, 53:20, 98:1, 98:2, 117:5, 127:21, 127:22, 128:3, 133:23
named [1] - 53:25
names [1] - 5:1
napkin [1] - 75:23
narrative [1] - 35:11
narrow [1] - 59:9
National [1] - 136:22
national [2] - 41:9, 136:15
natural [3] - 36:4, 42:4, 103:10
naturally [1] - 42:21
nature [4] - 32:22, 71:3, 74:5, 92:21
near [1] - 28:13
nearest [3] - 9:21, 15:3, 31:12
necessarily [1] - 98:15
necessary [3] - 82:11, 104:4, 106:12
need [30] - 9:20, 10:22, 12:16, 20:25, 28:12, 33:8, 46:12, 49:5, 50:19, 51:7, 56:7, 58:15, 60:5, 60:19, 63:25, 74:15, 75:16, 80:17, 80:19, 80:20, 89:9, 96:17, 100:3, 106:17, 107:14, 112:9, 115:13, 128:22, 141:4, 143:8
needed [10] - 5:22, 17:18, 21:24, 34:7, 60:17, 60:20, 77:5, 106:4, 106:11, 119:23
needs [9] - 9:15, 12:11, 37:3, 64:3, 68:22, 74:13, 80:25, 111:18, 112:7
neglected [1] - 77:21
negligible [2] - 13:11, 54:20
neighborhoods [1] - 127:4
network [3] - 118:15, 121:25, 122:2
never [11] - 21:19,

23:15, 23:22, 25:2, 60:3, 79:1, 80:20, 105:10, 108:25, 131:23, 133:7
nevertheless [1] - 16:12
New [2] - 34:25, 124:3
new [15] - 3:3, 4:9, 16:17, 17:21, 18:1, 18:7, 19:1, 37:19, 59:22, 59:24, 59:25, 63:24, 136:17, 143:13
next [20] - 1:7, 1:14, 3:3, 7:24, 7:25, 8:1, 15:4, 22:13, 31:20, 44:25, 53:14, 61:20, 85:13, 91:7, 103:16, 104:23, 116:24, 121:9, 137:24
nicely [1] - 85:24
Nicole [1] - 2:15
Nieland [1] - 30:13
night [7] - 9:4, 11:15, 17:12, 29:15, 29:17, 99:15, 146:15
nighttime [2] - 31:9, 107:20
nine [2] - 10:9, 140:5
nitric [1] - 52:15
nitrogen [7] - 36:6, 41:10, 41:12, 41:14, 41:16, 41:17, 52:22
NO [1] - 41:17
nobody [4] - 22:2, 22:3, 78:21, 78:22
Noise [3] - 5:17, 5:25, 9:1
noise [88] - 2:20, 3:25, 7:23, 9:3, 9:9, 9:11, 11:10, 11:11, 11:12, 11:13, 12:2, 12:25, 13:10, 13:20, 13:22, 15:23, 16:13, 16:15, 17:2, 17:3, 17:10, 17:11, 17:15, 18:14, 19:21, 21:12, 21:15, 21:16, 21:19, 22:3, 22:4, 22:6, 22:22, 25:25, 26:1, 26:7, 28:11, 29:12, 29:20, 29:21, 30:1, 30:23, 31:2, 31:8, 31:10, 32:4, 68:6, 97:4, 97:14, 97:22, 98:10, 99:2, 99:3, 99:5, 99:7, 99:10, 99:15, 100:1, 100:3, 100:4, 100:18, 100:21, 100:23, 101:20, 101:21, 101:22, 102:18, 102:24, 103:4, 103:5, 103:19, 104:19, 105:1, 105:5, 105:15, 106:3, 106:14, 107:7, 107:16, 109:1, 109:24, 110:6, 111:13, 111:20, 111:24, 115:8, 115:24
noisy [8] - 11:16, 12:23, 22:8, 28:21, 28:22, 108:15, 108:25
non [11] - 31:11, 78:4, 78:12, 81:12, 86:15, 87:6, 87:9, 87:10, 90:2, 90:7, 109:23
noncontributory [1] - 18:18
none [2] - 40:10, 77:24
Noonan [2] - 2:15, 30:13
NOONAN [95] - 30:11, 30:20, 30:25, 31:6, 31:14, 31:17, 44:2, 44:7, 44:12, 44:22, 53:12, 60:9, 60:13, 60:16, 60:23, 60:25, 67:20, 67:24, 68:16, 68:20, 68:24, 93:15, 93:17, 93:22, 94:1, 94:4, 94:8, 94:12, 94:16, 94:21, 95:1, 95:6, 95:13, 95:19, 95:22, 96:1, 96:6, 97:3, 97:12, 97:21, 98:4, 98:17, 98:22, 99:8, 99:17, 102:25, 103:3, 104:18, 105:17, 106:9, 106:18, 107:4, 108:10, 112:23, 113:3, 113:5, 113:17, 114:5, 114:13, 116:8, 116:24, 117:7, 117:19, 117:23, 118:2, 118:5, 124:14, 124:22, 124:25, 125:4, 127:16, 127:24, 128:16, 130:1, 130:13, 130:18, 130:24, 131:8, 133:15, 133:18, 133:25, 134:8, 134:19, 134:25, 136:6, 136:10, 137:6, 137:24, 138:8, 138:12, 138:22, 139:7, 142:24, 143:3, 143:12
norm [1] - 10:13
normal [8] - 11:17, 13:9, 31:11, 44:8, 46:19, 52:10, 61:3, 69:23
normally [8] - 3:22, 28:14, 30:22, 62:10, 68:25, 69:25, 130:7, 130:11
north [3] - 84:11, 128:14, 129:10
northbound [2] - 129:11, 129:19
Northeast [1] - 40:13
Northeastern [1] - 117:14
northern [1] - 140:6
Notary [2] - 1:12, 147:3
NOTARY [1] - 147:10
noted [1] - 72:5
nothing [6] - 21:23, 60:25, 64:6, 69:18, 89:5, 113:21
notice [4] - 14:23, 18:4, 62:8, 131:5
noticed [1] - 58:4
notification [1] - 48:13
NOx [11] - 36:6, 36:7, 41:15, 41:16, 41:18, 46:12, 49:4, 49:5, 138:6, 140:20, 141:5
number [24] - 9:8, 9:13, 9:15, 9:16, 9:17, 9:18, 9:19, 9:23, 10:10, 14:11, 14:25, 19:8, 37:6, 48:16, 63:17, 79:25, 80:1, 101:2, 112:15, 120:6, 121:5, 124:16, 140:9, 140:10
numbers [8] - 21:22, 22:20, 34:9, 34:23, 80:13, 94:5, 103:20, 123:5
numerous [3] - 33:1, 42:23, 44:5

O

o'clock [1] - 144:3
O'Neil's [1] - 138:9
O'Neill [4] - 32:3, 43:6, 43:11, 44:4
oath [1] - 24:13
obligation [3] - 27:14, 105:3, 115:2
obtained [1] - 119:1
obvious [1] - 138:6
occupants [1] - 10:14
occupied [1] - 120:8
occur [4] - 46:2, 116:20, 122:19, 137:2
occurring [1] - 71:12
occurs [1] - 11:13
ocean [1] - 126:24
octave [8] - 10:8, 10:11, 10:12, 10:23, 18:23, 19:2, 103:16, 104:4
OF [3] - 1:1, 1:2, 2:3
OFF [3] - 143:6, 143:17, 143:22
offer [1] - 43:20
offered [2] - 43:16, 49:19
offset [1] - 141:7
offsets [2] - 140:23, 140:24
often [3] - 11:16, 109:8, 124:3
Ohio [1] - 40:13
oil [7] - 33:15, 36:25, 37:7, 37:8, 48:3, 54:23
omissions [1] - 45:12
on-call [1] - 45:9
once [7] - 7:6, 33:8, 70:24, 83:5, 92:14, 109:11, 116:20
one [90] - 5:14, 9:1, 9:24, 14:4, 16:2, 18:4, 18:10, 21:19, 23:2, 23:12, 23:22, 24:1, 24:2, 24:15, 26:15, 27:16, 28:4, 29:15, 35:2, 35:20, 42:3, 42:17, 48:25, 51:14, 53:22, 56:21, 57:1, 57:3, 61:1, 62:15, 62:16, 63:17, 63:19, 64:7, 67:20, 68:4, 69:17, 69:20, 70:3, 71:3, 74:23, 74:24, 74:25, 76:14, 77:4, 77:5, 77:21, 79:25, 80:20, 85:15, 85:16, 85:18, 85:19, 87:14, 90:10, 91:19, 91:20, 91:21, 93:7, 95:8, 97:16, 98:18, 99:3, 99:17, 101:6, 101:7, 104:21, 108:13, 108:25, 113:9, 114:25, 116:4, 119:21, 120:22, 120:23, 121:6, 124:11, 129:16, 131:17, 132:19, 133:1, 140:1, 141:6, 141:7, 141:19, 142:1, 142:4, 144:22
One [2] - 2:16, 98:20
onerous [1] - 10:15
ones [1] - 120:21
online [10] - 72:23, 78:2, 78:6, 78:25, 83:11, 85:14, 86:13, 86:14, 86:16, 87:25
onsite [1] - 64:25
Open [1] - 1:24
open [3] - 4:13, 59:7, 132:17
opened [1] - 91:9
opening [1] - 100:11
operate [5] - 51:25, 72:24, 74:24, 75:16, 82:3
operated [2] - 72:22, 79:2
operating [5] - 10:18, 11:20, 27:7, 31:11, 137:2
operation [15] - 5:18, 6:1, 11:17, 13:9, 27:9, 37:6, 45:17, 51:16, 52:10, 57:22, 59:24, 72:5, 101:9, 108:9, 109:1
operations [6] - 54:4, 54:20, 55:10, 61:3, 117:17, 118:13
opinion [17] - 3:16, 3:20, 5:14, 6:12, 9:12, 20:10, 20:12, 23:4, 24:4, 27:6, 31:6, 40:15, 43:23, 70:8, 86:23, 107:6
opinions [1] - 111:25
opportunity [9] - 6:16, 6:21, 27:2, 65:17, 69:3, 69:10, 94:10, 124:14, 133:2
opposed [4] - 75:1, 75:9, 96:23, 144:5
Opposed [1] - 146:13
opposite [4] - 29:22, 29:23, 64:11, 127:1
option [4] - 70:5, 70:9, 70:15, 79:15

options [1] - 120:9
order [16] - 1:5, 6:25, 27:25, 42:8, 71:4, 71:23, 77:3, 91:7, 99:4, 125:9, 131:7, 132:17, 132:24, 137:16, 141:3, 143:9
ordered [1] - 5:13
ordinance [20] - 3:25, 9:14, 9:18, 10:6, 10:8, 10:15, 11:5, 19:9, 19:11, 19:12, 19:17, 31:10, 99:10, 99:13, 99:19, 114:10, 114:11, 114:14, 116:21, 116:22
Ordinance [10] - 5:18, 5:21, 5:25, 9:1, 9:3, 9:7, 112:24, 113:9, 113:12, 114:13
ordinances [1] - 10:14
organic [1] - 36:7
original [2] - 88:14, 89:13
originates [1] - 40:10
originating [1] - 57:6
osmosis [6] - 88:25, 89:4, 91:22, 92:1, 92:9, 92:18
ourselves [1] - 32:24
outcome [1] - 47:8
outline [1] - 105:2
outside [3] - 22:19, 22:21, 28:10
overall [4] - 9:9, 10:10, 31:9, 32:5
overkill [1] - 13:12
overlooked [1] - 27:22
oversees [1] - 67:22
oversized [8] - 55:23, 58:15, 58:19, 58:25, 59:6, 59:10, 59:14, 59:15
overview [1] - 71:1
overweight [2] - 58:15, 58:19
overwhelming [1] - 102:1
own [3] - 92:17, 98:11, 145:8
owned [2] - 60:3
owner [2] - 69:13, 107:3
oxidation [1] - 37:10
oxide [3] - 41:17, 52:15, 52:22
oxides [1] - 36:6
ozone [1] - 36:8

P

p.m [8] - 1:13, 7:17, 118:19, 118:24, 120:13, 121:13, 122:14, 123:1
package [1] - 141:18
Page [2] - 31:7, 124:16
page [3] - 41:8, 92:6, 101:17
paid [3] - 24:8, 132:24, 145:20
paperwork [1] - 34:10
part [28] - 10:6, 38:21, 43:22, 45:8, 47:15, 50:22, 52:14, 55:14, 56:16, 58:4, 64:22, 72:8, 73:23, 77:14, 77:22, 78:13, 82:12, 87:20, 90:12, 91:15, 92:3, 92:12, 99:8, 105:3, 110:18, 116:2, 141:16, 142:19
particular [3] - 46:24, 111:24, 143:11
particularly [7] - 10:15, 11:21, 115:3, 122:4, 127:11, 128:10, 129:10
particulate [2] - 38:25, 39:1
Partington [1] - 2:4
PARTINGTON [117] - 1:4, 1:11, 1:14, 1:19, 1:22, 2:16, 2:20, 2:23, 3:2, 8:12, 8:21, 12:15, 13:16, 19:22, 19:24, 20:8, 23:13, 23:24, 24:15, 25:4, 26:15, 26:22, 26:25, 27:15, 27:23, 28:25, 30:9, 31:21, 33:22, 34:14, 34:22, 35:1, 36:24, 37:13, 37:17, 42:17, 43:3, 43:9, 43:21, 43:25, 44:20, 44:23, 46:17, 46:23, 47:1, 49:23, 53:11, 53:13, 55:1, 55:12, 55:22, 60:7, 61:1, 61:19, 66:4, 68:18, 69:20, 70:10, 73:18, 73:23, 74:2, 75:22, 76:10, 76:13, 76:22, 77:2, 77:7, 77:16, 77:20, 79:24, 83:3, 83:16, 96:14, 96:21, 96:23, 97:1, 108:12, 108:23, 109:11, 109:17, 116:6, 125:9, 127:15, 130:16, 130:22, 131:5, 131:13, 131:17, 131:20, 131:23, 132:10, 132:13, 132:16, 132:21, 133:4, 133:17, 139:11, 142:23, 143:1, 143:7, 143:16, 143:18, 143:23, 144:5, 144:13, 144:22, 144:24, 145:3, 145:6, 145:10, 145:12, 145:17, 145:22, 145:25, 146:3, 146:12, 146:15
partners [1] - 116:12
parts [17] - 28:9, 72:13, 72:14, 77:18, 78:8, 87:9, 87:10, 88:3, 88:10, 88:15, 89:13, 89:15, 89:24, 90:3, 92:3
party [3] - 29:16, 32:25, 112:1
Pascoag [29] - 46:14, 47:19, 49:6, 49:9, 49:18, 50:3, 54:14, 54:18, 56:3, 59:3, 70:21, 71:4, 73:8, 73:11, 79:23, 84:8, 90:11, 91:5, 94:17, 94:18, 94:20, 94:22, 122:5, 122:7, 122:12, 122:24, 128:23, 129:17
pass [4] - 4:21, 88:12, 97:9, 129:8
PASSED [3] - 96:22, 144:7, 146:14
passed [1] - 32:7
past [1] - 9:25
pathway [3] - 82:16, 82:21, 82:24
patience [1] - 24:1
patterns [2] - 119:14, 119:19
PAUSE [1] - 144:23
paved [1] - 59:8
pavement [12] - 125:6, 127:11, 128:8, 128:13, 128:19, 128:24, 128:25, 129:3, 129:12, 129:19, 129:21, 130:2
peak [11] - 118:23, 120:9, 120:12, 120:13, 121:13, 121:18, 122:14, 122:19, 123:5
peer [1] - 122:14
people [23] - 4:23, 4:25, 5:8, 8:6, 10:2, 10:3, 11:11, 14:6, 22:11, 36:16, 40:20, 62:21, 65:3, 97:7, 112:8, 113:7, 125:6, 133:2, 139:19, 139:20, 142:3, 145:7
people's [1] - 17:12
per [21] - 52:6, 71:19, 72:13, 72:14, 77:18, 78:8, 78:14, 80:6, 80:7, 80:8, 87:9, 87:10, 88:3, 88:4, 88:15, 89:13, 89:15, 89:25, 90:3, 121:2
percent [13] - 30:22, 45:13, 45:14, 46:5, 46:9, 46:14, 46:17, 46:21, 47:2, 50:7, 115:13, 115:15, 119:21
perceptible [1] - 14:5
perfect [3] - 47:8, 79:16
perfectly [1] - 109:16
performance [2] - 100:12, 111:5
performed [3] - 42:11, 53:25, 133:1
perhaps [6] - 27:19, 102:8, 105:14, 107:20, 114:24, 115:13
perimeter [1] - 38:17
period [4] - 51:23, 72:18, 73:1, 74:6
periods [2] - 37:21, 123:4
permission [3] - 69:12, 69:14, 112:5
Permit [1] - 134:17
permit [26] - 5:22, 27:7, 32:6, 32:8, 32:10, 32:15, 32:17, 33:7, 33:11, 34:5, 39:21, 42:8, 44:8, 60:19, 60:21, 63:4, 67:21, 68:21, 88:10, 89:10, 89:17, 123:10, 127:3, 134:14, 135:3, 141:8
permits [9] - 56:7, 58:15, 58:16, 59:1, 60:16, 60:19, 69:2, 94:16, 134:20
permitted [2] - 126:2, 136:18
permitting [1] - 58:9
perpetuity [2] - 107:1, 107:3
person [3] - 47:11, 141:19, 141:25
personally [1] - 115:15
pertaining [2] - 1:11, 64:6
pertains [1] - 45:21
petitioned [1] - 10:21
petroleum [9] - 71:6, 71:9, 71:13, 74:5, 74:11, 74:19, 78:4, 85:4, 86:17
phase [9] - 24:8, 64:5, 110:2, 120:18, 120:19, 120:20, 120:23, 120:24, 121:1
phases [7] - 61:8, 120:17, 120:21, 120:22, 120:24, 121:5, 121:8
phonetic [1] - 30:13
physical [5] - 60:19, 60:21, 64:22, 106:16, 123:10
physics [1] - 26:17
pick [3] - 19:10, 19:11, 135:20
Pick [1] - 2:7
PICK [32] - 1:10, 20:16, 20:25, 21:7, 21:10, 21:25, 23:4, 23:12, 23:14, 23:23, 29:2, 29:5, 29:9, 35:12, 35:18, 47:18, 48:8, 48:19, 48:22, 48:25, 57:3, 57:11, 80:5, 80:22, 81:2, 81:10, 81:22, 116:9, 116:13, 116:15, 116:23, 146:11
picture [1] - 17:9
piece [6] - 99:12, 100:20, 101:25, 102:23, 105:1, 108:4
piecemeal [1] - 44:15
pieces [4] - 56:1, 56:2, 56:6, 101:5
pilots [1] - 40:14
pipe [1] - 83:6
pipes [1] - 121:3
place [10] - 24:12, 48:14, 49:2, 50:24,

69:4, 69:21, 86:24, 105:19, 107:1, 130:7
placed [4] - 1:17, 27:7, 64:8, 113:5
places [1] - 36:16
Plan [5] - 3:8, 3:12, 3:13, 5:16, 46:5
plan [41] - 3:25, 8:2, 21:12, 25:11, 47:13, 48:2, 48:9, 61:21, 61:23, 62:3, 62:8, 63:17, 63:19, 63:20, 63:22, 66:6, 66:7, 66:11, 66:18, 66:25, 68:2, 68:3, 68:6, 68:13, 69:2, 69:6, 70:18, 70:19, 89:3, 89:12, 89:19, 89:20, 90:9, 97:15, 106:9, 114:15, 138:3, 138:5
Planing [1] - 61:24
planned [1] - 99:19
PLANNER [8] - 1:17, 1:20, 4:20, 8:5, 27:17, 49:6, 50:2, 93:7
Planner [1] - 2:11
planners [1] - 137:25
PLANNING [2] - 1:2, 1:2
Planning [24] - 3:15, 3:21, 4:14, 5:10, 5:11, 5:13, 6:5, 6:7, 6:12, 6:18, 49:21, 62:4, 66:10, 66:15, 67:4, 68:8, 68:9, 69:1, 99:18, 112:8, 113:5, 113:6, 136:7, 147:13
plans [16] - 25:9, 48:3, 48:4, 49:10, 51:25, 63:13, 63:15, 63:16, 63:25, 64:4, 64:14, 65:15, 65:17, 66:21, 67:1, 82:8
plant [91] - 4:8, 9:5, 9:15, 9:19, 9:20, 9:22, 10:1, 10:24, 11:3, 11:11, 11:20, 11:24, 12:7, 12:8, 13:1, 13:9, 14:25, 15:4, 15:18, 16:10, 16:17, 16:21, 16:22, 17:21, 18:2, 18:3, 18:7, 19:1, 22:5, 22:7, 22:13, 22:21, 24:4, 24:5, 27:7, 33:14, 35:22, 35:24, 37:3, 38:17, 45:12, 46:6, 46:16, 46:24, 48:1, 50:18, 51:18, 57:22, 70:20, 70:23, 71:15, 72:9, 72:14, 72:15, 73:16, 75:12, 75:15, 76:25, 77:25, 80:25, 82:2, 82:4, 84:22, 85:6, 86:6, 86:17, 86:19, 86:25, 87:4, 88:16, 88:17, 88:22, 90:4, 91:11, 96:11, 99:25, 100:17, 101:9, 103:10, 106:22, 107:1, 107:17, 107:19, 108:14, 109:6, 109:8, 114:2, 120:16, 136:25, 137:13
plant's [1] - 17:24
PLANTATIONS [1] - 1:1
plants [19] - 16:3, 17:17, 20:23, 21:8, 22:4, 24:25, 34:14, 34:24, 36:17, 92:5, 98:10, 98:18, 98:21, 103:8, 105:11, 105:15, 111:17, 135:4
plate [2] - 81:5, 87:5
playing [1] - 29:15
Plaza [2] - 2:16, 57:18
pleased [1] - 2:25
plus [2] - 18:8, 18:13
point [34] - 11:25, 29:19, 33:4, 33:5, 34:13, 39:9, 40:7, 40:16, 48:7, 51:11, 58:1, 70:4, 74:7, 74:18, 76:7, 77:21, 79:2, 81:17, 90:11, 95:9, 114:3, 115:7, 119:24, 124:16, 124:22, 129:13, 131:7, 131:20, 132:17, 132:24, 133:11, 145:1, 145:6
pointed [1] - 35:6
points [5] - 8:24, 34:4, 81:18, 113:22, 118:9
police [1] - 50:3
Police [2] - 113:10, 119:1
polished [1] - 81:15
POLLOCK [1] - 2:14
pollutant [5] - 35:21, 36:7, 41:13, 135:18, 137:16
pollutants [13] - 36:1, 36:16, 38:2, 38:18, 40:3, 40:5, 41:9, 42:25, 89:5, 136:16, 137:9, 138:2, 139:17
pollutes [1] - 42:20
polluting [1] - 40:22
pollution [9] - 37:10, 39:10, 40:9, 52:14, 52:16, 52:18, 135:10, 139:13
pond [1] - 64:11
ponds [2] - 62:2, 62:9
poor [4] - 128:19, 128:22, 129:10, 129:12
population [1] - 35:23
porous [1] - 30:5
portal [1] - 58:11
portion [3] - 5:3, 28:7, 75:7
pose [2] - 7:10, 145:13
posed [1] - 144:21
position [2] - 2:10, 128:7
possibilities [1] - 77:10
possibility [2] - 25:24, 78:22
possible [14] - 4:8, 6:10, 15:22, 43:2, 43:10, 45:24, 46:13, 47:15, 55:13, 64:12, 67:16, 80:10, 84:18, 87:5
possibly [1] - 51:18
post [2] - 6:13, 144:17
posted [1] - 6:9
potential [10] - 35:14, 35:22, 46:7, 49:1, 72:24, 74:10, 74:13, 82:7, 84:15, 137:15
potentially [4] - 36:11, 49:4, 72:25, 137:2
power [28] - 10:1, 16:10, 16:21, 17:17, 18:3, 36:17, 46:6, 46:16, 48:1, 51:17, 65:4, 72:9, 73:16, 82:1, 82:4, 84:22, 88:16, 88:17, 91:11, 96:11, 98:10, 98:18, 98:21, 103:8, 114:2, 137:12, 140:7, 140:11
powers [1] - 27:10
PPB [4] - 86:8, 86:10, 86:24, 87:6
PPB's [1] - 87:7
practice [2] - 21:17, 83:12
practiced [1] - 44:3
practicing [2] - 117:12, 117:17
precaution [2] - 21:24, 22:18
precautions [1] - 13:13
precludes [1] - 11:7
predicated [1] - 32:15
predict [2] - 100:1, 107:22
predicted [3] - 34:20, 57:24, 116:20
predicting [3] - 36:15, 103:22, 112:13
prefabricated [1] - 29:3
prefaced [1] - 96:8
prefer [1] - 70:13
preliminary [5] - 61:24, 68:6, 69:2, 69:6, 87:5
PREMIER [1] - 1:21
preparation [2] - 134:15, 134:17
prepared [7] - 31:3, 47:21, 67:25, 94:9, 99:2, 118:6, 124:19
preparing [1] - 138:16
Presbrey [1] - 2:8
PRESBREY [25] - 20:15, 35:2, 43:5, 43:10, 47:2, 47:7, 47:17, 56:9, 56:25, 61:3, 61:14, 61:18, 63:12, 64:17, 65:1, 65:19, 66:2, 77:17, 78:7, 78:15, 78:19, 79:7, 79:12, 79:18, 80:4
presence [3] - 18:19, 52:23, 136:12
PRESENT [1] - 2:9
present [15] - 1:6, 4:23, 6:5, 6:15, 6:16, 8:3, 31:20, 44:24, 45:1, 92:6, 103:1, 118:2, 131:11, 144:14, 144:16
presentation [5] - 4:6, 4:9, 7:21, 96:15, 144:10
presentations [1] - 6:20
presented [5] - 7:9, 43:13, 76:25, 77:20, 142:14
presenting [1] - 97:14
presently [1] - 95:10
pressure [1] - 12:21
presumed [1] - 37:7
pretty [7] - 50:3, 51:5, 63:10, 85:9, 124:13, 128:21, 129:7
prevent [3] - 5:23, 45:25, 137:8
preventing [1] - 50:19
preventive [1] - 50:23
preview [1] - 7:22
primarily [5] - 57:17, 57:22, 84:17, 99:6, 109:5
primary [6] - 60:10, 75:11, 85:15, 125:13, 138:4, 143:13
principal [2] - 28:5, 41:9
principally [1] - 35:25
principles [1] - 42:7
pristine [2] - 40:21, 40:22
private [2] - 60:2, 98:13
probability [2] - 15:13, 73:13
problem [4] - 28:15, 50:23, 59:11, 102:21
problematic [1] - 106:15
problems [4] - 40:12, 105:7, 106:23, 107:2
procedure [1] - 47:24
procedures [2] - 48:11, 113:1
proceedings [2] - 147:4, 147:5
process [49] - 12:23, 27:3, 33:11, 33:16, 33:18, 34:5, 36:10, 36:14, 38:5, 51:9, 52:19, 53:9, 58:14, 68:11, 69:22, 70:19, 70:20, 71:2, 75:2, 75:8, 75:12, 76:25, 77:6, 80:14, 80:18, 83:8, 85:3, 88:8, 88:23, 89:1, 89:7, 91:5, 92:2, 92:5, 105:8, 106:25, 108:8, 109:6, 110:18, 112:12, 116:3, 133:6, 133:9, 135:2, 135:3, 137:10, 137:12, 138:1, 138:16
processed [4] - 70:23, 70:24, 71:16, 77:15
processes [1] - 69:24
Procurement [1] - 30:21

produce [1] - 137:21
produced [1] - 114:3
product [2] - 54:2, 117:20
production [6] - 12:19, 74:14, 83:4, 83:8, 83:11, 100:4
products [1] - 35:25
professional [4] - 80:2, 98:6, 117:16, 134:2
PROGRAM [10] - 46:20, 46:25, 47:5, 47:12, 48:1, 48:10, 48:21, 48:23, 49:3, 50:11
program [3] - 140:13, 140:21, 141:10
programs [6] - 58:11, 139:16, 140:17, 140:18, 140:19
progress [1] - 129:10
progressively [1] - 129:10
project [26] - 3:21, 32:10, 33:9, 33:13, 42:9, 42:24, 46:6, 54:6, 59:14, 63:4, 100:14, 103:17, 118:7, 118:12, 119:12, 119:18, 123:11, 124:6, 128:7, 129:15, 130:2, 134:12, 135:25, 136:4, 137:2
PROJECT [2] - 55:4, 55:16
projected [2] - 71:18, 119:10
projections [1] - 81:19
projects [6] - 34:25, 44:5, 98:20, 119:14, 119:15, 119:18
promised [1] - 23:20
promulgate [1] - 107:17
prone [1] - 11:22
proof [1] - 28:10
propagating [1] - 111:20
proper [1] - 47:9
properly [1] - 25:22
properties [1] - 65:6
property [4] - 34:1, 69:14, 69:16, 74:16
proposal [4] - 81:2, 126:12, 134:10, 135:1
propose [1] - 126:14
proposed [22] - 33:9, 42:9, 45:10, 45:11, 45:22, 45:23, 46:8, 46:16, 48:6, 48:7, 71:2, 72:9, 72:13, 75:12, 75:17, 96:3, 98:19, 119:11, 119:23, 123:7, 123:16, 138:3
proposes [1] - 82:2
proposing [11] - 37:5, 69:16, 74:22, 77:22, 78:7, 78:11, 82:2, 86:8, 134:22, 137:20
proposition [1] - 107:21
propylene [1] - 71:11
prospective [5] - 33:12, 101:13, 104:7, 104:8, 136:4
protect [1] - 138:25
protected [2] - 111:18, 112:7
protecting [1] - 111:21
protective [4] - 9:12, 41:4, 45:17, 103:14
protocols [4] - 48:13, 51:2, 51:4, 51:25
prove [1] - 105:5
proven [1] - 29:9
provide [9] - 6:24, 43:16, 44:19, 49:21, 70:8, 70:18, 77:15, 101:14, 134:8
provided [8] - 31:1, 34:20, 44:17, 46:3, 46:20, 68:9, 80:13, 98:4
PROVIDENCE [2] - 1:1, 1:22
Providence [1] - 2:16
provides [1] - 100:16
providing [3] - 23:14, 70:19, 73:7
public [21] - 1:20, 1:23, 4:11, 4:13, 6:21, 6:22, 6:24, 97:6, 97:18, 130:23, 131:12, 131:15, 132:2, 135:23, 136:17, 136:24, 139:6, 144:14, 144:25
PUBLIC [1] - 1:5
Public [3] - 1:12, 49:25, 147:3
PUBLIC/CERTIFIED [1] - 147:10
published [2] - 6:11, 34:23
pull [7] - 76:20, 85:16, 90:16, 90:24, 123:25, 127:3
pulling [1] - 90:25
pump [10] - 71:21, 74:3, 74:8, 76:4, 76:14, 77:2, 79:13, 80:16, 94:1, 101:5
pumped [2] - 77:19, 86:14
pumping [5] - 74:12, 74:15, 76:7, 82:13, 84:13
pumps [1] - 28:22
pun [1] - 66:8
purchase [7] - 47:4, 139:20, 140:13, 140:23, 141:1, 141:6, 141:10
pure [1] - 92:19
purely [1] - 88:17
purpose [4] - 52:25, 130:1, 130:3, 139:16
purposes [1] - 139:22
pursued [1] - 140:15
put [25] - 2:10, 2:11, 5:1, 6:23, 9:24, 21:22, 22:24, 26:16, 48:2, 49:8, 52:17, 55:25, 64:10, 81:5, 83:4, 83:6, 84:8, 85:16, 85:19, 104:10, 105:18, 110:5, 114:17, 123:21
puts [1] - 145:15
putting [3] - 72:23, 80:8, 108:13

Q

qualifications [1] - 98:6
quality [17] - 7:24, 33:13, 40:12, 40:17, 40:18, 40:20, 41:9, 41:21, 41:25, 80:25, 135:22, 136:2, 136:5, 136:8, 136:11, 136:15, 136:23
Quality [1] - 136:22
quarter [2] - 47:23, 126:7
questioned [2] - 6:7, 6:17
questioning [1] - 144:19
questions [39] - 3:23, 4:15, 4:16, 4:19, 7:14, 19:25, 20:3, 20:15, 20:17, 23:24, 25:5, 30:10, 30:15, 31:18, 31:19, 35:13, 44:22, 53:12, 59:18, 64:5, 66:9, 68:10, 99:17, 102:6, 108:11, 124:16, 125:4, 130:15, 133:3, 136:8, 139:10, 144:11, 144:15, 144:16, 144:21, 145:8, 145:23, 146:1
quick [5] - 20:16, 35:13, 51:22, 57:3, 116:15
quickly [3] - 58:2, 100:4, 125:11
quiet [7] - 10:3, 13:8, 21:19, 28:21, 101:13, 110:21
quieter [2] - 10:25, 19:4
quieting [1] - 101:8
quite [4] - 11:16, 13:12, 47:21, 108:17
quote [1] - 37:9

R

radiators [1] - 92:17
raid [1] - 19:7
rain [1] - 141:10
raise [1] - 97:17
raised [1] - 95:20
range [1] - 74:15
ranges [2] - 16:15, 71:12
rank [1] - 137:16
ranked [1] - 122:21
rapidly [1] - 14:7
rate [5] - 51:24, 56:18, 119:21, 119:22, 121:1
rated [1] - 31:9
rates [2] - 119:5, 119:7
rather [4] - 19:8, 44:14, 56:2, 109:23
rating [1] - 102:19
re [2] - 143:10, 143:19
RE [2] - 1:5, 147:13
re-advertise [1] - 143:19
reached [1] - 49:21
reaches [1] - 7:4
reaching [2] - 38:25, 122:22
react [1] - 124:1
reactivated [2] - 70:22, 71:25
reactivating [2] - 73:3, 79:5
reactivation [4] - 71:17, 72:19, 73:5, 73:15
read [6] - 35:13, 63:21, 82:6, 86:25, 116:15, 139:12
reading [2] - 13:20, 141:16
readings [1] - 16:5
ready [3] - 4:11, 5:3, 140:18
real [3] - 21:19, 28:15, 116:15
realize [1] - 103:11
really [26] - 9:15, 13:12, 13:19, 19:6, 25:8, 37:7, 40:9, 40:10, 40:11, 54:16, 55:9, 56:15, 58:2, 63:25, 64:14, 65:8, 66:16, 90:17, 92:18, 95:14, 102:21, 110:8, 120:13, 121:9, 122:4, 130:19
reason [7] - 11:2, 11:7, 19:1, 40:2, 40:19, 86:12, 140:8
reasonable [2] - 107:5, 138:24
reasons [1] - 107:10
reboot [1] - 101:4
receive [1] - 74:20
received [2] - 43:8, 102:23
receiving [3] - 65:24, 67:6, 115:6
recent [2] - 22:20, 129:14
recently [2] - 16:4, 103:7
receptors [1] - 142:12
recess [1] - 96:17
RECESS [1] - 96:25
recharge [1] - 76:2
recommend [6] - 62:13, 93:10, 110:8, 110:9, 110:20, 110:24
recommendation [8] - 65:22, 73:24, 81:3, 81:5, 93:17, 105:20, 106:24, 125:21
recommendations [5] - 46:3, 65:25, 73:4, 75:21, 113:7
recommended [10] -

22:24, 89:14, 89:16, 89:23, 89:25, 91:19, 101:19, 102:14, 138:15
recommending [2] - 63:1, 80:16
recommends [1] - 62:18
reconstructed [1] - 129:6
reconvene [1] - 96:24
RECORD [3] - 143:6, 143:17, 143:22
record [9] - 1:20, 32:1, 45:6, 98:2, 117:5, 127:22, 133:23, 143:16, 147:5
recording [1] - 118:20
recused [1] - 2:7
recycled [2] - 86:1, 86:3
recycling [1] - 85:23
red [1] - 4:22
redevelop [1] - 83:13
redid [1] - 123:4
redirect [1] - 110:12
reduce [7] - 52:23, 62:5, 63:2, 87:18, 138:6, 139:21, 139:24
reduced [1] - 122:14
reduces [1] - 106:3
reducing [3] - 26:4, 100:3, 140:12
reduction [1] - 138:5
redundancy [3] - 74:22, 77:15, 80:20
redundant [3] - 13:13, 15:21, 24:2
refer [5] - 41:17, 66:24, 66:25, 118:5, 120:18
referenced [1] - 52:2
referred [2] - 96:1, 120:22
referring [2] - 109:4, 109:5
regard [3] - 27:4, 27:5, 105:14
regarding [4] - 5:14, 93:18, 128:1, 134:21
regards [2] - 109:13, 136:7
region [2] - 139:18, 140:5
regional [2] - 33:12, 39:17
registration [1] - 63:24
regular [9] - 2:3, 37:20, 38:18, 57:21, 72:23, 81:18, 81:22, 89:20, 99:25
regularly [3] - 105:9, 105:12, 105:14
regulated [3] - 41:19, 89:21, 126:2
regulation [3] - 114:7, 135:10, 135:12
regulations [12] - 41:3, 42:8, 42:22, 45:20, 46:5, 47:13, 47:16, 58:18, 58:21, 135:8, 135:11, 135:14
regulatory [6] - 10:14, 32:5, 38:22, 41:22, 99:12, 134:15
reintroduce [1] - 84:19
reiterate [2] - 109:7, 134:20
related [9] - 52:15, 56:22, 73:3, 73:4, 73:16, 74:11, 76:15, 79:4, 119:2
relationship [1] - 98:16
relative [7] - 72:21, 79:5, 80:15, 81:21, 86:18, 88:12, 119:6
relatively [2] - 128:19, 129:12
release [7] - 45:19, 48:13, 48:18, 48:24, 50:19, 71:5, 116:16
released [1] - 138:2
releases [4] - 45:24, 45:25, 46:1, 50:14
relied [1] - 41:5
rely [5] - 13:3, 38:22, 66:20, 69:23, 80:20
remain [3] - 97:10, 98:12, 139:5
remediate [2] - 90:23, 91:3
remediated [1] - 90:12
remediation [10] - 72:6, 90:11, 95:2, 95:8, 95:10, 95:11, 95:14, 96:10, 96:11, 96:12
remember [2] - 29:13, 93:1
remembered [1] - 92:24
remind [2] - 49:7, 68:1
remove [3] - 88:20, 88:23, 138:7
removing [1] - 138:1
render [1] - 5:13
renditions [1] - 25:14
report [24] - 8:22, 15:7, 20:17, 30:25, 32:12, 41:7, 55:22, 58:23, 62:10, 64:15, 67:25, 82:7, 99:4, 102:7, 103:21, 104:10, 115:8, 117:24, 118:6, 134:18, 138:9, 139:12, 142:9
Report [2] - 142:11, 142:17
reported [2] - 20:19, 147:3
REPORTER [10] - 1:18, 8:17, 31:25, 45:5, 53:19, 98:1, 117:4, 127:21, 133:22, 147:10
reporter [2] - 8:10, 96:16
reporting [1] - 37:22
reports [7] - 6:8, 6:10, 6:14, 31:2, 35:5, 43:8, 98:23
represent [1] - 2:13
representative [1] - 4:10
representing [1] - 2:8
reputation [1] - 98:15
request [11] - 1:15, 10:22, 43:6, 59:25, 73:23, 79:3, 90:1, 93:14, 93:19, 99:6, 99:20
requested [2] - 2:12, 68:12
requests [1] - 31:3
require [3] - 28:16, 34:12, 49:19
required [17] - 34:3, 36:21, 37:11, 37:25, 39:16, 42:25, 57:4, 65:21, 65:22, 110:7, 134:21, 134:23, 135:20, 135:24, 136:18, 138:20, 140:20
requirement [2] - 114:8, 135:17
requirements [10] - 5:20, 33:21, 37:23, 38:1, 39:10, 41:3, 45:16, 63:21, 127:6, 141:4
requiring [1] - 139:19
research [1] - 89:24
residence [1] - 29:13
residences [2] - 31:12, 73:1
resident [1] - 1:16
residential [3] - 74:16, 93:5, 107:18
residents [3] - 17:9, 100:2, 107:19
residual [1] - 74:11
resistors [1] - 21:13
resolution [1] - 106:25
resolved [1] - 62:7
resonate [1] - 116:18
resource [1] - 134:24
resources [2] - 21:15, 65:14
respect [1] - 47:20
respond [3] - 46:16, 96:7, 115:14
responded [3] - 50:2, 50:3, 93:19
responding [1] - 51:12
responds [1] - 123:4
response [7] - 47:24, 48:2, 48:3, 48:4, 48:9, 48:15, 48:17
responses [5] - 31:3, 50:14, 67:8, 99:6, 124:20
responsibility [1] - 91:10
responsible [1] - 58:24
rest [3] - 22:25, 23:1, 40:21
restrictions [1] - 5:24
result [5] - 128:10, 136:12, 137:2, 142:13, 142:14
resulted [1] - 121:11
results [6] - 32:14, 122:3, 128:16, 138:19, 142:9, 142:10
resumes [1] - 98:5
resurfacing [1] - 119:18
retention [3] - 62:9, 64:7, 64:11
retro [1] - 106:14
retrofit [1] - 24:9
reverse [6] - 88:25, 89:4, 91:22, 92:1, 92:9, 92:18
review [22] - 1:6, 8:2, 32:21, 32:24, 33:15, 39:20, 45:9, 53:23, 56:10, 61:21, 61:25, 62:13, 63:11, 94:10, 94:13, 115:7, 115:19, 122:15, 124:14, 124:17, 124:19, 128:13
Review [1] - 3:8
reviewed [3] - 43:13, 61:23, 93:19
reviewing [3] - 70:21, 78:10, 80:12
RFP [1] - 46:7
RHODE [1] - 1:1
Rhode [18] - 1:12, 1:13, 32:8, 39:19, 39:24, 40:10, 40:22, 41:20, 41:24, 60:14, 63:5, 63:23, 117:14, 117:15, 128:5, 136:21, 138:17, 140:8
RI [2] - 1:22, 2:16
RIDEM [20] - 32:8, 32:18, 32:21, 33:3, 33:8, 33:19, 34:12, 39:15, 41:3, 41:22, 44:3, 44:8, 44:10, 44:13, 44:16, 44:18, 69:6, 134:24, 138:21, 141:22
RIDOT [17] - 55:19, 56:7, 57:7, 57:9, 57:12, 58:9, 58:16, 58:18, 64:23, 67:22, 69:7, 119:17, 123:9, 126:2, 139:15
rightfully [1] - 22:12
rigorous [1] - 135:3
RIPTA [1] - 67:21
riser [1] - 83:6
risers [1] - 28:8
risk [10] - 32:12, 32:13, 33:6, 45:15, 46:7, 46:8, 47:12, 141:14, 142:6
Risk [3] - 46:4, 142:11, 142:16
River [10] - 3:5, 71:24, 72:1, 73:12, 73:19, 75:4, 75:9, 79:11, 83:25, 84:1
river [3] - 75:5, 76:2, 84:1
RMP [2] - 46:4, 47:16
road [18] - 56:21, 58:5, 59:9, 59:10, 59:24, 60:1, 60:2, 61:10, 61:12, 62:17, 62:19, 62:21, 69:10, 69:13, 81:21, 126:2, 126:9
Road [9] - 3:6, 29:13, 64:18, 64:20, 77:13, 107:23, 123:8,

129:14
roads [9] - 50:25, 55:13, 55:17, 55:18, 59:8, 60:10, 60:11, 61:15, 126:19
roadway [6] - 56:14, 59:20, 64:17, 118:15, 119:13, 123:19
roadways [2] - 55:21, 127:10
roaming [1] - 122:24
ROBERT [1] - 127:18
Robert [3] - 2:5, 127:17, 127:23
role [1] - 69:1
roles [1] - 94:22
room [4] - 13:10, 15:23, 106:16, 146:8
rooted [1] - 64:24
roundabout [1] - 119:15
route [9] - 54:9, 55:17, 57:1, 118:22, 119:4, 126:3, 127:11, 128:14
Route [16] - 29:17, 54:8, 55:17, 56:13, 57:8, 57:15, 58:4, 59:2, 118:21, 119:16, 119:18, 126:4, 128:14, 129:1
routes [4] - 54:12, 57:8, 61:12, 121:24
RPR [2] - 1:12, 1:17
rubber [1] - 111:14
rule [1] - 105:25
rules [1] - 6:3
run [12] - 9:5, 37:9, 58:11, 76:16, 80:11, 81:6, 82:9, 93:11, 100:22, 132:4, 132:6, 146:9
running [9] - 11:12, 16:16, 18:4, 18:7, 56:3, 57:25, 76:14, 76:18, 82:8
runoff [3] - 62:6, 64:19
runs [1] - 132:7
rural [4] - 99:16, 103:11, 103:13
ruts [1] - 129:21
rutting [1] - 129:18

S

S-M-I-T-H [1] - 127:23
safe [8] - 123:15, 123:24, 124:4, 124:5, 135:23, 136:17, 136:24
safely [1] - 51:9
safety [4] - 45:25, 50:10, 119:8, 139:6
salient [1] - 8:24
sample [1] - 81:17
samples [1] - 94:2
Santa [4] - 90:19, 95:19, 96:8, 96:10
sat [1] - 69:6
satisfactory [1] - 11:9
satisfy [1] - 9:21
save [1] - 144:8
saw [1] - 22:6
scale [3] - 14:13, 83:10, 83:14
scared [1] - 83:19
scenario [2] - 47:8, 142:10
schedule [3] - 8:4, 119:11, 132:11
scheduled [1] - 1:13
schedules [1] - 131:21
scheduling [1] - 131:15
scheme [2] - 72:11, 85:18
School [2] - 1:13, 107:23
schooled [1] - 13:19
science [2] - 78:18, 134:4
scramble [1] - 22:9
screen [3] - 83:7, 83:9, 94:9
scrutiny [1] - 102:23
seal [4] - 128:25, 129:4, 129:14, 147:7
seals [1] - 128:24
searched [2] - 29:16
second [19] - 1:10, 3:11, 10:6, 24:15, 37:2, 38:12, 41:8, 64:1, 81:14, 85:7, 85:8, 85:15, 94:21, 96:20, 118:12, 131:6, 135:8, 144:4, 146:11
secondary [1] - 86:5
secondly [1] - 107:16
Secretary [1] - 2:5
SECRETARY [54] - 1:9, 25:6, 25:9, 25:13, 25:19, 25:23, 26:4, 37:18, 38:4, 38:7, 38:16, 38:24, 39:3, 39:6, 42:3, 42:13, 42:16, 49:24, 50:5, 50:12, 51:14, 51:19, 52:3, 57:14, 58:13, 59:20, 60:6, 66:5, 82:5, 83:19, 83:22, 84:3, 84:17, 84:24, 85:5, 85:22, 86:4, 86:11, 86:21, 91:19, 91:25, 92:8, 96:18, 109:19, 110:12, 110:19, 110:24, 111:9, 111:12, 111:22, 125:11, 126:5, 126:12, 144:4
section [3] - 58:1, 128:21, 129:1
security [2] - 33:14, 65:6
see [34] - 5:1, 15:10, 17:20, 23:17, 24:10, 24:11, 34:10, 34:12, 38:20, 41:10, 58:2, 58:25, 65:9, 65:20, 66:7, 66:23, 67:1, 77:3, 84:5, 111:16, 112:10, 123:21, 124:1, 124:10, 125:19, 126:5, 126:8, 128:9, 129:18, 130:6, 130:14, 135:5, 137:13
seeing [3] - 59:23, 65:24, 66:11
seek [1] - 61:12
seem [1] - 57:16
segments [1] - 119:3
segregate [1] - 68:7
sell [1] - 140:2
send [4] - 26:17, 26:19, 49:13, 88:16
sending [2] - 49:13, 92:8
senior [1] - 128:3
sense [1] - 34:17
separate [3] - 36:25, 37:15, 103:10
separated [1] - 37:4
separates [1] - 73:20
sequence [1] - 78:24
serious [3] - 36:23, 104:8, 112:17
seriously [5] - 12:10, 104:15, 104:17, 105:16
seriousness [1] - 101:24
serve [1] - 52:23
Service [1] - 122:20
service [6] - 59:21, 122:13, 122:15, 122:21, 123:1, 129:4
services [1] - 134:6
servicing [2] - 60:10, 90:13
set [19] - 4:11, 37:1, 39:15, 41:8, 41:21, 42:1, 63:14, 80:4, 85:7, 93:10, 107:20, 116:7, 128:9, 130:3, 139:17, 139:22, 140:6, 147:7
sets [1] - 99:2
setup [3] - 62:8, 111:1, 135:1
seven [5] - 63:14, 72:2, 72:3, 94:15, 118:20
several [10] - 19:25, 29:8, 69:25, 73:12, 85:25, 93:21, 93:22, 97:13, 129:5, 139:15
severe [1] - 119:8
Sewer [1] - 89:17
sewer [10] - 8:3, 70:16, 77:19, 78:9, 88:4, 88:9, 88:13, 89:3, 89:9, 89:12
shack [1] - 21:13
shape [1] - 50:4
share [1] - 35:9
shared [1] - 69:13
SHEEHAN [1] - 2:14
sheet [7] - 4:22, 6:23, 7:1, 63:14, 63:17, 64:1, 65:13
Sheet [1] - 63:18
shelf [1] - 100:18
shipping [1] - 59:13
shoes [1] - 95:7
shoot [1] - 112:18
short [4] - 21:4, 33:1, 74:7, 130:25
shorthand [1] - 147:3
shortly [1] - 68:1
show [5] - 36:21, 62:11, 85:13, 136:18, 137:1
showed [2] - 62:2, 85:7
showing [3] - 62:9, 115:22, 138:20
shown [1] - 65:14
shut [2] - 11:14, 61:7
shutdown [10] - 15:2, 15:12, 20:18, 21:7, 48:10, 61:12, 71:4, 71:22, 111:24, 116:16
side [3] - 64:11, 100:11, 129:11
sidewalk [2] - 129:23, 129:24
sight [3] - 58:3, 106:22, 123:19
sign [6] - 4:22, 4:24, 4:25, 5:2, 6:23, 6:25
sign-in [2] - 4:22, 6:23
signaled [1] - 54:14
signalized [1] - 55:6
signed [2] - 6:22, 97:7
significance [1] - 73:14
significant [9] - 14:20, 36:21, 38:23, 41:5, 77:3, 79:4, 81:14, 108:4, 108:6
silencer [1] - 29:4
silencers [5] - 21:13, 100:12, 100:16, 100:25, 108:5
silencing [1] - 102:3
similar [10] - 22:20, 29:20, 34:15, 63:14, 90:20, 98:18, 126:17, 126:23, 135:4, 137:22
similarly [1] - 122:24
simple [1] - 35:19
simply [6] - 26:16, 40:20, 70:12, 113:25, 130:25, 132:11
single [4] - 90:5, 101:6, 102:23, 125:23
site [53] - 25:11, 54:9, 54:25, 56:6, 56:7, 59:21, 60:2, 60:11, 60:22, 62:3, 62:6, 62:7, 62:16, 62:17, 62:25, 68:17, 88:21, 95:7, 99:13, 99:14, 103:11, 117:22, 117:24, 118:22, 119:11, 119:23, 119:25, 120:8, 120:11, 120:13, 120:20, 120:25, 121:4, 121:12, 122:10, 123:7, 123:13, 123:14, 123:15, 123:16, 123:17, 123:18, 123:20, 123:21, 123:24, 125:15, 125:18, 125:25, 127:14, 128:15, 129:15
sites [2] - 15:25, 16:1
siting [1] - 70:12

Siting [1] - 5:12
sitting [1] - 5:11
situation [9] - 16:5, 16:14, 57:2, 61:13, 65:10, 86:2, 116:22, 120:1, 126:10
situations [3] - 56:11, 56:16, 61:5
six [2] - 41:9, 82:24
size [4] - 37:24, 59:13, 75:19, 81:7
sizes [1] - 78:5
skid [1] - 101:3
skids [1] - 101:2
skip [1] - 97:10
slightly [1] - 24:2
slow [1] - 123:22
small [3] - 36:4, 36:9, 101:3
smaller [1] - 37:6
Smith [4] - 127:17, 127:23, 127:24, 128:3
SMITH [4] - 127:18, 128:3, 128:18, 130:3
Smithfield [1] - 57:5
smog [1] - 36:8
smoke [2] - 52:20, 92:20
snake [1] - 127:3
soil [3] - 65:14, 82:21
solicitor [1] - 4:10
Solicitor [5] - 2:12, 2:1, 2:6, 2:13, 5:9
solution [3] - 22:9, 50:9, 87:16
solved [1] - 65:2
someone [5] - 95:7, 97:8, 112:1, 123:20, 125:5
sometimes [4] - 55:24, 79:25, 108:18, 113:6
somewhere [4] - 38:9, 38:10, 90:18, 114:1
soot [1] - 36:5
sorry [9] - 2:16, 44:1, 50:8, 51:21, 66:20, 67:2, 110:23, 115:20, 125:17
sort [10] - 42:20, 44:15, 51:8, 60:18, 98:23, 105:25, 106:1, 106:8, 106:25, 128:9
sorted [1] - 12:13
sought [1] - 113:13
sound [20] - 10:24, 11:8, 13:24, 14:3, 14:9, 14:11, 14:19, 15:5, 16:20, 17:5, 19:2, 19:4, 19:7, 19:12, 26:4, 26:8, 28:10, 28:17, 29:24, 30:5
soundproof [1] - 102:19
sounds [4] - 18:9, 103:10, 107:21, 111:25
source [9] - 75:12, 75:19, 77:5, 80:20, 134:23, 135:3, 136:18, 137:22, 141:1
sources [6] - 36:17, 75:14, 77:9, 80:18, 80:23, 136:1
South [3] - 122:6, 122:12, 129:16
south [1] - 125:15
southbound [1] - 123:2
southern [1] - 84:12
Sovereign [1] - 45:8
space [2] - 29:22, 82:21
spark [1] - 101:24
SPEAKER [9] - 20:5, 131:7, 131:9, 131:14, 132:8, 132:11, 132:15, 132:17, 132:22
speaking [3] - 66:7, 86:5, 127:9
special [5] - 5:22, 12:1, 49:17, 56:7, 58:16
specific [8] - 5:14, 35:21, 35:22, 70:7, 104:25, 105:1, 115:12, 143:8
specifically [5] - 52:13, 72:1, 107:8, 114:4, 128:20
specified [1] - 102:20
specify [2] - 111:4, 111:5
specs [1] - 34:16
spectrum [2] - 10:7, 10:9
speculate [1] - 48:6
spell [8] - 8:18, 31:25, 45:5, 53:19, 98:1, 117:4, 127:22, 133:22
spent [7] - 7:14, 70:24, 75:8, 85:2, 99:14, 101:12, 103:7
spill [5] - 48:12, 50:16, 50:17, 51:12
spot [3] - 129:16, 142:1, 142:4
Spring [2] - 127:5, 128:12
stabilization [1] - 76:7
stack [7] - 34:23, 38:8, 38:9, 38:10, 38:12, 52:21
stacks [4] - 36:18, 40:1, 52:20, 92:21
staff [3] - 49:8, 121:7, 121:8
stage [10] - 6:23, 25:17, 43:19, 66:7, 67:1, 82:22, 106:10, 121:16, 121:17, 124:9
stainless [1] - 83:9
stand [1] - 30:20
standard [12] - 21:17, 39:17, 39:23, 40:16, 46:22, 47:3, 51:5, 78:3, 78:12, 103:18, 112:6
standards [27] - 37:1, 38:3, 39:14, 39:15, 39:16, 41:21, 42:1, 42:5, 42:10, 42:18, 42:23, 43:2, 46:19, 59:24, 59:25, 60:4, 60:23, 63:24, 64:3, 135:22, 136:2, 136:15, 136:19, 137:4, 138:20
Standards [1] - 136:22
standing [2] - 142:1, 142:3
standpoint [2] - 87:6, 110:11
start [12] - 11:10, 11:24, 21:2, 81:24, 84:12, 90:25, 97:3, 99:25, 101:10, 104:5, 130:20, 133:16
started [4] - 22:7, 22:21, 82:5, 95:3
starting [3] - 14:6, 14:7, 20:24
starts [3] - 99:12, 112:12, 130:4
startup [15] - 11:14, 11:22, 12:2, 12:19, 13:11, 15:1, 15:11, 20:18, 21:1, 21:7, 37:25, 99:5, 102:6, 111:24
STATE [1] - 1:1
state [29] - 8:17, 9:10, 31:25, 39:11, 45:5, 53:8, 53:19, 55:18, 57:8, 60:3, 60:11, 60:23, 61:5, 61:6, 61:15, 89:21, 98:1, 114:2, 114:20, 117:4, 127:21, 133:22, 135:10, 137:20, 138:23, 139:18, 140:7, 140:22
State [10] - 1:12, 32:7, 39:19, 42:19, 42:21, 60:17, 61:9, 63:23, 136:21
statement [1] - 112:4
states [2] - 44:6, 140:6
States [3] - 117:15, 137:13, 137:23
statewide [1] - 136:23
station [10] - 10:18, 16:10, 16:15, 16:19, 17:6, 17:17, 17:19, 18:6, 18:7, 134:24
stationery [2] - 134:23, 134:24
stats [2] - 85:6
status [3] - 33:6, 33:15, 41:24
statute [1] - 69:4
stay [2] - 40:5, 139:18
staying [1] - 61:9
STC [3] - 102:19, 102:20
steady [1] - 16:18
steam [19] - 12:18, 12:19, 12:20, 21:12, 22:17, 28:7, 28:13, 28:14, 91:21, 92:3, 100:6, 101:25, 105:24, 109:6, 109:13, 109:14, 110:15, 110:18, 116:16
Steam [1] - 95:17
steel [1] - 83:9
step [7] - 104:21, 104:22, 104:23, 118:11, 118:12, 135:4, 135:8
stepped [1] - 95:8
stepping [1] - 95:7
steps [2] - 118:10, 136:3
still [12] - 18:1, 22:23, 31:14, 33:2, 67:9, 75:15, 76:5, 76:6, 106:22, 111:23, 137:3, 145:23
stone [1] - 102:22
stop [4] - 61:16, 123:18, 123:24, 124:4
stopped [1] - 124:2
stopping [2] - 123:15, 123:17
storage [8] - 45:11, 45:17, 45:22, 48:3, 48:4, 64:8, 71:5
store [2] - 51:9, 51:10
stores [1] - 51:3
storm [12] - 62:1, 62:3, 62:10, 64:8, 64:13, 64:15, 64:18, 64:24, 67:21, 67:25, 69:8, 69:19
straight [1] - 55:2
strange [1] - 18:9
stream [4] - 72:2, 75:4, 94:13, 94:25
streaming [1] - 86:18
Street [28] - 57:17, 57:23, 59:3, 59:9, 61:7, 122:6, 122:7, 122:12, 122:25, 123:23, 124:1, 125:12, 125:15, 125:16, 125:18, 126:4, 126:6, 129:8, 129:9, 129:17
street [5] - 121:18, 121:25, 122:2, 124:8, 127:1
streets [1] - 121:22
stressing [1] - 84:13
strict [1] - 27:11
strictly [1] - 25:20
strike [1] - 102:25
strong [2] - 27:6, 27:9
strongly [2] - 27:12, 65:8
structural [2] - 110:4, 110:10
studies [4] - 59:17, 118:10, 126:18
study [18] - 12:1, 53:25, 55:12, 55:15, 56:10, 56:15, 56:16, 56:24, 57:15, 58:7, 87:20, 94:5, 99:3, 117:22, 119:3, 119:19, 119:24, 128:2
stuff [2] - 85:24, 92:17
stump [1] - 110:7
Subdivision [1] - 3:4
subject [3] - 23:9, 45:15, 82:1
submission [1] -

61:24
submit [3] - 33:14, 43:7, 43:11
submittal [1] - 72:11
submitted [17] - 8:22, 32:9, 33:17, 33:25, 44:8, 44:17, 61:23, 63:22, 64:4, 91:12, 96:3, 115:6, 115:21, 117:8, 137:5, 138:17, 141:17
submitting [1] - 8:6
subsequent [1] - 104:16
subsequently [1] - 106:11
substances [1] - 35:21
substantial [1] - 113:19
substitute [1] - 29:7
subsurface [1] - 84:16
subtle [1] - 14:22
suburban [1] - 103:12
successfully [1] - 23:2
succession [1] - 77:5
sufficient [1] - 80:17
suggest [4] - 27:12, 27:18, 28:2, 67:14
suggested [2] - 7:13, 47:18
suggesting [3] - 10:20, 73:19, 145:12
suggestion [2] - 27:4, 65:12
suggests [1] - 26:16
suite [1] - 135:19
sulfur [1] - 141:11
summaries [1] - 6:6
summarize [1] - 124:20
summarized [1] - 124:5
summary [4] - 13:15, 20:17, 37:16, 118:8
summer [1] - 71:18
summons [1] - 113:10
superimposed [1] - 122:2
supplemental [3] - 6:10, 6:14, 80:18
supplies [1] - 116:4
Supply [2] - 78:22, 79:19
supply [2] - 90:13, 114:23
SUPPORT [1] - 1:21
support [4] - 32:10, 109:22, 110:7, 137:5
supports [2] - 110:5
supposed [2] - 108:15, 132:10
surface [2] - 122:22, 128:25
surge [1] - 122:24
surpassing [1] - 104:3
surprise [1] - 22:8
surrender [1] - 28:17
surround [1] - 25:25
surrounded [1] - 64:9
surrounding [8] - 26:6, 35:23, 44:6, 118:15, 121:13, 121:18, 121:22, 124:8
survey [3] - 63:17, 63:19, 64:2
surveyor [1] - 63:20
surveyors [1] - 63:24
surveys [1] - 64:2
suspenders [1] - 82:18
sustained [1] - 106:20
swap [1] - 52:4
swear [3] - 8:10, 97:22, 112:3
switch [3] - 42:5, 74:24, 85:8
sworn [8] - 8:15, 31:23, 45:3, 53:17, 97:24, 117:2, 127:19, 133:20
synopsis [1] - 1:23
system [25] - 13:22, 16:11, 23:1, 37:11, 38:11, 41:22, 72:8, 74:17, 74:23, 77:19, 78:9, 81:25, 82:3, 84:18, 84:19, 86:5, 86:13, 87:14, 91:22, 92:9, 109:14, 124:9, 138:5, 141:9
System [4] - 73:6, 73:7, 73:10, 73:17
systems [5] - 72:6, 73:20, 79:1, 81:6, 138:6

T

table [1] - 82:20
talks [2] - 65:13, 71:6
tall [1] - 36:18
tank [8] - 28:13, 29:3, 50:7, 50:8, 52:1, 71:5, 87:18, 102:2
tanker [1] - 50:25
task [1] - 67:4
tasked [1] - 45:10
teaching [1] - 18:23
team [9] - 45:9, 46:6, 48:1, 51:18, 73:16, 74:1, 82:2, 84:22, 91:11
tech [1] - 93:8
technical [5] - 9:1, 32:20, 32:22, 34:5, 115:11
technically [2] - 19:3, 43:2
technologies [1] - 135:15
technology [8] - 37:12, 43:1, 85:10, 135:16, 135:17, 135:20, 137:15, 137:18
Temblay [1] - 2:6
temperature [2] - 107:20, 107:25
ten [18] - 10:8, 14:8, 14:11, 14:19, 14:21, 18:17, 20:18, 21:1, 21:2, 72:2, 72:4, 82:10, 94:15, 96:18, 96:24, 125:14, 126:8, 143:1
tend [1] - 28:1
term [3] - 2:7, 74:7, 102:22
terminology [2] - 93:4, 103:20
terms [15] - 34:6, 34:8, 60:16, 68:20, 94:16, 95:13, 97:14, 109:7, 120:5, 122:3, 123:13, 127:12, 127:25, 130:2, 134:25
tertbutyl [1] - 71:7
test [20] - 23:15, 23:16, 58:6, 74:3, 74:8, 75:24, 75:25, 76:2, 76:4, 76:14, 80:10, 80:17, 82:9, 82:10, 82:11, 84:4, 93:11, 94:2, 104:9, 105:4
tested [7] - 37:20, 37:25, 71:22, 79:13, 80:23, 80:24, 114:2
testified [10] - 8:15, 21:14, 31:23, 53:17, 97:24, 103:1, 117:2, 125:1, 127:19, 133:20
testifies [1] - 45:3
testify [3] - 99:9, 127:17, 132:15
testimony [8] - 4:24, 8:9, 16:9, 27:23, 117:25, 118:3, 138:9, 139:8
testing [5] - 37:19, 37:21, 38:5, 38:7, 81:18
THE [45] - 2:3, 2:13, 8:17, 8:19, 20:5, 20:12, 21:6, 24:13, 31:25, 32:2, 36:23, 45:5, 45:7, 53:19, 53:21, 65:18, 66:1, 72:17, 79:20, 97:5, 97:20, 98:1, 98:3, 117:4, 117:6, 127:21, 127:23, 131:2, 131:4, 131:7, 131:9, 131:14, 131:19, 131:22, 132:8, 132:11, 132:15, 132:17, 132:22, 133:22, 133:24, 143:6, 143:17, 143:22, 144:12
theirs [1] - 146:2
thereafter [1] - 79:1
thereof [1] - 98:13
Thermal [1] - 3:4
THERMAL [2] - 1:7, 1:11
thinking [3] - 50:15, 51:19, 92:14
third [5] - 9:1, 32:25, 81:15, 85:15, 112:1
thirdly [1] - 108:3
thirty [5] - 20:18, 21:1, 21:3, 21:4, 21:8
thomas [2] - 2:10, 45:7
THOMAS [1] - 45:2
thoroughly [1] - 62:13
thoughts [1] - 20:1
thousand [2] - 14:17, 47:9
thousands [2] - 15:3, 40:11
three [31] - 5:24, 6:19, 9:25, 14:14, 32:9, 32:12, 32:17, 33:24, 37:20, 52:5, 52:9, 62:2, 74:25, 76:18, 77:23, 80:7, 81:3, 81:4, 81:13, 82:23, 85:14, 85:17, 85:21, 99:1, 99:14, 103:3, 107:18, 118:10, 118:25, 130:12, 143:3
throughout [1] - 135:5
throw [2] - 15:22, 103:19
thrown [1] - 102:21
tightened [1] - 58:2
today [8] - 20:12, 35:8, 67:8, 97:16, 104:21, 126:10, 126:11, 136:11
together [2] - 16:11, 48:2
toluene [1] - 71:11
Tom [9] - 1:16, 4:10, 5:7, 6:23, 7:1, 45:7, 49:24, 86:23, 89:25
ton [2] - 32:23, 39:23
tonight [2] - 7:17, 131:10
tons [1] - 39:22
took [8] - 90:23, 119:2, 120:6, 121:15, 121:16, 122:18, 128:13, 142:13
tools [1] - 79:15
top [3] - 26:21, 38:8, 93:1
total [5] - 17:25, 19:5, 32:18, 42:13, 120:12
totally [3] - 11:3, 14:4, 20:5
touch [1] - 8:24
touched [1] - 104:5
tough [1] - 24:14
touted [1] - 40:18
toward [1] - 7:15
towards [3] - 55:2, 84:15, 107:24
towers [1] - 25:13
town [8] - 4:10, 7:8, 31:20, 60:3, 61:15, 77:19, 78:9, 130:9
Town [46] - 2:11, 2:12, 1:25, 2:1, 2:6, 2:12, 5:9, 5:21, 6:4, 6:13, 6:19, 7:21, 8:25, 9:1, 9:3, 9:7, 19:25, 24:18, 31:1, 32:4, 32:24, 33:17, 35:8, 44:19, 48:9, 68:12, 70:15, 97:14, 101:15, 102:5, 112:24, 112:25, 113:9, 113:12, 113:23, 115:10, 119:20, 129:6, 130:13, 131:2, 137:17, 139:1, 144:8, 147:13
TOWN [9] - 1:2, 1:17,

1:20, 4:20, 8:5, 27:17, 49:6, 50:2, 93:7
Town's [11] - 4:3, 5:16, 5:17, 6:8, 6:9, 6:15, 8:11, 96:15, 99:6, 99:10, 99:19
towns [2] - 57:10, 73:19
townspeople [1] - 54:11
toxins [2] - 38:19, 138:7
track [2] - 67:10, 84:5
tracks [1] - 84:3
tractor [1] - 125:24
traditionally [1] - 68:2
traffic [54] - 7:25, 53:15, 53:23, 53:24, 54:4, 54:14, 54:20, 55:11, 55:12, 55:21, 56:4, 56:10, 56:23, 56:24, 57:15, 58:5, 59:23, 62:23, 97:15, 108:19, 116:25, 117:12, 117:21, 118:12, 118:13, 118:16, 118:20, 118:23, 119:3, 119:7, 119:12, 119:22, 120:2, 120:6, 120:7, 120:9, 120:14, 120:22, 121:11, 121:16, 121:17, 121:19, 121:21, 121:23, 121:25, 122:1, 122:8, 122:19, 124:7, 124:13, 126:11, 126:18, 128:2
trailer [1] - 57:19
trailers [1] - 125:24
train [3] - 49:17, 77:23
trained [1] - 69:25
training [2] - 46:16, 49:17
trains [1] - 81:4
trans [1] - 74:23
transcend [1] - 102:7
transcript [1] - 147:4
transducers [1] - 84:8
transfer [1] - 78:8
transformers [3] - 100:22, 100:23
transient [5] - 11:10, 99:4, 99:7, 101:10, 115:8
transparent [1] - 133:9
transpired [1] - 2:9
transport [2] - 45:18, 51:9
transportation [1] - 117:17
Transportation [3] - 54:1, 60:14, 128:6
transported [1] - 51:1
transporting [1] - 50:24
trapped [1] - 129:12
travel [3] - 58:3, 119:14, 119:19
traveled [1] - 61:14
traveling [1] - 61:4
treat [7] - 62:6, 78:4, 87:5, 88:15, 88:23, 89:12, 90:1
treated [6] - 70:22, 77:24, 78:12, 88:17, 100:9, 101:7
Treatment [1] - 71:1
treatment [29] - 50:17, 71:12, 72:8, 72:11, 72:12, 72:16, 72:20, 74:17, 75:9, 75:17, 77:22, 78:1, 81:1, 86:13, 87:3, 88:12, 88:19, 88:20, 88:22, 89:3, 89:12, 89:19, 90:9, 93:18, 95:23, 100:10, 101:20
trees [1] - 29:14
TREMBLAY [2] - 50:13, 51:7
tremendous [3] - 4:7, 22:4, 68:4
tremendously [1] - 22:8
trial [1] - 114:12
tried [1] - 85:10
trip [2] - 119:25, 121:8
trips [2] - 54:21, 120:12
trouble [3] - 57:18, 68:15, 126:23
truck [18] - 22:9, 55:21, 56:12, 57:19, 58:10, 58:15, 118:21, 119:4, 120:7, 121:15, 121:23, 121:24, 125:19, 126:3, 126:8, 126:11, 127:11, 128:14
trucking [6] - 54:9, 55:17, 55:25, 56:4, 58:17, 58:24
trucks [19] - 50:25, 54:6, 56:5, 57:5, 58:12, 59:2, 59:6, 120:24, 120:25, 121:2, 121:3, 121:5, 125:13, 125:22, 125:24, 125:25, 126:1, 127:12
true [7] - 10:24, 14:12, 85:10, 103:17, 113:21, 146:3, 147:4
truly [2] - 76:16, 106:6
trust [1] - 21:22
try [5] - 13:13, 34:18, 62:18, 63:2, 98:7
trying [19] - 17:8, 19:10, 24:16, 24:20, 26:10, 46:18, 52:17, 62:18, 64:10, 67:5, 104:14, 106:15, 109:9, 131:6, 131:25, 132:3, 133:10, 133:13, 143:18
Tuffs [1] - 134:5
tune [1] - 81:25
turbine [12] - 10:1, 12:18, 12:20, 13:6, 26:12, 28:6, 28:13, 100:13, 100:15, 100:20, 100:25, 138:6
turbines [5] - 53:3, 92:15, 92:20, 92:21, 100:7
turn [2] - 41:22, 139:9
turning [3] - 58:10, 58:11, 83:20
twice [7] - 14:19, 17:3, 17:4, 17:15, 81:23, 81:25
two [52] - 5:14, 5:16, 5:22, 6:14, 8:25, 9:17, 20:20, 20:22, 28:20, 31:2, 37:14, 51:19, 51:20, 52:7, 54:2, 57:16, 66:13, 68:4, 73:19, 73:20, 74:8, 74:21, 75:1, 79:11, 80:1, 81:2, 81:4, 81:6, 81:17, 85:6, 85:17, 85:20, 91:20, 97:1, 104:22, 107:17, 118:17, 119:3, 119:15, 120:2, 120:21, 121:22, 122:5, 123:13, 124:10, 130:24, 138:4, 139:22, 143:13, 143:14, 143:15
type [17] - 24:4, 37:4, 51:3, 53:9, 65:14, 93:5, 109:21, 110:16, 110:20, 110:25, 111:14, 111:15, 125:13, 135:5, 135:6
types [2] - 33:22, 71:10
typical [7] - 15:5, 21:7, 34:25, 48:9, 74:18, 80:22, 110:2
typically [13] - 9:10, 12:24, 36:7, 36:20, 38:20, 45:16, 83:9, 119:25, 122:21, 124:2, 128:24, 129:19

U

ultimately [1] - 33:11
unavoidable [1] - 54:16
under [32] - 3:3, 10:11, 13:13, 14:10, 17:20, 24:13, 27:9, 36:11, 46:4, 46:7, 47:12, 47:16, 59:22, 60:13, 69:4, 72:4, 76:19, 83:25, 86:19, 95:14, 102:6, 105:11, 105:14, 107:10, 107:22, 107:23, 107:25, 109:1, 109:8, 115:2, 122:14, 123:3
underground [6] - 65:13, 71:5, 120:23, 121:1, 126:19, 127:2
underlining [1] - 11:23
understood [2] - 49:16, 145:10
undertaken [1] - 51:4
undertaking [1] - 99:9
unit [2] - 105:21, 125:24
United [2] - 137:13, 137:23
units [1] - 77:23
University [2] - 117:13, 134:5
unknown [1] - 90:17
unless [1] - 137:17
unnecessarily [1] - 10:19
unquote [1] - 37:9
unrelated [1] - 85:4
untouched [1] - 108:5
unturned [1] - 102:22
unusual [5] - 9:13, 25:17, 46:18, 46:23, 55:21
unusually [3] - 9:8, 10:12, 10:19
up [74] - 2:2, 4:13, 5:2, 7:1, 8:11, 11:10, 11:25, 13:21, 16:19, 16:24, 20:24, 21:2, 22:7, 22:12, 22:21, 29:14, 32:11, 33:3, 34:7, 36:11, 39:13, 40:19, 49:11, 50:25, 52:8, 55:2, 56:14, 57:22, 58:2, 58:7, 59:7, 62:20, 72:19, 73:4, 75:21, 81:24, 83:10, 84:6, 84:20, 85:6, 85:13, 85:24, 90:19, 91:2, 92:17, 93:2, 93:6, 93:12, 93:14, 95:2, 97:7, 97:9, 101:10, 104:5, 106:22, 107:20, 111:7, 112:6, 114:6, 115:9, 121:5, 125:7, 125:18, 127:1, 127:16, 128:23, 129:8, 129:15, 129:23, 131:6, 140:3, 143:8, 143:18, 144:19
urea [1] - 49:3
URI [1] - 76:3
US [1] - 95:17
usage [2] - 48:11, 51:24
uses [7] - 11:21, 29:3, 91:20, 92:4, 92:6, 92:25, 93:1
Utility [7] - 50:3, 73:8, 73:11, 79:23, 90:11, 91:5, 94:17
utility [2] - 82:4, 82:22
utilize [2] - 51:10, 100:17

V

vacuum [3] - 12:22, 28:19, 28:22
Valley [1] - 40:13
value [1] - 142:11
valve [10] - 15:8, 15:9, 22:18, 87:22, 101:22, 112:6, 112:14, 112:21, 114:1, 115:25
valves [15] - 12:25, 15:20, 21:11, 21:12,

21:16, 21:17, 22:3, 22:7, 22:16, 22:23, 23:20, 26:6, 28:11, 101:20, 101:21
vapor [5] - 35:14, 76:17, 82:7, 82:11, 82:15
vaporization [1] - 88:6
variance [4] - 6:1, 103:24, 112:25, 113:13
variances [1] - 5:21
variations [1] - 48:17
variety [1] - 135:9
vehicle [2] - 59:10, 126:6
vehicles [7] - 55:23, 60:18, 61:4, 128:11, 129:19, 129:20, 129:23
velocity [1] - 36:19
vendor [1] - 106:5
vendors [3] - 101:13, 104:7, 104:8
vent [5] - 28:16, 50:18, 100:10, 102:2
vented [1] - 28:15
venting [1] - 29:1
vents [1] - 21:13
verbal [1] - 4:23
Verdi [1] - 2:15
verify [1] - 73:24
versions [1] - 85:25
versus [1] - 19:12
vertically [1] - 36:19
vessel [5] - 78:5, 81:14, 81:15, 81:16, 81:17
vessels [4] - 74:21, 81:8, 81:9, 85:20
vibration [3] - 109:23, 111:17, 111:19
VICE [4] - 23:25, 24:10, 24:24, 25:3
Vice [1] - 2:4
vicinity [3] - 71:18, 84:10, 84:20
Village [1] - 54:18
village [1] - 22:11
vine [1] - 106:1
vinyl [1] - 29:7
violation [2] - 1:24, 10:17
violations [1] - 113:11
virgin [1] - 86:2
virtually [1] - 108:5
voided [1] - 57:16
volatilize [1] - 82:20
volume [2] - 119:2, 119:7
volumes [2] - 120:11, 121:20

W

wait [1] - 61:17
waiting [3] - 33:2, 33:23, 69:6
waiver [3] - 10:21, 18:25, 103:17
wake [1] - 110:1
walk [1] - 118:6
wall [2] - 22:10, 106:17
Wallum [2] - 3:5, 77:13
warning [1] - 125:20
warranted [1] - 82:12
washing [1] - 92:15
Waste [1] - 70:25
waste [8] - 72:12, 72:16, 75:9, 85:19, 86:19, 88:9, 88:11, 131:25
watch [1] - 89:23
water [96] - 8:2, 50:17, 62:3, 62:10, 64:8, 64:13, 64:15, 64:18, 64:24, 65:13, 67:21, 67:25, 69:8, 69:19, 70:15, 70:19, 70:20, 70:24, 71:10, 71:14, 71:16, 72:7, 72:12, 72:16, 73:8, 73:13, 73:20, 73:22, 73:25, 74:4, 74:19, 75:8, 75:9, 75:12, 75:13, 75:24, 75:25, 76:4, 76:15, 76:25, 77:6, 77:12, 77:15, 78:16, 78:17, 79:10, 79:14, 79:17, 79:22, 80:14, 80:18, 80:19, 80:22, 80:25, 81:11, 82:20, 83:25, 84:20, 85:2, 85:3, 86:2, 86:3, 86:14, 86:19, 88:12, 88:19, 88:21, 88:23, 89:19, 90:2, 90:6, 90:12, 90:13, 90:16, 90:24, 90:25, 91:20, 91:25, 92:5, 92:7, 92:9, 92:12, 92:19, 92:20, 93:18, 93:23, 95:24, 96:2, 96:3, 96:4, 96:11, 96:12, 97:15, 101:4, 129:11
Water [9] - 70:25, 73:6, 73:7, 73:10, 73:17, 78:22, 79:5, 79:19, 93:9
ways [2] - 28:20, 57:1
weather [2] - 57:16, 130:8
website [3] - 6:9, 6:14, 144:18
week [4] - 2:3, 81:23, 82:1, 92:14
weekday [1] - 118:17
weekly [1] - 81:23
weeks [1] - 76:1
weigh [1] - 93:9
weight [7] - 110:3, 111:7, 126:19, 127:2, 127:6, 127:8, 127:12
weighted [1] - 13:22
weird [1] - 85:24
welfare [3] - 135:23, 136:24, 138:25
wellhead [3] - 71:13, 77:25, 87:3
wells [1] - 84:7
west [1] - 123:18
wetland [7] - 62:17, 63:1, 63:4, 63:6, 64:7, 64:11, 65:7
wetlands [10] - 62:15, 62:16, 63:3, 63:9, 64:6, 64:9, 68:21, 68:22, 69:9, 69:18
whatnot [1] - 32:16
wheel [1] - 126:7
wheeler [2] - 58:5, 125:14
wheelers [1] - 57:20
whereas [2] - 15:4, 121:13
WHEREOF [1] - 147:6
whichever [2] - 78:20, 122:19
whispering [1] - 18:19
whole [16] - 16:3, 17:8, 26:13, 33:14, 36:14, 47:23, 64:17, 71:3, 73:3, 91:1, 95:1, 96:8, 97:3, 100:17, 109:6, 109:8
wide [1] - 127:3
widened [1] - 59:8
wind [4] - 10:1, 47:8, 107:24, 108:20
windows [1] - 17:12
winter [2] - 71:19, 76:24
wintertime [4] - 51:23, 57:24, 58:1, 59:11
wish [1] - 118:9
wishes [2] - 7:12, 35:8
withe [1] - 57:10
witness [20] - 8:11, 8:15, 23:21, 30:10, 31:20, 31:23, 44:25, 45:3, 53:14, 53:17, 97:21, 97:22, 97:24, 116:24, 117:2, 127:19, 130:19, 133:20, 133:25
WITNESS [9] - 8:19, 32:2, 45:7, 53:21, 98:3, 117:6, 127:23, 133:24, 147:6
witnesses [9] - 6:17, 8:9, 96:15, 97:13, 97:19, 131:11, 131:16, 143:13, 143:14
wonder [1] - 127:24
wondered [1] - 109:2
wonderful [1] - 91:18
wondering [5] - 13:22, 52:7, 125:20, 126:12, 143:20
wood [2] - 29:19, 29:23
woods [3] - 19:22, 29:14, 95:20
Woods [1] - 2:5
WOODS [110] - 2:14, 13:17, 14:10, 14:15, 14:20, 14:24, 15:7, 15:16, 15:24, 16:4, 16:8, 16:21, 17:2, 17:8, 17:14, 17:23, 18:3, 18:10, 18:13, 18:16, 18:21, 19:9, 19:20, 19:23, 20:4, 20:7, 20:14, 29:11, 29:25, 30:6, 39:8, 39:13, 39:17, 39:22, 40:1, 40:5, 40:15, 40:25, 41:7, 41:14, 41:19, 42:2, 52:12, 52:17, 52:25, 53:3, 53:6, 53:10, 58:14, 58:20, 59:2, 59:6, 59:16, 67:3, 68:15, 86:22, 87:8, 87:11, 87:14, 87:16, 87:21, 88:2, 88:6, 88:9, 88:25, 89:4, 89:9, 90:6, 90:10, 90:18, 91:12, 91:17, 92:11, 93:3, 96:7, 111:23, 112:18, 112:20, 113:2, 113:4, 113:15, 113:25, 114:11, 114:14, 115:5, 115:15, 115:18, 115:21, 116:5, 132:9, 139:12, 139:25, 140:15, 141:2, 141:13, 141:16, 141:23, 142:3, 142:16, 142:19, 142:22, 142:25, 143:5, 145:4, 145:7, 145:11, 145:15, 145:19, 145:24, 146:2
word [8] - 112:22, 113:16, 113:19, 116:1, 116:3, 116:5
workers [1] - 121:11
works [3] - 77:3, 105:8, 106:6
Works [1] - 49:25
worry [1] - 10:3
worse [1] - 17:18
worst [5] - 72:4, 121:14, 122:17, 142:10, 142:13
worth [1] - 26:21
wrap [2] - 105:24, 115:23
wrapping [3] - 102:12, 106:1, 109:20
writing [1] - 12:13
written [3] - 4:23, 8:6, 104:25

Y

yard [1] - 56:12
yards [1] - 47:9
year [9] - 116:21, 118:12, 119:9, 128:4, 140:8, 140:10, 141:9, 141:11
years [22] - 29:14, 44:5, 68:8, 68:14, 70:1, 72:4, 82:10, 90:23, 98:9, 98:21, 107:13, 117:13, 118:25, 127:5, 128:5, 129:5, 130:9, 130:12, 134:7, 137:13, 142:2, 142:4
yourself [2] - 99:9, 127:25

Z

zero [3] - 7:4, 14:22, 125:17
zone [2] - 47:13, 83:7
zoning [3] - 11:5, 45:18, 114:11
Zoning [2] - 5:19, 5:21