Sugar Camp Energy, LLC
11525 N. Thompsonville Rd.
Macedonia, IL 62860

October 21, 2022

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Mr. Caleb Ruyle/CAS#19
P.O. Box 19276
Springfield, IL 62794-9276
caleb.ruyle@illinois.gov

Re: Violation Notice: Sugar Camp Energy, LLC
IL0078565 – W0558010004
Violation Notice No.: W-2022-50229

Dear Mr. Ruyle:

Please find the following information in response to Violation Notice ("VN") W-2022-50229 issued to Sugar Camp Energy, LLC ("Sugar Camp") on September 7, 2022. Sugar Camp would like to request a meeting with representatives of the Illinois Environmental Protection Agency ("IEPA") if the issues detailed herein cannot be resolved from this written response.

The VN alleges violations of Section 12(b) of the Act, 415 ILCS 5/12(b) (2020) and 35 Ill. Adm. Code 309.202 and 309.203 for failure to obtain a State Construction and Operating Permit. The VN further alleges that representatives from the Illinois EPA conducted a reconnaissance of the Sugar Camp Mine on August 16, 2022, and observed the presence and operation of five water cannons installed along the western berm of the Refuse Disposal Area #2 impoundment, which are intended to evaporate a portion of the water in Refuse Disposal Area #2 while allowing heavier particles to settle out over the impoundment. The VN alleges violations of certain statutes and regulations because Sugar Camp had not obtained an Illinois EPA State Construction or Operating Permit prior to construction and operation of the water cannons.

Sugar Camp takes exception to any implication that operation of the water evaporation equipment was concealed from the Agency. In fact, Sugar Camp freely acknowledged operation of water evaporation equipment to the Agency and invited Illinois EPA representatives to observe the operation.

Sugar Camp requests to enter into a Compliance Commitment Agreement ("CCA"), subject to the proposed terms below, which respond to the IEPA's recommendations listed in Attachment B of the VN.

1. Sugar Camp applied for a State Construction and Operating permit for the water evaporation equipment used in the Refuse Disposal Area #2 impoundment. Its

permit application was sent on September 19, 2022, and received by the Agency on September 29, 2022. Sugar Camp is unable to cease operation of the water evaporation equipment during the pendency of the Agency's review of its permit application. Evaporators are intended for seasonal use, generally to include continuous operation in peak evaporation months between March 1– October 31. Thus, while its permit application is being considered by the Agency, Sugar Camp will continue to run the water evaporation equipment during appropriate weather conditions as specified in the Standard Operating Procedures.

2. As detailed above, Sugar Camp has applied for a construction and operating permit for its water evaporation equipment used in the Refuse Disposal Area #2 impoundment. Its application includes Standard Operating Procedures (SOP) for utilization of the treatment equipment which addresses operating parameters during weather conditions that are not conducive for water evaporation.

3. Sugar Camp currently intends to install additional water evaporation equipment in early 2023. It has applied for a construction and operating permit from the Agency, but in the meantime, it cannot commit to refraining from further installation given its need for additional evaporation equipment in early spring 2023.

If you have any questions or concerns, or if you wish to discuss this matter in any particular, please do not hesitate to contact me.

Respectfully,

Authorized Person

Sugar Camp Energy, LLC
11351 N. Thompsonville Rd.
Macedonia, IL 62860
Office: 618-435-5439 Fax: 618-435-2485

September 19, 2022

Illinois Environmental Protection Agency
Permit Section, Div. of Water Pollution Control
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

Subject: Supplemental Permit Request to Existing State Operating Permit IL 0078565

Dear Water Pollution Control Staff:

At the request of the Illinois Environmental Protection Agency (IEPA) Sugar Camp Energy LLC is submitting this Supplemental Permit Request to Existing State National Pollutant Discharge Elimination System (NPDES) Operating Permit IL 0078565 to install and operate an engineered brine/wastewater evaporation system at the Sugar Camp Energy (SCE) Complex in Macedonia, Illinois. The facility currently discharges wastewater through numerous outfalls, as outlined in the current NPDES permit, which was issued on May 24, 2016 and modified on May 3, 2021. The proprietary supplemental system enhances natural evaporation by supplying water at a design pressure to spray nozzles which project a diffused plume into the atmosphere enabling water vapor evaporation and non-evaporated water droplets to return to the pool.

The water evaporation system is configured with the evaporator plume directed over the existing refuse disposal area pool. The system will be operated such that the plume will not negatively affect unaffected areas or soils that have been placed for site reclamation. As a non-discharge system, none of the evaporator plume will be allowed to fall outside of the drainage system that reports to the approved NPDES permitted outfalls. The evaporation system will not substantially affect characterization of the pool quality so that the effluent quality of the NPDES outfalls will not be impacted by the addition of the water evaporation system.

Each evaporation unit is designed for a feed flow rate of 600 GPM (0.86 MGD) with an expected evaporation yield of approximately 50%. The total feed flow rate for the 5-unit system is 3000 GPM (4.32 MGD). Future installation of additional evaporation units is anticipated.

Attached, please find a completed WPC-PS-1 form, including Schedule J, and a check in the amount of $1,000 for the permit fee. Additionally, included in the attachments are Standard Operating Procedures, an illustration of the evaporation system, an analysis comparing natural evaporation to expected supplemental evaporation, and a map showing the installation location of the evaporator units.

Please do not hesitate to reach out to me at (618) 435-9439 or (618) 218-7627 with questions regarding this application. Thank you for your attention in this matter.

Respectfully submitted,

James Miller, Authorized Representative
Sugar Camp Energy, LLC

Attachments: WPC-PS-1 (including Schedule J) and a permit fee check
Permit Support Attachments

Illinois Environmental Protection Agency
Permit Section, Division of Water Pollution Control
P.O. Box 19276
Springfield, Illinois 62794-9276

For IEPA Use:

Application for Permit or Construction Approval
WPC-PS-1

1. Owner Name: Sugar Camp Energy, LLC

   Name of Project: Evaporator Operation

   Township: Northern Township (T5S, R4E) County: Franklin

2. Brief Description of Project:

   Operation includes an engineered brine/wastewater evaporation system. The proprietary non-discharge system enhances natural evaporation by supplying water at a design pressure to spray nozzles which project a diffused plume into the atmosphere enabling water vapor evaporation and water droplets to return to the pool.

3. Documents Being Submitted: If the Project involves any of the items listed below, submit the corresponding schedule, and check the appropriate boxes.

	Schedule		Schedule
Private Sewer Connection/Extension	A/B ☐	Spray Irrigation	H ☐
Sewer Extension Construct Only	C ☐	Septic Tanks	I ☐
Sewage Treatment Works	D ☐	Industrial Treatment/Pretreatment	J ☑
Excess Flow Treatment	E ☐	Waste Characteristics	N ☐
Lift Station/Force Main	F ☐	Erosion Control	P ☐
Fast Track Service Connection	FTP ☐	Trust Disclosure	T ☐
Sludge Disposal	G ☐		

   Plans: Title N/A

   _____ No. of Pages: N/A

   Specifications: Title N/A

   _____ No. of Books/Pages: N/A

   Other Documents: N/A
   (Please Specify)

3.1 Illinois Historic Preservation Agency approval letter: Yes ☐ No ☑

4. Land Trust: Is the project identified in item number 1 herein, for which a permit is requested, to be constructed on land which is the subject of a trust? Yes ☐ No ☑

   If yes, Schedule T (Trust Disclosure) must be completed and item number 7.1.1 must be signed by a beneficiary, trustee or trust officer.

5. This is an Application for (Check Appropriate Line):

   ☐ A. Joint Construction and Operating Permit
   ☐ B. Authorization to Construct (See Instructions) NPDES Permit No. IL00_____
   ☐ C. Construct Only Permit (Does Not Include Operations)
   ☑ D. Operate Only Permit (Does Not Include Construction)

6. Certifications and Approval:

6.1 Certificate by Design Engineer (When required: refer to instructions)
I hereby certify that I am familiar with the information contained in this application, including the attached schedules indicated above, and that to the best of my knowledge and belief such information is true, complete and accurate. The plans and specifications (specifications other than Standard Specifications or local specifications on file with this Agency) as described above were prepared by me or under my direction.

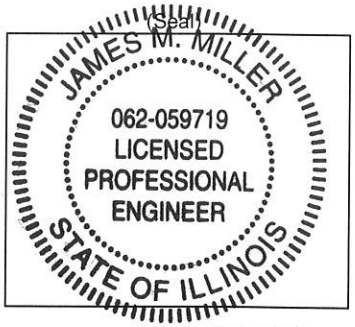
Engineer Name: James M. Miller

Registration Number: 062 (3 digits) - 059719 (6 digits)

Firm: Sugar Camp Energy, LLC

Address: 11351 North Thompsonville Road

(Seal)



City: Macedonia State: IL Zip: 62860 Phone No: (618) 435-9439

Signature X James M Miller Date: 9/07/2022

7. Certifications and Approvals for Permits:

7.1 Certificate by Applicant(s)
I/We hereby certify that I/we have read and thoroughly understand the conditions and requirements of this Application, and am/are authorized to sign this application in accordance with the Rules and Regulations of the Illinois Pollution Control Board. I/We hereby agree to conform with the Standard Conditions and with any other Special Conditions made part of this Permit.

7.1.1 Name of Applicant for Permit to Construct: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Signature X _____ Date: _____

Printed Name: _____ Phone No: _____

Title: _____

Organization: _____

7.1.2 Name of Applicant for Permit to Own and Operate: Sugar Camp Energy, LLC

Address: 11351 North Thompsonville Road

City: Macedonia State: IL Zip Code: 62860

Signature X James Mills Date: 9/07/2022

Printed Name: James Miller Phone No: (618) 435-9439

Title: Designated Representative

7.2 Attested (Required When Applicant is a Unit of Government)

Signature X _____ Date: _____

Title: _____
(City Clerk, Village Clerk, Sanitary District Clerk, Etc.)

7.3 Applications from non-governmental applicants which are not signed by the owner, must be signed by a principal executive officer of at least the level of vice president, or a duly authorized representative.

7.4 Certificate By Intermediate Sewer Owner

I hereby certify that (Please check one): Not Applicable

☐ 1. The sewers to which this project will be tributary have adequate reserve capacity to transport the wastewater that will be added by this project without causing a violation of the environmental Protection Act or Subtitle C. Chapter I, or
☐ 2. The Illinois Pollution Control Board, in PCB _____ dated _____granted a variance from Subtitle C, Chapter I to allow construction of facilities that are the subject of this application.

Name and location of sewer system to which this project will be tributary:

N/A - This is a non-discharge system

Sewer System Owner: _____

Address: _____

City: _____ State:_____ Zip Code: _____

Signature X _____ Date: _____

Printed Name: _____ Phone No: _____

Title: _____

7.4.1 Additional Certificate By Intermediate Sewer Owner

I hereby certify that (Please check one):

☐ 1. The sewers to which this project will be tributary have adequate reserve capacity to transport the wastewater that will be added by this project without causing a violation of the environmental Protection Act or Subtitle C. Chapter I, or
☐ 2. The Illinois Pollution Control Board, in PCB _____dated _____granted a variance from Subtitle C, Chapter I to allow construction facilities that are the subject of this application.
☑ 3. Not applicable

Name and location of sewer system to which this project will be tributary:

N/A - This is a non-discharge system

Sewer System Owner:_____

Address: _____

City: _____ State:_____ Zip Code: _____

Signature X _____ Date: _____

Printed Name: _____ Phone No: _____

Title: _____

7.5 Certificate By Waste Treatment Works Owner

I hereby certify that (Please check one):

☐ 1. The waste treatment plant to which this project will be tributary has adequate reserve capacity to treat the wastewater that will be added by this project without causing a violation of the Environmental Protection Act or Subtitle C, Chapter I, or

☐ 2. The Illinois Pollution Control Board, in PCB _____ dated _____ granted a variance from Subtitle C, Chapter I to allow construction and operation of the facilities that are the subject of this application.

☑ 3. Not applicable

I also certify that, if applicable, the industrial waste discharges described in the application are capable of being treated by the treatment works.

Name of Waste Treatment Works: _____

Waste Treatment Works Owner: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Signature X _____ Date: _____

Printed Name: _____ Phone No: _____

Title: _____

Please return completed form to the following address:

Illinois Environmental Protection Agency
Permit Section, Division of Water Pollution Control
P.O. Box 19276
Springfield, Illinois 62794-9276

This Agency is authorized to require this information under Illinois Revised Statues, 1979, Chapter 111 ½, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

FOR IEPA USE:
LOG #
DATE RECEIVED:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF WATER POLLUTION CONTROL
PERMIT SECTION

Springfield, Illinois 62706

SCHEDULE J INDUSTRIAL TREATMENT WORKS CONSTRUCTION OR PRETREATMENT WORKS

1. NAME AND LOCATION:
   1.1 Name of project Evaporator Operation
   1.2 Plant Location
   1.2.1 NW (Quarter Section) 33 (Section) Northern Towns (Township) 4E (Range) 3rd P.M.
   1.2.2 Latitude 38 deg. 02 min. 58 sec. "NORTH
   1.2.3 Longitude 88 deg. 46 min. 25 sec. "WEST
   1.2.3 Name of USGS Quadrangle Map (7.5 or 15 minute) Ewing (7.5 minute)
2. NARRATIVE DESCRIPTION AND SCHEMATIC WASTE FLOW DIAGRAM: (see instructions)

   The project includes operation of an engineered brine/wastewater evaporation system. Illinois EPA has demanded that this application be filed, deeming the system as treatment works. The permittee is filing this permit at the behest of IEPA without consenting to IEPA's characterization that the evaporators are treatment works.

   2.1 PRINCIPAL PRODUCTS:

   2.2 PRINCIPAL RAW MATERIALS:
3. DESCRIPTION OF TREATMENT FACILITIES:
   3.1 Submit a flow diagram through all treatment units showing size, volumes, detention times, organic loadings, surface settling rate, weir overflow rate, and other pertinent design data. Include hydraulic profiles and description of monitoring systems.
   3.2 Waste Treatment Works is: Batch ☐ , Continuous ☒ , No. of Batches/day _____ , No. of Shifts/day _____
   3.3 Submit plans and specifications for proposed construction.
   3.4 Discharge is: Existing ☐ ; Will begin on 01/01/99 .
4. DIRECT DISCHARGE IS TO: Receiving Stream ☐ Municipal Sanitary Sewer ☐ Municipal storm or municipal combined sewer ☐
   If receiving stream or storm sewer are indicated complete the following:
   Name of receiving stream N/A ; tributary to _____ ;
   tributary to _____ ; tributary to _____ ;
5. Is the treatment works subject to flooding? Yes ☐ No ☒ If so, what is the maximum flood elevation of record (in reference to the treatment works datum) and what provisions have been made to eliminate the flooding hazard?
6. APPROXIMATE TIME SCHEDULE: Estimated construction schedule:
   Start of Construction 08/08/22 ; Date of Completion 08/08/22
   Operation Schedule 08/08/22 ; Date Operation Begins 08/08/22
   100% design load to be reached by year 2022 .
7. DESIGN LOADINGS
   7.1 Design population equivalent (one population equivalent is 100 gallons of wastewater per day, containing 0.17 pounds of BOD_5 and 0.20 pounds of suspended solids;
   BOD N/A ; Suspended Solids N/A ; Flow N/A .
   7.2 Design Average Flow Rate _____ MGD.

7.3 Design Maximum Flow Rate _____ MGD.

7.4 Design Minimum Flow Rate _____ MGD.

7.5 Minimum 7-day, 10-year low flow _____ cfs _____ MGD.

Minimum 7-day, 10-year flow obtained from _____

7.6 Dilution Ratio_____;_____.

8. FLOW TO TREATMENT WORKS (if existing):

8.1 Flow (last 12 months)

8.1.1 Average Flow 4.32 MGD

8.1.2 Maximum Flow 4.32 MGD

8.2 Equipment used in determining above flows .

9. Has a preliminary engineering report for this project been submitted to this Agency for Approval?

Yes ☐ No ☒ . If so, when was it submitted and approved. Date Submitted _____

Certification # _____

Dated _____

10. List Permits previously issued for the facility:

Illinois Department of Natural Resources
Land Reclamation Division
General Inspection Report - Field Decision

11. Describe provisions for operation during contingencies such as power failures, flooding, peak loads, equipment failure, maintenance shut downs and other emergencies.

Operated continuously in peak evaporation months (generally March - October). More or less depending on weather conditions.
Operated such that adverse wind conditions will not cause non-evaporated water droplets to discharge off-permit or to affect permitted areas not proposed to be affected.

12. Complete and submit Schedule G if sludge disposal will be required by this facility.

13. WASTE CHARACTERISTICS: Schedule N must be submitted.

14. TREATMENT WORKS OPERATOR CERTIFICATION: List names and certification numbers of certified operators:

N/A

SUGARCAMP ENERGY LLC
211 N. Broadway, Ste. 2600
ST. LOUIS, MO 63102
US

129848

ILLINOIS EPA (NPDES)
FISCAL SERVICES #2
PO Box 19276
SPRINGFIELD IL 62794-9276

Payment No.: **2000034316**
Payment Date: **09/15/2022**
Vendor No.: **302629**

Page: **1** of **1**

Invoice Number	Invoice Date	Document Number Text	Gross Amount	Discount	Net Amount
WPC-PS-1	09/07/2022	1900033982 App for permit or Construction Approval	1,000.00	0.00	1,000.00
		Check Total.....		$	1,000.00

DETACH FROM CHECK AND KEEP FOR YOUR RECORDS

SUGARCAMP ENERGY LLC
211 N. Broadway, Ste. 2600
ST. LOUIS, MO, 63102
US

KeyBank, N.A.
6-103/410

129848
09/15/2022

PAY: ILLINOIS EPA (NPDES) $ 1,000.00

ONE THOUSAND **** USD

Security features. Details on back.

ILLINOIS EPA (NPDES)
FISCAL SERVICES #2
PO Box 19276
SPRINGFIELD IL 62794-9276

⑈129848⑈ ⑆041001039⑆ 359681589529⑈

Standard Operating Procedures

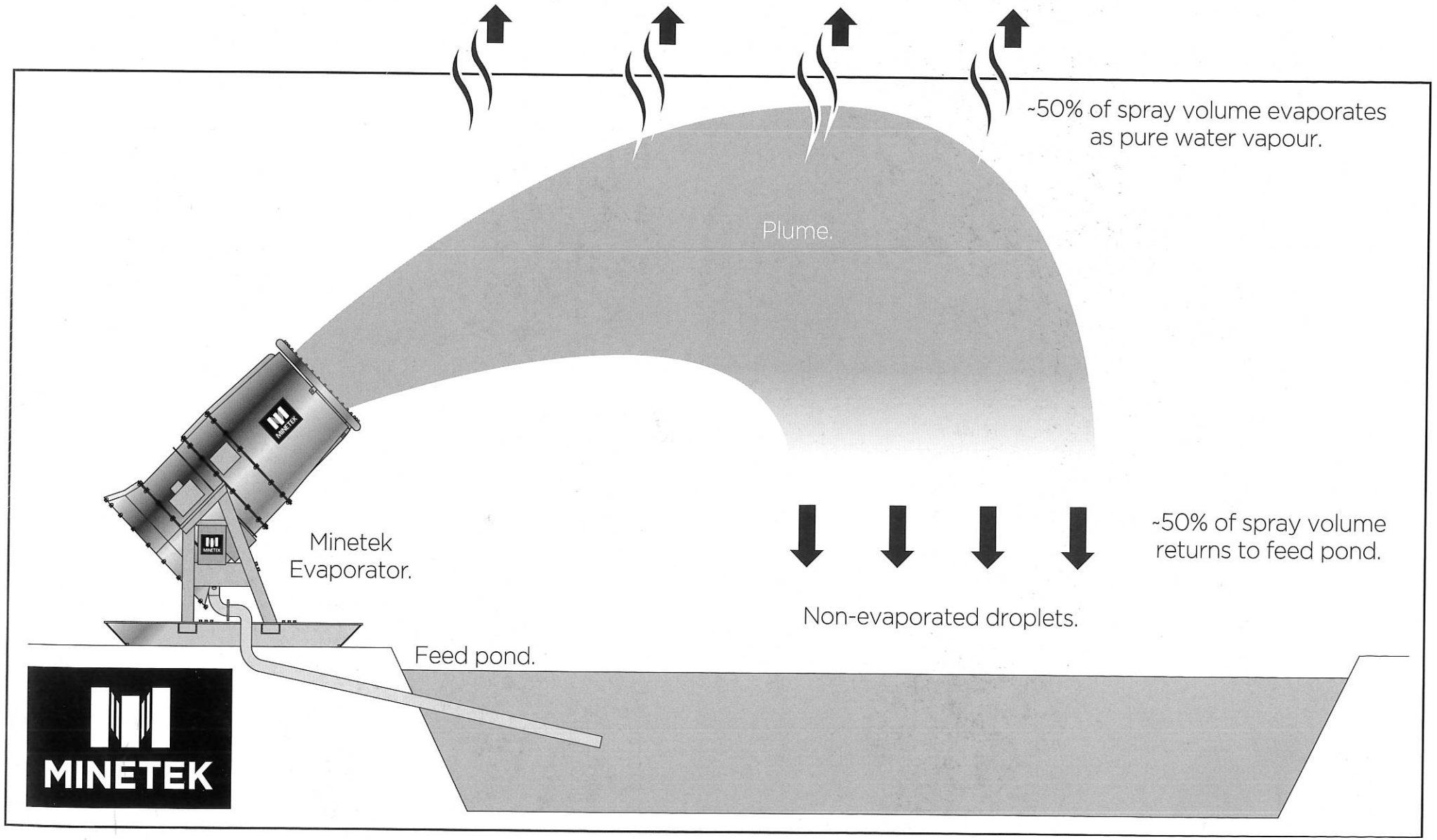
Evaporators are an innovative, engineered brine/wastewater disposal system. The proprietary non-discharge system enhances natural evaporation by supplying water at a design pressure to spray nozzles which project a diffused mist into the atmosphere enabling fine water droplet evaporation and dissolved particles to return to the pool. Evaporators are intended for seasonal use, generally to include continuous operation in peak evaporation months between March 1st– October 31st. The seasonal evaporation period may be extended or shortened based on weather conditions. No weather condition shall necessitate automatic system shutdown. However, multiple weather conditions require prudent judgement in determining cost/benefit of operation and also operating constraints ensuring no potential environmental impact. Weather conditions which are not conducive to evaporation include unseasonably cool temperatures and/or prolonged precipitation events. Neither poses reasonable potential for environmental impact, but occurrence of either results in diminished system efficiency. Evaporator operation is monitored so that adverse wind conditions will not cause non-evaporated water droplets to discharge off-permit or to affect permitted areas which are not proposed to be affected or are located outside of sediment control areas. Evaporator operation during adverse wind conditions shall include one or more of the following modifications:

1. Changing (generally lowering) the evaporator discharge angle
2. Reducing or increasing the quantity of operating evaporation units to increase or reduce the discharge pressure at remaining active units
3. Reducing or increasing the water supply pump speed to increase or reduce the discharge pressure
4. Temporary system shutdown if Items #1-#3 are ineffective

Evaporators may be arranged in varying configurations based on expected prevailing wind patterns, but will always be oriented to discharge in the direction of the refuse disposal area (RDA) main pool. The initial August 2022 system configuration included evaporation unit installation on the west embankment of RDA2 oriented approximately due East. Specific to that configuration, wind conditions believed to adversely affect system operation include all of the following:

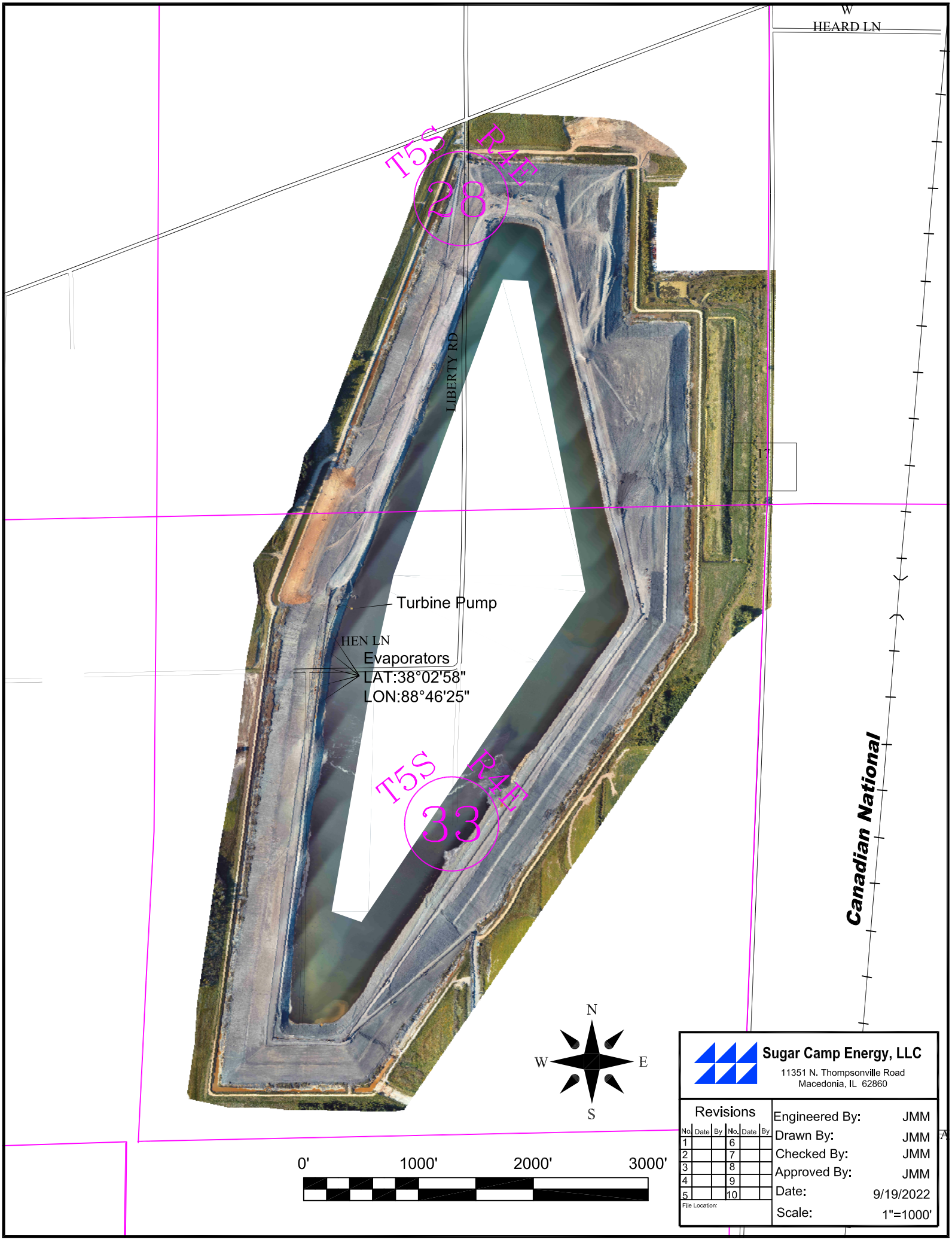
- Wind velocity exceeding 2 mph but not more than 5 mph arriving from a bearing between N67°E and S67°E
- Wind velocity exceeding 5 mph but not more than 10 mph arriving from a bearing between N45°E and S45°E
- Wind velocity exceeding 10 mph but not more than 15 mph arriving from a bearing between N22°E and S22°E
- Wind velocity exceeding 15 mph arriving from a bearing between N0°E and S0°E

Visual observation shall supersede any of the above parameters.


~50% of spray volume evaporates as pure water vapour.
Plume.
Minetek Evaporator.
~50% of spray volume returns to feed pond.
Non-evaporated droplets.
Feed pond.
MINETEK

	January	February	March	April	May	June	July	August	September	October	November	December	Totals	
Estimated Efficiency	0	0	38.5	37.7	42.7	44.2	45.7	43.4	38.8	32.6	0	0		
Daily Peak Operating Hours	0	0	12	13	14	14.5	14	13	12	11	0	0		
Daily Evaporation (gallons)	0	0	166,320	176,436	215,208	230,724	230,328	203,112	167,616	129,096	0	0		
Days	31	28	31	30	31	30	31	31	30	31	30	31		Seasonal Feet of
Monthly evaporation per unit	0	0	5,155,920	5,293,080	6,671,448	6,921,720	7,140,168	6,296,472	5,028,480	4,001,976	0	0		Evaporation
Monthly evaporation total	0	0	25,779,600	26,465,400	33,357,240	34,608,600	35,700,840	31,482,360	25,142,400	20,009,880	0	0	232,546,320	3.02
	11	10	8	6	4	2	1	3	5	7	9	12		Annual Feet of
Pan evaporation rate (inches/month)*	0.74	1.02	2.03	3.42	4.74	5.18	5.62	4.94	3.70	2.36	1.29	0.72	35.76	Evaporation
Pan evaporation gallons	4,748,333	6,545,000	13,025,833	21,945,000	30,415,000	33,238,333	36,061,667	31,698,333	23,741,667	15,143,333	8,277,500	4,620,000	229,460,000	2.98

*Based on averages from 1911-1962 as published in Report of Investigation 57 for the Illinois State Water Survey 1967 (Page 33)



Sugar Camp Energy, LLC
11351 N. Thompsonville Road
Macedonia, IL 62860

Revisions					
No.	Date	By	No.	Date	By
1			6		
2			7		
3			8		
4			9		
5			10		

File Location:

Engineered By:	JMM
Drawn By:	JMM
Checked By:	JMM
Approved By:	JMM
Date:	9/19/2022
Scale:	1"=1000'