ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

| May 5, | 2005 | RECEIVED CLERK'S OFFICE |
|---|--------|--|
| Lincoln Place Mobile Home Park |) | MAY 1 6 2005 |
| Petitioner, |) | STATE OF ILLINOIS Pollution Control Board |
| v. |)) | IEPA-05- 37 05 |
| ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, |) | (Provisional Variance- Water) |
| Respondent. |) | |

Re: Provisional Variance From 35 Ill. Adm. Code 304.120(a) for Total Suspended Solids, and 304.122 for Fecal Coliform

NPDES Permit # IL0062651

Dear Mr. Shugerts:

The Agency has completed its technical review of the attached provisional variance request submitted by the Lincoln Place Mobile Home Park on May 4, 2005. Based on the review, the Agency GRANTS the requested provisional variance subject to specific conditions set forth below for a period of 7 days.

Lincoln Place Mobile Home Park is seeking a provisional variance from the TSS and Fecal Coliform limitations specified in their NPDES permit for a period of seven days beginning May 5, 2005 so that needed repairs can be made to their wastewater treatment plant.

The Lincoln Place Mobile Home Park wastewater treatment consists of a three-cell aerated lagoon followed by a sand filter and disinfection. The wastewater treatment plant has a design average flow of 0.053 MGD and a design maximum flow of 0.1 MGD. The permit contains effluent limitations of 25mg/l monthly average and 40 mg/l daily maximum for CBOD and 37 mg/l monthly average and 45 mg/l for total suspended solids. The permit also limits fecal coliform to 400 per 100 ml. Discharge is directly to the Sangamon River.

A provisional variance is being sought due to flood damage that occurred in 2002 when the Sangamon River flooded the wastewater treatment facility. The flood resulted in damage to a mooring for the baffle curtain in the lagoon and it also fouled the sand filter with river sediment. In order to make the necessary repairs to the baffle curtain the

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

| May 5, | 2005 | RECEIVED CLERK'S OFFICE |
|-----------------------------------|-------------|--|
| Lincoln Place Mobile Home Park |) | MAY 1 6 2005 |
| Petitioner, |) | STATE OF ILLINOIS Pollution Control Board |
| v. |) | IEPA-05-146 |
| ILLINOIS ENVIRONMENTAL PROTECTION |) | IEFA-03-140 |
| AGENCY, |) | (Provisional Variance- Water) |
| Respondent. |))) | |

Re: Provisional Variance From 35 Ill. Adm. Code 304.120(a) for Total Suspended

Solids, and 304.122 for Fecal Coliform

NPDES Permit # IL0062651

Dear Mr. Shugerts:

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1021 North Grand Avenue East, MC #19 Springfield, Illinois 62794-9276

| υ. | variance and forward that certi- | ficate to Roger Callaway at the address indicated te of this order. The certification should take the |
|----|----------------------------------|---|
| | ` / | , hereby accept and agree to be bound by all the provisional variance granted by the Agency in |
| | Petitioner | |
| | Authorized Agent | |
| | Title | |
| | | |

The Lincoln Place MHP shall continue to monitor and maintain compliance with all other parameters and conditions specified in its National Pollutant Discharge Elimination System Permit No. IL0062651.

The Illinois EPA grants this provisional variance in accordance with its authority contained in Sections 35(b), 36(c), and 37 (b) of the Illinois Environmental Protection Act (415 ILCS 5/35(b), 36(c), and 37(b)) (2002). The decision to grant this provisional variance is not intended to address compliance with any other applicable laws or regulations.

Sincerely,

William D. Ingersoll

Acting Chief Legal Counsel

Date

Enclosure

CC: IPCB, Clerk

Essex Partners Inc. 175 Corporate Woods, Suite 110 Rochester, New York 14623

MAY 0 4 2005

585-272-2350 Fax 585-272-2396

P.01/03

VIA FACSIMILE - 217-557-1407

May 4, 2005

Illinois Environmental Protection Agency CAS-19 1021 North Grant Avenue East P.O. Box 19276 Springfield, IL 62794-9276

Re: Lincoln Place MHP - IL0062651

Dear Mr. Galloway:

This letter is to request a variance to exceed our permitted Total Suspended Solids (TSS) and Fecal Coll Form levels in bypass our normal sewage water filtration process at Lincoln Place MHP located in Springfield, IL. Based on Title 35: Environmental Protection, Subtitle A: General provisions, Chapter 1: Pollution Control Board, Part 104 Regulatory Relief Mechanisms, Subpart B: variances, Section 104.204 the following information has been provided.

Section 104,204

- a) We are requesting a variance to exceed our permitted Total Suspended Solids (TSS) and Fecal Coli Form levels in bypassing the permitted sewage lagoon filtration process to reduce the water level with-in our lagoon to make repairs to the sewage lagoon facility.
- b)
- Sewage lagoon located at Lincoln Place MHP 1236 North Oak Lane Road, Springfield, II 62707.
- 2. The discharge is located at the north east corner of the MHP and discharges into the Sangamon River
- No know variance requests prior to this request.
- 4. Sewage lagoon permit # IL0062651, Outfall 0010.
- 5. There are two persons employed by Lincoln Place MHC and the facility was originally built in 1972 and renovated in 1997.
- 6. Waste water enters the sewage lagoon from the community. It is aerated with aerators that are installed in the three cells of the lagoon. The water is pumped from the lagoon to two sand filters. The sand filters are used for the filtration of the waste water that comes form the lagoon and the water is discharged to the Sangamon River. The water is sent through a chlorinator during the months of May through November before being discharged.
- 7. Please see description in sub section 6.
- 8. Please see attachment # 1 (DMR Summary for Period of 9/30/03 1/31/05)

• Page 3

May 4, 2005

- We would be looking to remove approximately 3.25 million gallons of water from the lagoon in the process of lowering the level by 6-61/2 feet. Please also see attachment # 4 (Greene & Bradford Inc. — Environmental impact statement.)
- We do not feel that there will be an impact during the variance period.
 Should the testing show levels higher than allowable by the variance standard we would stop the bypass process and proceed to and alternative method to lower the level.
- h) This is not applicable to our request.
- i) Our permit number has been provided in the above information.
- j) This is not applicable to our request.
- We would request the variance to begin on Thursday, May 6, 2005 and end on Wednesday, May 12 2005.
- This is not applicable to our request.
- m) This is not applicable to our request.
- n) This is not applicable to our request.

Should you have any questions with the information provided above please contract me immediately at 585-202-3100. I thank you for taking the time to review our request and we look forward to your communication as soon as possible.

Sincerely,

Keith W Shugerts

VP of Development & Purchasing

Joith W. Shugests

TMI Analytical Services, LLC

NELAP Accorded #1 00467

2110 N. Republic St. Spring@dd, IL 61702 217-691-0642 Pag: 217-495-0656 bri @facilab.com

28-Apr-05

Steve Bishoff Rapps Engineering & Applied Science 821 S. Durkin Dr. P.O. Box 7349 Springfield, IL 62704

TEL: (217) 787-2118 FAX: (217) 787-5641

RE: Rappe, Lincoln

Order No.: 0504050

Dear Steve Bishoff:

TMI Analytical Services, LLC received 10 sample(s) on 4/21/2005 for the analyses presented in the following report,

There were no problems with the analyses unless noted on the case narrative or qualified on the analytical results. The final report includes this cover letter, analytical report and a copy of the chain of custody. It may also include but not be limited to letters of explanation or raw data.

Erics Treadway Inorganic Supervisor

TMI Analytical Services, LLC

Date: 28-Apr-05

Lab Order:

Ruppu Engineering & Applied Science Project: Rappe, Lincoln (CSD44DSD)

CASE NARRATIVE

All samples were received and analyzed within method required lankling times onless noted below. Samples met specified acceptance criteria except where noted below or qualified on the report.

Report Qualifiers:

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| CLURNI': Rupps Emplocates & Applie Project: Rupps, Lincoln | d Science | 1 | ab Orden | 0504050 | CLIENT: Project: | Rappe Engineering & App Rappe, Lincoln | Ext Science | | | Order: 050405) |
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FACILITI. LINCOLN PLACE MHP

DMR SUMMARY

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| 9/30/2003 | 0.046 | 0.050 | 0.105 | (0.212) | 8.0 | B .0 | 44 | 2 | 2 | | 1 | 2 | 142 | | | | | 0.49 | 460 | | |
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| 12/31/2004 | .046 | .052 | .053 | .079 | 2.8 | 8.1 | 68 | 2 | 2 | | 2 | 2 | 68 | | | | | 0.75 | | | |
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| uit Limits | - | - , | | 3 0.100 D M&D | | 9 | - | 37 | 45 | - | 25 | 40 | | ~ | _ | - | - | 0.7 | 5 400 (Mo | 1/100 ml 4 > Uct.) | |

Attachment #2

Memo

To:

Richard Harry @ Greene and Bradford

From:

Steve Bishoff @ Rapps

Date:

4/30/05

Re:

Lincoln Mobile Home Park

Richard -

Attached are the results from the sampling I undertook last week at the Lincoln Mobile Home Park. The results are summarized below.

| Sample No. | Sample Description | BOD | <u>TSS</u> |
|------------|--------------------|-------------|------------|
| L-1 | 0 to 1' Depth | < 12.0 mg/L | 46.0 mg/L |
| L-2 | 1' to 2' Depth | < 12.0 mg/L | 51.6 mg/L |
| L-3 | 2' to 3' Depth | < 12.0 mg/L | 54.1 mg/L |
| L-4 | 3' to 4' Depth | < 12.0 mg/L | 47.8 mg/L |
| L-5 | 4' to 5' Depth | < 12.0 mg/L | 51.6 mg/L |
| L-6 | 5' to 6' Depth | < 12.0 mg/L | 56.7 mg/L |
| L-7 | 6' to 7' Depth | < 12.0 mg/L | 54.0 mg/L |
| L-8 | 7' to 8' Depth | < 12.0 mg/L | 63.9 mg/L |
| L-9 | 8' to 9' Depth | < 12.0 mg/L | 51.6 mg/L |
| L-10 | 9' to 10' Depth | < 12.0 mg/L | 53.6 mg/L |

Also, the result of the grab sample for fecal coliform was 4,500 / 100ml.

As soon as I get the signed laboratory reports, I will forward them to your attention. If you have any questions, please call.



ATTACHMENT #3

Lincoln Place Sewer Lagoon Repairs

| | | T | |
|---------------------------------------|---|-------------------------------|--|
| ltem | Cost | Vendor | Comments |
| | *************************************** | · | |
| | | | 100 tons of new sand required to be added to existing sand in filters before |
| | | | cleaning the filters. This cost includes trucking sand to property but not down to |
| New sand for Filters | \$1,165.00 | Vulcan Construction Materials | filters. |
| · · · · · · · · · · · · · · · · · · · | | · | |
| | | | Transport sand down to filters from drop point and adding it to the existing sand in |
| Trucking Sand | \$500.00 | Thomas Newell | the filters. |
| Sand Filter Cleaning | \$6,000.00 | Thomas Newell | This cost includes cleaning of both filters to make them 100% functional. |
| Cand Taker Clearing | Ψ0,000,0ψ | THOMAS NOWER | This cost monades decising of boar mens to make men 100% fundament. |
| Repair of Butterfly Valve | \$1,126.00 | Petersburg Plumbing | Repair a broken valve used to sub divide the sand filters. See attached quote. |
| | | | |
| | | | This sub total are the items that need to be done to provide a functional |
| Sub-Total: | \$8,791.00 | 45° - 7 | filtration system. All this can be done with-out a variance. |
| | | | |
| | | | A variance needs to be requested and we may need to rent or borrow some |
| | | į. | pumps to be used to bring the level down quickly. This cost is unknown at this |
| | | | point. The lagoon level would need to drop about 10 feet to properly repair all |
| Lowering of water level | | EPAWater Compliance Group | items. |
| | | T | |
| | | | Repair the baffle wall floats and re-attach the wall at the mooring point in the |
| Screening repairs | \$6,256.00 | Petersburg Plumbing | water. This can not be done until the water level is lowered. See attached quote. |
| | | T | Core drill or use existing openings to install three (3) new 6" gate valves with |
| | | | handwheels including stems and standoffs to mount the handwheels where they |
| Installation of new intake valves | \$5,836.00 | Petersburg Plumbing | can be reached from the lift station. See attached quote. |
| Installation of new intake valves | \$3,030.00 | Petersburg Plumbing | can be reached from the lift stanon. See attached quote. |
| | | T | This sub total are the items that should be done to make the total facility |
| | | | more efficient to run. The screening would need to be done to reduce the |
| Sub-Total: | \$12,092.00 | | chance of further damage in the future. |
| | | | |
| Total: | \$20,883.00 | | Total of all items listed above. |
| | ~~~~ | | |

Petersburg Plumbing and Heating Co.

P.O. Box 440 • 117 North 7th Street PETERSBURG, ILLINOIS 62675 (217) 632-2221

| Truchner | T |
|----------|---|
| Back-V | P |

| Attus Mu Kaith Chupauta | | |
|--|--|-------------------------------------|
| Attn: Mr. Keith Shugerts | PHONE | DATE |
| Essex Partners, Inc. | 1-585-272-2350 | March 9, 2005 |
| 175 Corporate Woods, Suite 110 | Lincoln Place - Lago | oon Repairs |
| Rochester, NY 14623 | Springfield IL | |
| ARCHITECT DATE OF PLANS | JDI IIIGI ICIGA IL | JOS PHONE |
| None | | |
| We haveby submit specifications and estimates for: Furnish labor, material and equipment to: (C | Owner to drop lagoon w | ater level by 10 feet and |
| remove and re-install floating aerators if req | uired) | • |
| 1. Core drill 3 holes or use existing openin | gs if possible to inst | all 3 each 6 inch flanged |
| gate valves with handwheels. Includes extensi | on stems and stand-off | s to mount the handwheels |
| where they can be reached from the top of the | lagoon effluent lift s | tation. |
| Not To Excee | ed \$5,836.00 | |
| 2. Replace broken butterfly valve in the sand | filter piping. | |
| Not To Excee | ed \$1,126.00 | |
| 3. Install a swivel 90 bend to the lowest ne | w 6 inch gate valve in | n Item 1, draw-off piping |
| and winch mechanism to raise and lower piping. | <u> </u> | |
| · · · · · · | ed \$8,726.00 | |
| 4. Repair baffle wall floats and mooring post | • | |
| | ed \$6,256.00 | |
| | | • |
| | • | • |
| | | • |
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| | | |
| We Brasings hereby to furnish material and labor c | complete in accordance with ab | ove specifications, for the sum of: |
| | _ | laliars (\$). |
| Payment to be made as follows: | C | ionars (3 |
| Net 30 Days | | |
| | | |
| All material is guaranteed to be an apechied. All work to be completed in a workmanlike manner according to extender gractices. Any alteration or deviction from above apocifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreement contingent upon strike, acceptate of delays beyond our control. Owner to carry fire, ternedo and other necessary inpurance. Our workers are fully covered by Workman's Compensation Insurance. | Authorized Signature Kimi A. Favero Note: This proposal may withdrawn by us if not accepted with | be 60 |
| | | |
| Acceptance of Jrupusal — The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified, Payment will be made as authined above. | Signature | |
| Date of Acceptance: | Signature | |

Attachment #4

Description of Environmental Impact

The owners of the Lincoln Mobile Home Park, Sangamon County, Illinois, operate a privately owned Wastewater Treatment Facility (WWTF) for the residents of the park. The WWTF is a three-cell aerated lagoon followed by a sand filter and disinfection facilities. The lagoon cells are divided by a proprietary fabric baffle wall. The wall prevents short-circuiting of the lagoon flow from cell to cell. The aerators are pontoon-mounted units. The owner has an NPDES permit with an outfall to the Sangamon River.

The lagoon has an average depth of 11 feet (allowing for 2 feet of freeboard). The effluent is pumped from the lagoon to the sand filter. There is one operational draw off for the pump station located approximately 4.5 feet up from the lagoon bottom. Another existing draw off located approximately 2 feet from the bottom is non-functional. There are no additional draw off pipes.

The WWTF was flooded by the Sangamon River in 2002. The flood damaged a mooring for the baffle curtain, and also fouled the sand filter with river sediment.

The owner is proposing to lower the lagoon 6-6.5 feet in order to make the repairs to the baffle curtain mooring, and to install additional draw-offs in the pump station. The owner is requesting a variance from the IEPA to by-pass the filter and disinfection processes, and discharge the effluent to the Sangamon River.

The filter and disinfection process are sized by design standards for an average of 53,000 gallons/day. It is not feasible to draw down the lagoon through the filter and disinfection process due to the time required for a draw-down. The maximum discharge limit as set by the NPDES permit is 100,000 gallons/day. The average influent to the lagoon is 53,000 gallons/day. The net effect would be a pumpage of approximately 50,000 gallons/day to effluent. This would require 70 days to reach the desired lagoon level for the repairs. Also, this does not account for excessive flows, which occur during wet weather. The owner is in a difficult position to fluctuate the lagoon levels even in a normal operational strategy to provide storage in anticipation of wet weather conditions.

Attachment #1 is a summary of the Discharge Monitoring Reports (DMR'S) from September 2003 to January, 2005, as provided by the owner's contract operator. The regulated discharge limits for BOD, TSS, and fecal coliforms, are 25 ppm, 37 ppm, and 400/100 ml respectively. The maximum discharge limits for BOD and TSS are 40 ppm and 45 ppm respectively. The averages for the treated effluent for the 16-month period are 5 ppm BOD and 5 ppm TSS.

Field samples were taken on April 21, 2005 to determine the water quality in the lagoon in Cell #3 prior to discharge to the sand filter. Samples were taken at 1 foot intervals of depth starting at 6 inches deep to approximately 10 foot deep. The testing was done to determine a profile of the water quality for the desired depth of de-watering requested by the owner. A summary of the lab results are in Attachment #2. The BOD at all depths was tested to be lower than the regulatory limit of 12 ppm. The TSS varied between 46 ppm at 6 inches to 64 ppm at 7.5 feet. The average of the samples TSS is 53 ppm. The fecal coliforms tested at 4500/100 ml.

The samples show that the BOD concentrations would have no adverse impact on the environment if IEPA allowed a variance to discharge without filtration. However, the TSS samples show that there would be a minimal environmental impact to the receiving water if a variance were allowed.

Environmental Protection Agency

Suspended solids are a physical indicator of wastewater quality. These are regulated to reduce discharge of solids to open waters in order to prevent anaerobic conditions and sludge deposition. The owner is proposing to pump the lagoon level down 6.5 feet from the present level. This would require pumpage of approximately 3.5 million gallons. The pumpage would need to be at a rate of about 500 gallons/minute for a draw down period of five-six days. Thus, the flow to the river would be about 720,000 gallons/day. This would result in an extra loading of solids to the river of about 80 pounds per day above the regulatory limit. The total extra loading for ten days would be about 400 pounds of solids.

If the existing treatment process is considered (using the avg TSS of 5 ppm), normally the plant is below the discharge limit of solids by a factor of 32 ppm, or 14 pounds per day at an average flow of 53,000 gpd.

Thus, the net effect is that they would produce 400 pounds of extra solids by not filtering for a five day period, yet would be able to recover by normal plant operations in a period of about one month (30 days X 14 pounds per day = 420 pounds).

The short term negative impact of solids loading can be considered minor in comparison to the long term benefit of making the plant improvements to maintain the high quality of effluent over the long term.

The fecal coliform concentration is used as an indicator of pathogenic organisms in wastewater. Disinfection is used to lower fecal coliform counts during the season from May-October because of the recreational use of the river. The disinfection exemption is in effect from November to May. It has recently expired for this season (today's date May 4).

The negative impact of allowing higher fecal concentrations during the recreational season is that the water could be ingested by a person being submerged in the river at the location of the discharge. There is risk in allowing a higher concentration limit for a short period of time (5-6 days). However, that risk is minimal considering the season is still cool in temperature, and also offset by the normal seasonal risk of relaxing the limits for a six month period. A variance for this requirement would have minor environmental impact in comparison with the positive impact of the proposed improvements.

In summary, the owner is requesting a temporary variance from the NPDES limits for TSS and fecal coliforms for a short term period in order to bypass the flows and complete the necessary repairs. The owner is proposing that the TSS shall not exceed 60 ppm as a result of the bypass operations.

Respectfully Submitted,

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