

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

PIASA MOTOR FUELS, INC.,)	
)	
Petitioner,)	
)	
v.)	PCB 14-131
)	(UST Appeal)
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

NOTICE OF FILING

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PLEASE TAKE NOTICE that I have today caused to be filed RESPONDENT'S POST-HEARING BRIEF with the Illinois Pollution Control Board, a copy of which is served upon you.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY,

Respondent,

Dated: October 27, 2014

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BY:



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RESPONDENT'S POST-HEARING BRIEF

NOW COMES the Respondent, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, by and through its attorney, Special Assistant Attorney General Scott B. Sievers, and for the Respondent's Post-Hearing Brief states the following:

I. INTRODUCTION

In this action, the Petitioner, Piasa Motor Fuels, Inc. ("Piasa"), contends the Respondent, Illinois Environmental Protection Agency ("Illinois EPA"), incorrectly modified its Stage 2 Site Investigation Plan and Budget. However, because Piasa drilled below the groundwater table during the course of its Stage 1 soil investigation and failed to identify site-specific conditions warranting such drilling as required by Section 734.315 of this Board's regulations, Illinois EPA properly modified Piasa's submittal, and Piasa has not met its burden to prove that its submittal did not violate this regulation. Consequently, Illinois EPA's decision should be affirmed.

II. STANDARD OF REVIEW

Section 57.3 of the Environmental Protection Act, 415 ILCS 5/1 *et seq.*, provides for the establishment of the Illinois Leaking Underground Storage Tank Program, which is to be administered by the Office of the State Fire Marshal and the Respondent, the Illinois

Environmental Protection Agency (“Illinois EPA”). 415 ILCS 5/57.3. Illinois EPA is charged by Board regulation with conducting a financial review of submitted plans and budgets, and that review includes assuring that costs associated with materials, activities, and services “must not be used for corrective action activities in excess of those necessary to meet the minimum requirements of the Act and regulations.” 35 Ill. Adm. Code 734.510(b). Section 57.7(c)(4) of the Act provides, in pertinent part, that “[a]ny action by the Agency to disapprove or modify a plan or report ... shall be subject to appeal to the [Pollution Control] Board in accordance with the procedures of Section 40.” 415 ILCS 5/57.7(c)(4).

The standard of review under Section 40 of the Act is whether the application, as submitted to the Agency, would not violate the Act and Board regulations. *Freedom Oil Co. v. Illinois EPA*, PCB No. 10-46, slip op. at 13 (Aug. 9, 2012). In appeals of final Agency determinations, the burden of proof rests upon the petitioner. *Id.* The standard of proof in LUST appeals is the preponderance of the evidence, meaning that a proposition is proved by a preponderance when it is more probably true than not. *Id.* The Pollution Control Board’ review generally is limited to the record before the Agency at the time of its determination. *Evergreen FS, Inc. v. Illinois EPA*, PCB No. 11-51, op. at 14 (June 21, 2012). The Agency’s denial letter frames the issue. *Id.*

III. STATEMENT OF FACTS

A. The Administrative Record

On July 21, 2006, Illinois EPA received a 45-Day Report from Piasa Motor Fuels, Inc. (“Piasa”) that included a Stage 1 Site Investigation Plan and Budget certification. (Adm. R. at 001.)

In a letter dated July 31, 2006, Illinois EPA wrote that, “[a]t a later time, the Illinois EPA will conduct a full technical review of the 45-Day Report and any other report submitted to Section 57.6 of the Act and 35 Ill. Adm. Code 734.Subpart B, in conjunction with any other plan or report selected for review (35 Ill. Adm. Code 734.505).” (Adm. R. at 001.) The letter further states, “Pursuant to your certification, the Stage 1 Site Investigation Plan is approved and must be conducted in accordance with 35 Ill. Adm. Code 734.315. ... You must proceed with the Stage 1 site investigation in accordance with 35 Ill. Adm. Code 734.315.” (Adm. R. at 001.) Illinois EPA further wrote that “a site investigation plan and budget for the subsequent stage of investigation (including the results of the Stage 1 site investigation and a summary of actual costs) or a site investigation completion report (if the extent of the contamination is defined) must be submitted within 90 days of the date of this letter.” (Adm. R. at 001-002.)

Five and a half years later, on January 11, 2012, Illinois EPA received a Stage 3 Site Investigation Plan & Budget from CSD Environmental Services, Inc. (“CSD” or “CSD Environmental Services”) prepared on behalf of Piasa. (Adm. R. at 003-230.)

In a letter received by Illinois EPA on May 15, 2012, Joseph W. Truesdale of CSD wrote Illinois EPA in part as follows:

Dear Mr. Kaiser

This letter is submitted in regards to the Stage 3 Site Investigation Plan and Budget and Stage 1 and 2 actual costs received by the Illinois Environmental Protection Agency on January 11, 2012 from CSD Environmental Services, Inc. (CSD) on behalf of Piasa Motor Fuels (Piasa). At this time, CSD would like to request that the Agency suspend their [sic] review of these documents until receipt of a revised Stage 2 Plan and Budget currently being completed for submittal to the Agency.

(Adm. R. at 231.)

On March 14, 2014, Illinois EPA received a Stage 2 Site Investigation Plan & Budget from CSD prepared on behalf of Piasa. (Adm. R. at 232-352.)

On March 25, 2014, Karl Kaiser of Illinois EPA reviewed Piasa's Stage II Plan & Budget.

(Adm. R. at 353.) Kaiser noted that

[t]his submittal was a follow up to the Stage III Plan and budget that they withdrew 5/15/2012. The Plan was withdrawn due to the fact that no Stage II plan & budget was ever submitted. The Stage III included Stage I and II actual costs. At the time they were notified that the Stage I and II activities included soil sampling below the water table that needed to be removed.

This submittal did not remove such costs and was just a Stage II Plan & Budget with original costs.

I contacted them on these issues and they requested verification of such denial. The issue of samples below the water table was discussed in the 3/25/2014 managers meeting. They confirmed my understanding that Stage I samples below the water table were not warranted along with Stage II denial of samples below the water table.

The plan will be modified to exclude such activities and costs. Both Stage I and II.

(Adm. R. at 353.)

On April 8, 2014, Kaiser continued his review, noting in pertinent part as follows:

* Stage III plan & budget (with Stage I and Stage II actual costs budgets included) was received by the Agency 1/11/2012. Upon initial review the consultants (CSD) were advised that a Stage II plan & budget were never submitted for Agency review. Due to this fact the Agency could not adequately review this submittal. It was also noted that the Stage I and Stage II actual costs budgets included costs for soil samples that were taken below the water table. It was agreed that (CSD) would submit a letter to withdraw this submittal until such time that the Stage II

plan & budget could be submitted for review. They would also address the issue of the samples below the water table. Average depth to groundwater was approx. 8.8 ft. The report identified sample below water table.

* Letter dated 5/7/2012 received by Agency 5/15/2012 was submitted by consultants directing the Agency that they wanted to withdraw the Stage III plan & budget, along with the Stage I and Stage II actual costs budgets. Stage II plan & budget received by Agency 3/14/2014.

...

* The Stage II plan & budget basically outlined the activities performed as noted in the Stage II actual costs budget previously submitted with the Stage III plan & budget submittal. The costs associated with sampling below the water table were still included in the budget. No Stage 1 actual costs were included.

* It was determined that the plan would be modified to exclude sampling below the water table, The budget denied due to the above modification.

(Adm. R. at 354-355.)

Also on April 8, 2014, Illinois EPA wrote Piasa informing it that Illinois EPA had conditionally approved the Stage 2 Site Investigation Plan with modifications. (Adm. R. at 356.)

Illinois EPA wrote Piasa in pertinent part as follows:

The Illinois EPA requires modification of the plan; therefore, the plan is conditionally approved with the Illinois EPA's modifications. The Illinois EPA has determined that the modifications listed below are necessary to demonstrate compliance with Title XVI of the Act and 35 Ill. Adm. Code 734 (Sections 57.7(a)(1) and 57.7(c) of the Act and 35 Ill. Adm. Code 734.505(b) 734.510(a)).

1. It is the Illinois EPA's understanding that the activities noted in this plan have already been completed, without prior Illinois EPA approval. Please be advised that Illinois EPA does not approve of the soil sampling that was performed below the water table. It has not been demonstrated that such samples were warranted as part of Stage I and such samples are specifically prohibited in Stage II. Therefore the Illinois EPA is modifying the plan to exclude all activities associated with such sampling. The associated budgets must reflect the same exclusion.

The actual costs for Stage 1 were not submitted to the Illinois EPA. Please be advised that budget forms reporting the actual costs must be submitted to the Illinois EPA for review and approval, rejection, or modification prior to receiving payment from the Fund for any related costs (Sections 57.7(a)(2) and 57.7(c) of the Act and 35 Ill. Adm. Code 734.505(b) and 734.510(b)). **Please be advised that pursuant to the above modification the Stage I actual costs should not**

include costs associated with soil sampling below the water table.

In addition, the current Stage II budget/Actual Costs are rejected for the following reasons(s) listed below (Sections 57.7(a)(2) and 57.7(c) of the Act and 35 Ill. Adm. Code 734.505(b)). **Please be advised that pursuant to the above modification the Stage II Budget/Actual Costs cannot be assessed at this time due to the fact that it includes costs associated with soil sampling below the water table that the Illinois EPA has rejected.**

(Adm. R. at 356-357 (emphasis in original).)

On May 16, 2014, Piasa filed its Petition for Review. While it disputed Illinois EPA's assertions concerning Stage 1, Piasa stated that it "does not challenge the modification made as to soil samples in Stage 2 activities. The Agency was correct in stating soil samples from below the water table 'are specifically prohibited in Stage 2.' See Section 734.320(a)(1)."

B. The Hearing

On September 10, 2014, Hearing Officer Carol Webb conducted a hearing in this action in Springfield, Illinois. (Tr. at 1.) Witnesses Joseph Truesdale, Brandon Hargrave, Karl Kaiser, and Shane Thorpe testified in that order. (Tr. 3:2-15.) Five exhibits were admitted into evidence. (Tr. at 3:17-24.)

1. Joseph Truesdale

Joseph Truesdale testified that he acts as the managing agent and professional engineer and senior professional hydrogeologist for CSD Environmental Services. (Tr. at 13:20-23.) Truesdale testified that Brandon Hargrave worked for CSD as a staff geologist under Truesdale's professional review as a professional geologist. (Tr. at 38:11-16; 61:3-5.)

Truesdale stated the depth while drilling was not a determination of the location of the groundwater table. (Tr. at 35:19-22.) Truesdale also stated the term groundwater depth in boring means the location in each boring where groundwater was observed physically by the geologist

evaluating soil conditions and does not define where the water table is. (Tr. at 52:2-10.) Truesdale said they typically do not take the measurements necessary to record a value for the depth after drilling portion of the boring logs. (Tr. at 70:1-12.)

Truesdale stated the groundwater table is dynamic and changes daily based upon differences in atmospheric pressure. (Tr. at 36:6-7.) Truesdale said that, to determine the location of the water table, a monitoring well would be needed to measure the depth of the water at that location at that point in time. (Tr. at 36:9-17.) “We rely on the monitor wells since that is the only means of determining the water table,” Truesdale testified. (Tr. at 70:1-14.) Truesdale pointed to the groundwater elevation data submitted by Piasa in two tables in its Stage 3 Site Investigation Plan and Budget as identifying accurate water table depths. (*See* Tr. at 53:15-56:9.)

Truesdale testified that monitoring wells are not present when a Stage 1 investigation is started. (Tr. at 68:9-11.) Truesdale testified that monitoring wells typically are not in place when borings are being drilled at the site in a Stage 1 investigation; that monitoring wells are the only means to accurately measure the groundwater table; and that, when his staff is on-site boring in the course of a Stage 1 investigation, they do not know and cannot know where the groundwater table is. (Tr. at 74:5-75:20.) Truesdale testified that Hargrave would not have been able to determine where the water table was at all at that point. (Tr. at 72:22-73:3.)

When questioned about site-specific conditions warranting drilling below the groundwater table when the location of the groundwater table is not known, Truesdale answered, “I don’t care where it [the groundwater table] is in Stage 1 under a typical LUST site. Site-specific conditions with glacial geology, with a typical LUST site in Illinois, always provides site-specific conditions that dictate drilling below the water table.” (Tr. at 84:19-85:11.) In Truesdale’s view, the limitation for drilling below the groundwater table only if site-specific conditions warrant would

never apply to CSD when drilling borings in a Stage 1 investigation: “In my opinion, it does not need to apply at a typical LUST site in Illinois in a glacial depositional environment ever.” (Tr. at 76:13-18.)

Truesdale was questioned about a table of Stage 1 data in Piasa’s Stage 3 submission compared to a Stage 1 data table in its Stage 2 submission that omitted language from the Stage 3 submission noting certain results were “collected below the depth at which groundwater was observed in the associated soil boring.” (Tr. at 77:22-80:18.) Truesdale testified “[t]hey have the same information presented differently to – in an attempt to illustrate to the Agency that it was ridiculous to exclude samples that were collected and analyzed beneath a depth where groundwater was observed in a boring [f]or purposes of a risk assessment.” (*Id.*)

2. Brandon Hargrave

Piasa served Illinois EPA with a notice on August 11, 2014 for Brandon Hargrave to be made available for testimony at the hearing in this action, and Piasa called Hargrave as a witness in its case in chief. (Tr. at 88:13-20.)

Hargrave testified that he is employed by Illinois EPA, where he works in the solid waste permit section of the Bureau of Land. (Tr. at 88:21-89:1; 100:17-24.) Hargrave has a geology degree from Eastern Illinois University. (*See* Tr. at 101:7-9.) Before working for Illinois EPA, Hargrave was employed by CSD as Staff Geologist. (Tr. at 89:2-6; 101:1-6.) Hargrave was CSD’s geologist in the field. (Tr. at 101:24-102:02.) “I was generally their field point technician for any of these job sites that we would go to that came to the door that required actual field analysis, field expertise,” Hargrave testified. (Tr. at 101:10-15.) Hargrave was the one who was there when borings were taken and when borings were analyzed in the field. (Tr. at 102:3-8.) Hargrave testified that he has been involved in “maybe 40” LUST projects in his career. (Tr. at

95:16-22.) Hargrave testified he was familiar with the Piasa Motor Fuels, Inc. site from having been there. (Tr. at 89:7-15.) He was present at the location of the tank pull, and Hargrave was the one who physically extracted the soil samples. (Tr. at 91:6-8; 99:16-24.)

Hargrave testified that “the purpose of borings is to go in and not only catalogue the soil types, but we’re searching for evidence of contamination in those borings. When the borings come up, I would log the soil types, log any evidence of contamination and potentially take samples.” (Tr. at 103:9-15.) The goal of conducting borings at a LUST site is to determine the extent of the horizontal and vertical contamination. (Tr. at 104:10-13.) When conducting borings, Hargrave also was pulling up soil samples known as cores. (Tr. at 104:14-20.) To do so, a series of four-foot steel tubes would be driven into the ground, a four-foot section then would be removed containing an inner liner that would trap the soil cores. (*See* Tr. at 105:10-106:21.) The inner liner would be pulled out, opened up, and the soil cores then set out on a table for observation. (*See* Tr. at 105:21-106:8.) Hargrave would then log the soil types, normally using a PID, which is an electronic field screening device, every foot or so. (Tr. at 106:8-13.) Hargrave would make a visual determination of the soil types based upon his training while his fellow CSD employee ran the mechanical equipment to take further soil samples. (Tr. at 107:2-10.) The normal process, and the one most likely applied at the Site, would be for Hargrave to be analyzing a four-foot core while his co-worker drilled or bored an additional and deeper four-foot core. (Tr. at 107:11-21.) The drilling equipment used for the borings could go 60 feet deep. (Tr. at 104:21-105:9.)

Hargrave said that how far down they would typically bore at a LUST site would depend, and that his analysis of the cores and the contamination in them might have some bearing as to how deep they might drill. (*See* Tr. at 107:22-108:10.) Hargrave said that, in a typical boring, there might be no evidence of contamination in the first four feet, but signs of contamination may

be found in the next two or three rods. (Tr. at 108:14-18.) “Then you may go, you know, even deeper until you’re quote, unquote clean again. That’s kind of a typical – a typical boring,” Hargrave testified. (Tr. at 108:18-21.) Hargrave typically would stop boring when he reached clean samples. (Tr. at 108:22-24.) The goal in conducting the borings was to determine the full vertical extent of contamination. (Tr. at 109:1-4.)

Q. If you pull a core and there is still some odor, slight or otherwise, in that core, at the very bottom of this core, the farthest down you bore to date, do you take further steps at that point?

A. Yes.

Q. What’s a further step?

A. You might advance one more four-foot rod to see if the soil will clean up at some point after that.

Q. If that because you are trying to determine the full extent vertically of contamination?

A. yes.

(Tr. at 109:22-110:11.)

Hargrave prepared the boring logs and monitoring log completion reports within Piasa’s Stage 2 Site Investigation Plan and Budget. (Tr. at 110:12-111:7.) As shown in a table summarizing Stage 1 Site Investigation Borings & Soil Samples as reported in Piasa’s Stage 2 Site Investigation Plan, all of the twelve (12) Stage 1 borings were drilled to twenty (20) feet except for one drilled to sixteen (16) feet. (Tr. at 111:8-112:3; Adm. R. at 240-241.)

Hargrave testified that the label “GW Depth in Boring” in the table “means groundwater depth in boring.” (Tr. at 112:4-15.) Hargrave testified that is when he encountered the groundwater table. (Tr. at 112:16-18.) When asked where the groundwater table was for boring B-7 described in Piasa’s Stage 2 Site Investigation Plan and Budget, Hargrave answered “Nine feet”—the figure reported as the depth while drilling on the form under the heading “GROUNDWATER DATA” that also included CSD Environmental Services, Inc.’s logo. (Tr. at

126:10-20; Adm. R. at 324.) Hargrave explained how he determined the groundwater table in that boring:

A. Inside the boring, that's where the – you kind of have a change from, you know, a dryer soil into a wetter soil. That's where you kind of – that's where you kind of surmise there might be a groundwater table right there. That's as you are doing it in the field as I'm logging the borings, you might go from a period of dry soil to wet soil, in which case I will denote that.

Q. And would that be the case throughout your boring logs that if you indicated the depth while drilling, that indicates you've determined that's where the groundwater table is through analyzing cores?

A. Yes. That's where we encountered moisture, yes.

(Tr. at 126:22-127:12.) Piasa's counsel asked Hargrave on direct examination about words on a boring log:

Q. In the lower left-hand corner, it says, "Groundwater data, depth while drilling, ten feet"?

A. Yes.

Q. So what does that mean that you noticed at ten feet?

A. That means that we encountered the groundwater table at a depth of ten feet.

Q. The groundwater table?

A. Yes.

Q. Could you give me a definition for groundwater table?

A. The depth below ground surface at which groundwater – where you generally encounter groundwater.

(Tr. at 96:22-97:15; *see* Adm. R. at 320.)

A column on boring logs labeled "OVA/PID" normally would contain numbers indicating PID readings, but instead boring logs in Piasa's Stage 2 Site Investigation Plan include entries for "odor," "slight" for slight odor, and "ND" for no detection, with "odor" indicating most likely the presence of a gasoline smell. (Tr. at 95:2-4; 114:9-21; 115:1-16; Adm. R. at 320-331.) Hargrave testified that it was not standard practice to use such descriptors: "[I]t's pretty rare to see this. Usually, you will see a series of number recordings by a PID, a photoionization detector." (Tr. at 95:23-96:6.) Hargrave explained that

normally, this column would have a series of numbers in it as if taken by some equipment. We didn't have a working piece of equipment that day called the PID machine. So you will see these – you will see these words, “slight in odor.” That is me using my, you know, visual and olfactory sense of – I basically had to look and smell the soil to try to see if it was contaminated or not.

(Tr. at 95:8-15.) Hargrave testified that he determined these entries “by my nose. I literally smelled each foot of soil core that I examined.” (Tr. at 114:22-24.) The entries in the OVA/PID column would indicate to Hargrave where contamination might begin, continue, and then fade off and end. (Tr. at 115:21-116:1.) Hargrave testified that, on a boring log, the “BH” initials were his. (See Tr. at 94:7-24; Adm. R. at 320.)

3. Karl Kaiser

Karl Kaiser testified that he is an Environmental Protection Specialist III with Illinois EPA. (Tr. at 148:17-20.) His duties include reviewing, approving, denying, and modifying budget plans involved in the Leaking Underground Storage Tank (“LUST”) program. (Tr. at 147:23-148:3.) Kaiser has reviewed project reports for more than twenty years. (Tr. at 144:24-145:4.) Kaiser also works as a liaison between Illinois EPA and the Office of the State Fire Marshal regarding record retrievals, removal logs, or anything project managers might need during the review process. (Tr. at 148:8-16.) Kaiser has worked for Illinois EPA for approximately 23 years, all within the LUST section. (Tr. at 148:21-149:7.) Kaiser has a master's degree in environmental studies. (Tr. at 148:4-7.) Kaiser is an Illinois EPA project manager, and the project manager assigned to the Piasa site. (Tr. at 131:11-14, 149:8-13.)

Prior to receiving its Stage 3 Site Investigation Plan and Budget in 2012, Kaiser last received a submittal from Piasa in 2006. (Tr. at 150:20-151:7.) Illinois EPA received no other submittals from CSD Environmental Services, Inc. for the Piasa Motor Fuels, Inc. site in the interim. (Tr. at 153:23-4.)

Upon his initial review of Piasa's Stage 3 Site Investigation Plan and Budget, Kaiser became aware that Piasa had never submitted a Stage 2 Plan and Budget to Illinois EPA for review and approval. (Tr. at 153:01.) Kaiser subsequently had conversations with CSD's personnel. (Tr. at 152:10-14.) Kaiser called Joseph Truesdale and explained to him that, due to a lack of a Stage 2 Plan and Budget, he could not review the Stage 3 Site Investigation Plan and Budget. (Tr. at 153:5-15.) Kaiser suggested to Truesdale that review of the Stage 3 plan and budget be suspended to give them the opportunity to submit a Stage 2 plan and budget "so that it would bring things back into the normal progression of submittal of the plans and reports to the Agency." (Tr. at 153:16-22.)

After receiving Piasa's Stage 3 plan and budget, Kaiser received a letter from CSD requesting that review of the Stage 3 plan and budget be suspended until receipt of a Stage 2 plan and budget. (Tr. at 151:8-152:3.) Kaiser testified that he believed the conversations with Truesdale resulted in CSD's May 7, 2012 letter requesting that Illinois EPA suspend its review of the Stage 3 plan and budget. (Tr. at 152:15-18.) After receiving Piasa's May 7, 2012 request that Illinois EPA suspend its review of the Stage 3 plan and budget, Illinois EPA did suspend its review. (Tr. at 151:22-152:6.)

Illinois EPA ultimately received a Stage 2 Site Investigation Plan and Budget. (Tr. at 154:6-9.) Piasa's submittal did not include any actual costs incurred in Stage 1. (Tr. at 159:23-160:2.) The submittal, though, included sample results below the groundwater table. (Tr. at 159:6-11.) "It's my understanding that site-specific conditions need to be present to warrant them drilling below the water table and taking samples," Kaiser testified. (Tr. at 161:23-162:2; *see also* Tr. at 158:24-159:5.) Kaiser further testified, "I did not see anything that would require them to take samples below the groundwater table in this particular instance." (Tr. at 139:18-20.) Kaiser

testified that no site-specific conditions were set forth in the submittal indicating to him site-specific conditions warranting boring below the groundwater table. (Tr. at 159:12-16.) Further, no site-specific conditions were called to Kaiser's attention in the submittal in which CSD or Piasa contended site-specific conditions warranted boring below the groundwater table. (Tr. at 147:16-22; 159:17-22.) Kaiser testified,

[w]hen looking at – when reviewing a particular report like this and looking at compliance like this, I would look for a statement within the submittal of the extenuating circumstances or the reasoning why they would have wanted to stay below the water table and that was not provided in the submittal.

(Tr. at 160:12-18.) “They need to provide me with their reasoning why they had site-specific conditions that warrant them taking samples below the water table,” Kaiser testified. (Tr. at 162:7-10.) Kaiser said he would look for reasoning set forth separately from the data. (Tr. at 162:11-13.)

Kaiser recorded in his notes an average depth to groundwater of approximately 8.8 feet, which he calculated from the information provided by Piasa in the submittal. (Tr. at 135:10-136:4-13.) Kaiser testified that the groundwater table level at the Site to be 8.8 feet and not the 9.5 feet reported from monitoring wells. (Tr. at 137:11-138: 18.) Kaiser used the depth while drilling to calculate the 8.8 foot average. (Tr. at 138:21-22.) Kaiser testified that Illinois EPA used the depth while drilling data. (Tr. at 138:24-139:03.)

Kaiser testified that, during a manager's meeting, they determined that there were no site-specific conditions in these particular circumstances that warranted the sampling below the groundwater table. (Tr. at 141:7-12.) Kaiser testified that it was possible that site-specific conditions could exist warranting boring below the groundwater table, but that he had not encountered them yet. (Tr. at 147:11-15.)

Kaiser testified that he drafted Illinois EPA's April 8, 2014 decision letter, but his immediate supervisor, Michael Lowder, signed it pursuant to agency protocol. (Tr. at 156:9-157:3.) Kaiser testified that he relied upon Section 734.315 of the Board's regulations concerning Stage 1 site investigations in reaching the decision. (Tr. at 158:4-10; *see* Tr. at 158:11-23.)

Kaiser testified that Piasa's 45-day report and its amended 45-day report were not included in the administrative record because he already had seen a Stage 3 Site Investigation Plan and Budget that documented Stage 1 and Stage 2 activities. (Tr. at 146:14-18.) "The particular report that I was reviewing at the time was a Stage 2 Plan and Budget because they had neglected to ever submit that particular report prior to the Stage 3 submittal." (Tr. at 146:19-23.) Kaiser did not rely upon either the 45-day report or the amended 45-day report in reaching his decision on the Stage 2 site inspection and budget. (*See* Tr. at 147:6-10.)

4. Shane Thorpe

A senior project manager, Shane Thorpe has been employed by CSD since 2007. (Tr. at 163:21-164:3.) Thorpe signed Piasa's Stage 2 Site Investigation Plan and Budget as a consultant. (Tr. at 164:5-165:2, 167:8-11.) The Stage 2 Site Investigation Plan and Budget reports, among other things, results from a Stage 1 investigation. (Tr. at 165:3-7.) The Stage 1 investigation involved geologist and then-CSD employee Brandon Hargrave physically going out to the Piasa site and conducting an investigation. (Tr. at 165:8-13, 166:4-6.) Borings were taken at the site by either Hargrave or a co-worker. (Tr. at 165:14-24.) Thorpe was not on-site when the borings were taken. (Tr. at 166:1-3.)

IV. ARGUMENT

PIASA FAILED TO PROVE ITS SUBMITTAL DID NOT VIOLATE THE ACT AND REGULATIONS, AS ITS SUBMITTAL REPORTED BORINGS DRILLED BELOW THE GROUNDWATER TABLE WITHOUT IDENTIFYING SITE-SPECIFIC CONDITIONS WARRANTING SUCH DRILLING.

A. SECTION 734.315 OF THE BOARD'S REGULATIONS ONLY PROVIDE FOR STAGE 1 SOIL INVESTIGATION BORINGS BELOW THE GROUNDWATER TABLE IF SITE-SPECIFIC CONDITIONS WARRANT SUCH DRILLING.

Section 734.315 of this Board's regulations provides in pertinent part as follows:

The Stage 1 site investigation must be designed to gather initial information regarding the extent of on-site soil and groundwater contamination that, as a result of the release, exceeds the most stringent Tier 1 remediation objectives of 35 Ill. Adm. Code 742 for the applicable indicator contaminants.

a) The Stage 1 site investigation must consist of the following:

1) Soil investigation.

A) Up to four borings must be drilled around each independent UST field where one or more UST excavation samples collected pursuant to 734.210(h), excluding backfill samples, exceed the most stringent Tier 1 remediation objectives of 35 Ill. Adm. Code 742 for the applicable indicator contaminants. One additional boring must be drilled as close as practicable to each UST field if a groundwater investigation is not required under subsection (a)(2) of this Section. **The borings must be advanced through the entire vertical extent of contamination, based upon field observations and field screening for organic vapors, provided that borings must be drilled below the groundwater table only if site-specific conditions warrant.**

B) Up to two borings must be drilled around each UST piping run where one or more piping run samples collected pursuant to Section 734.210(h) exceed the most stringent Tier 1 remediation objectives of 35 Ill. Adm. Code 742 for the applicable indicator contaminants. One additional boring must be drilled as close as practicable to each UST piping run if a groundwater investigation is not required under subsection (a)(2) of this Section. **The borings must be advanced through the entire vertical extent of contamination, based upon field observations and field screening for organic vapors, provided that borings must be drilled below the groundwater table only if site-specific conditions warrant.**

35 Ill. Adm. Code 734.315(a)(1)(A)-(B) (2014) (emphasis added). Administrative regulations have the force and effect of law. *Kean v. Wal-Mart Stores, Inc.*, 235 Ill. 2d 351, 368 (2009). Rules and regulations promulgated by the Pollution Control Board are presumptively valid and likewise have the force and effect of law. *Illinois EPA v. Jersey Sanitation Corp.*, 336 Ill. App. 3d 582, 588 (4th Dist. 2003) (citing *Granite City Div. of Nat'l Steel Co. v. Illinois Pollution Control Bd.*, 155 Ill. 2d 149, 162 (1993)). Board rules and regulations are to be construed by the same standards used to construe statutes. *U.S. Steel Corp. v. Illinois Pollution Control Bd. et al.*, 384 Ill. App. 3d 457, 463 (5th Dist. 2008).

**B. PIASA DRILLED BELOW THE GROUNDWATER TABLE,
AND THIS BOARD HAS CONSIDERED DEPTH WHILE DRILLING
DATA IN RULING UPON CLAIMS THAT BORINGS WERE
IMPROPERLY DRILLED BELOW THE GROUNDWATER TABLE.**

In its Stage 2 Site Investigation Plan & Budget prepared by CSD, Piasa reported conducting 12 borings as part of its Stage 1 site investigation. (Adm. R. at 240-241, 320-331.) All were bored 20 feet deep except for one, which was bored 16 feet deep. (*Id.*) In each case, the borings were drilled to a depth at least twice as deep as the point at which Piasa reported groundwater in the borings. (*Id.*) Piasa reported groundwater data at a depth while drilling of no more than 10 feet in any boring. (*Id.*) In the boring logs it submitted, Piasa reported groundwater data for the depth while drilling; it did not report in its logs groundwater data for the depth after drilling. (*Id.*) Piasa further reported taking 32 soil samples below the point at which Piasa reported groundwater in the boring. (*Id.*)

In Petitioner's Post-Hearing Brief, Piasa inaccurately states that the term "'groundwater table' ... is defined rather simply in the Board's rules in Part 742 (TACO) at Section 742.200 as 'the top water surface of an unconfined aquifer at atmospheric pressure.'" (Pet'r's Post-Hr'g Br.

at 2-3.) The definition to which Piasa refers is for the term “water table,” not “groundwater table.” Different terms presumably have different meanings. While the term “groundwater table” is used 21 times within the Illinois Administrative Code¹, neither this Board’s regulations nor any other portion of the Code defines the term, notwithstanding Joseph Truesdale’s contention that the term is “explicit.” (Tr. at 71:23-72:1.)

CSD’s Truesdale stated that the depth at which groundwater is observed while drilling is not a determination of the location of the groundwater table, that monitoring wells are the only means of accurately determining the groundwater table’s location, and that monitoring wells are not in place when borings are drilled in a Stage 1 investigation. (Tr. at 35:19-22, 36:9-17, 52:2-10, 68:9-11, 70:1-12, 74:5-75:20.) In fact, Truesdale testified that, when his staff is on-site boring in the course of a Stage 1 investigation, they do not know and cannot know where the groundwater table is.² (Tr. at 74:5-75:20.) According to Truesdale, Brandon Hargrave, the former CSD geologist who conducted the Stage 1 borings, “wouldn’t have been able to determine where the water table was at all at that point.” (Tr. at 72:22-73:3.)

The former CSD geologist who actually was on the Piasa site when the Stage 1 borings were taken and who analyzed them in the field viewed the depth at which groundwater is observed while drilling differently. Hargrave prepared the boring logs and monitoring log completion reports within Piasa’s State 2 Site Investigation Plan and Budget. (Tr. at 110:12-111:7.) He testified that the label “GW Depth in Boring” in a table in that plan and budget summarizing Stage 1 Site Investigation Borings & Soil Samples meant groundwater depth in

¹ See 35 Ill. Adm. Code 372.220(c)(1); 372.420(a)(1)(E); 570.204(a)(4); 734.210(h)(2)(A), (B), and (D); 734.315(a)(1)(A) and (B); 734.320(a)(1) and (2); 734.325(a)(1) and (2); 734.430(c); 742.200 (“Soil Gas” definition); 811.307(b)(2); 816.510(e); 816.520(d); 817.407(b)(2); and 77 Ill. Adm. Code 905.95(j) and 905.170(f)(2)(A).

boring, and Hargrave testified that was when he encountered the groundwater table. (Tr. at 112:16-18.) When asked where the groundwater table was for boring B-7, Hargrave answered “Nine feet”—the figure reported as the depth while drilling on the form under the heading “GROUNDWATER DATA” adjacent to CSD’s logo. (Tr. at 126:10-20; Adm. R. at 324.)

Hargrave explained how he determined the groundwater table in that boring:

A. Inside the boring, that’s where the – you kind of have a change from, you know, a dryer soil into a wetter soil. That’s where you kind of – that’s where you kind of surmise there might be a groundwater table right there. That’s as you are doing it in the field as I’m logging the borings, you might go from a period of dry soil to wet soil, in which case I will denote that.

Q. And would that be the case throughout your boring logs that if you indicated the depth while drilling, that indicates you’ve determined that’s where the groundwater table is through analyzing cores?

A. Yes. That’s where we encountered moisture, yes.

(Tr. at 126:22-127:12.) (underlining added). Piasa’s attorney questioned Hargrave on direct examination about words on a boring log:

Q. In the lower left-hand corner, it says, “Groundwater data, depth while drilling, ten feet”?

A. Yes.

Q. So what does that mean that you noticed at ten feet?

A. That means that we encountered the groundwater table at a depth of ten feet.

Q. The groundwater table?

A. Yes.

Q. Could you give me a definition for groundwater table?

A. The depth below ground surface at which groundwater – where you generally encounter groundwater.

(Tr. at 96:22-97:15; Adm. R. at 320.)

In *Brimfield Auto & Truck v. Illinois EPA*, this Board recognized the challenge posed in locating the groundwater table. The Board in *Brimfield* considered Illinois EPA’s modification of a submission that included drilling below the groundwater table in the context of early action or

² Somehow, though, CSD staff are able to set monitoring wells and screens.

Stage 1 activities. (PCB 12-134; Opinion and Order of Sept. 4, 2014.) The petitioner in *Brimfield* submitted groundwater depth data measured while drilling, after drilling, and with monitoring wells. (*Id.* at 13.) The depth after drilling and monitoring wells showed a range from 7.21 to 8.94 feet, whereas boring logs reported groundwater depth while drilling of nine feet. (*Id.* (referencing administrative record at 78-82.)) This Board referenced the depth-while-drilling figures by stating, “[t]he Board recognizes [Brimfield’s] argument that it may be difficult to determine the depth to groundwater. However, the record clearly indicates that that [*sic*] the depth at the site was no greater than nine feet.” (*Id.* at 13.) The Board held that, “[w]hether [Brimfield’s] drillings are classified as early action or Stage 1, nothing in the record supports drilling them below the depth to groundwater.” (*Id.* at 12.)

While Truesdale might have a different understanding of the significance and meaning of depth while drilling data than Hargrave, the geologist who actually was on the Piasa site³, conducted the soil borings and analysis, and prepared the submitted boring logs, this Board in *Brimfield* considered and referenced depth-while-drilling data in considering borings drilled below the groundwater table. As such, it was not improper for Illinois EPA to consider this type of data submitted by Piasa concerning its Stage 1 activities. Further, the monitoring well data Truesdale points to as more accurately measuring groundwater table depth shows a groundwater table that is higher than the depth-while-drilling data shows. (*See* Tr. at 53:15-56:9.)

Regardless whether measured by the depth while drilling, the depth after drilling, or by a monitoring well, Piasa never argues in Petitioner’s Post-Hearing Brief that it did not drill its Stage 1 soil investigation borings below the groundwater table. Such drilling requires site-specific

³ Or, as Piasa put it, “[t]he guy in the field ... making judgment calls within the best of his professional ability in the field.” (Pet’r’s Post-Hr’g Br. at 8 ¶ 16.)

conditions that warrant it.

C. PIASA'S SUBMITTAL VIOLATED SECTION 734.15, AS IT FAILED TO IDENTIFY SITE-SPECIFIC CONDITIONS WARRANTING DRILLING BELOW THE GROUNDWATER TABLE.

As noted previously, Section 734.315 of this Board's regulations provides that Stage 1 soil investigation borings are only to be drilled below the groundwater table "if site-specific conditions warrant." 35 Ill. Adm. Code 734.315(a)(1)(A)-(B) (2014).

Truesdale of CSD, Piasa's consultant, testified that site-specific conditions warranted drilling through the water table at the Piasa site. (Tr. at 68:15-19.) When asked to provide an example, Truesdale answered, "Normal contaminant fate and transport processes for any fine grain soil would almost always necessitate drilling below the water table and evaluation of the distribution of soil phase contaminants absorbed to the solids within the water bearing unit." (Tr. at 68:20-69:4.) While Truesdale contended that "[f]ield screening and PID response combined with textural classification of the soils that are impacted according to ASTM classification" were observations present in the record, (Tr. at 69:5-12), Piasa does not point in Petitioner's Post-Hearing Brief to any references in its Stage 2 Site Investigation Plan and Budget to "normal contaminant fate and transport processes for any fine grain soil" or anything else that expressly asserted that site-specific conditions warranted drilling below the groundwater table during the Stage 1 activities at the Piasa site. Of course, the reason might be that Truesdale contends that, "in a typical LUST site," the clause in Section 734.315 limiting drilling below the groundwater table only if site-specific conditions warrant "would never be applicable." (Tr. at 86:19-20.) After all, when questioned about site-specific conditions warranting drilling below the groundwater table when the location of the groundwater table is not known, Truesdale answered, "I don't care where it is in Stage 1 under a typical LUST site. Site-specific conditions with glacial geology,

with a typical LUST site in Illinois, always provides site-specific conditions that dictate drilling below the water table.” (Tr. at 84:19-85:11.)

Piasa states in Petitioner’s Post-Hearing Brief that “[o]ne of the primary purposes of the Stage 1 investigation is to define the entire vertical extent of contamination.” Pet’r’s Post-Hr’g Br. at 5. However, Piasa’s own boring logs undercut any contention that it drilled below the groundwater table because it sought to so define the contamination. CSD drilled 12 borings, all of which were drilled 20 feet deep except for one drilled to only 16 feet deep. (Adm. R. at 320-331.) Those logs report no contamination detected at the bottom of all of those borings—all except one: B-13. (*Id.*) In that boring, Hargrave reported odor throughout the last core pulled, with slight odor remaining at the bottom of the 20-foot boring. (Adm. R. at 330; Tr. at 116-117.) If the purpose was to define the entire vertical extent of the contamination, then presumably CSD would have drilled until its last core was clean. (*See, e.g.*, Pet’r’s Post-Hr’g Br. at 6 ¶ 11.) Instead, CSD shut down its equipment at 20 feet, despite the fact that it was capable of drilling to 60 feet. (*See* Tr. at 104:21-105:9.)

Karl Kaiser, the Illinois EPA project manager charged with reviewing Piasa’s Stage 2 Site Investigation Plan and Budget, which included the Stage 1 work at issue, testified that he “did not see anything that would require them to take samples below the groundwater table in this particular instance.” (Tr. at 139:18-20.) No site-specific conditions were set forth in Piasa’s submittal indicating to Kaiser that boring below the groundwater table was warranted. (Tr. at 159:12-16.) Further, no site-specific conditions were called to Kaiser’s attention in the submittal that CSD or Piasa contended warranted drilling or boring below the groundwater table. (Tr. at 147:16-22; 159:17-22.) Kaiser testified,

[w]hen looking at – when reviewing a particular report like this and looking at compliance like this, I would look for a statement within the submittal of the extenuating circumstances or the reasoning why they would have wanted to stay below the water table and that was not provided in the submittal.

(Tr. at 160:12-18.) Kaiser said he would look for reasoning set forth separately from the data.

(Tr. at 162:11-13.) “They need to provide me with their reasoning why they had site-specific conditions that warrant them taking samples below the water table,” Kaiser testified. (Tr. at 162:7-10.)

The petitioner in *Brimfield* failed to point to anything in its submittal supporting drilling borings below the depth to groundwater and thus failed to meet its burden of proving that its submittal would not violate the Act and the Board’s regulations. *Brimfield v. Illinois EPA* (PCB No. 12-134; Opinion And Order of Sept. 4, 2014) at 12-13. While Piasa points to Truesdale’s testimony in contending that site-specific conditions existed warranting drilling below the groundwater table, Illinois EPA’s review generally is limited to the information submitted by the petitioner. *Keller Oil Properties, Inc./Farina v. Illinois EPA* (PCB No. 07-147; Opinion and Order of Dec. 6, 2007) at 38. The Petitioner’s Post-Hearing Brief does not point to anything in its Stage 2 Site Investigation Plan and Budget in which Piasa asserted that such site-specific conditions existed warranting drilling below the groundwater table as part of its Stage 1 soil investigation. That, of course, is because Piasa failed to identify any such conditions in its submittal. As such, Piasa has failed to meet its burden to prove that its submittal would not violate the Act and regulations, including Section 734.315(a)(1)(A)-(B).

V. CONCLUSION

Piasa disputes how Illinois EPA determined the depth of the groundwater table, despite the fact that the geologist who actually conducted the borings and analysis and prepared the boring logs, Brandon Hargrave, also characterized the depth while drilling data relied upon by Illinois EPA to be the groundwater table depth. However the groundwater table is measured, though, Piasa does not argue in Petitioner's Post-Hearing Brief that it did not drill below it. Instead, Piasa contends that site-specific conditions warranted drilling below the groundwater table. Piasa points to the testimony of Joseph Truesdale to supply the site-specific conditions, but does not contend—nor could it—that the site-specific conditions warranting drilling below the groundwater table as part of its Stage 1 soil investigation were expressly asserted in its Stage 2 Site Investigation Plan and Budget. As its review generally is limited to the information submitted by the petitioner and as the Petitioner failed to assert site-specific conditions warranting its drilling below the groundwater table, Illinois EPA properly modified its Stage 2 Site Investigation Plan and Budget. Piasa failed to meet its burden to prove that its submittal would not violate the Act and Board regulations, including Section 734.315(a)(1)(A)-(B).

Consequently, the Board should affirm Illinois EPA's April 8, 2014 decision to conditionally approve the Stage 2 Site Investigation Plan with modifications.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
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Dated: October 27, 2014

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BY:



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Piasa Motor Fuels, Inc. v. Illinois Environmental Protection Agency
Pollution Control Board No. 14-131

CERTIFICATE OF SERVICE

Scott B. Sievers, Special Assistant Attorney General, herein certifies that he has served a copy of the foregoing **RESPONDENT'S POST-HEARING BRIEF** upon:

John T. Therriault
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by mailing true copies thereof to the addresses referred to above in envelopes duly addressed bearing proper postage and deposited in the United States mail at Springfield, Illinois, on October 27, 2014.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
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Dated: October 27, 2014

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