

Norlite Corporation



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June 18, 2003

Mr. William J. Clarke
NYS Department of Environmental Conservation
Region 4 - Division of Environmental Permits
1150 N. Westcott Road
Schenectady, New York 12306-2014

CERTIFIEDMAIL# 70022030000015882839
RETURN RECIEPT REQUESTED

Re: SPDES Permit Modification - Norlite Corporation
DEC No. 4-0103-00016/00020, SPDES No. NY 0004880

Dear Mr. Clarke:

The enclosed engineering report is for a modification to the existing Industrial State Pollution Discharge Elimination System (SPDES) permit for the Norlite Corporation facility in Cohoes, New York. This modification is submitted as indicated in a letter dated May 30, 2003 that was sent to Ms. Carol Lamb-LaFay of NYSDEC Region 4. The letter indicated Norlite would be preparing a modification for the following:

- Allow plant water to be introduced directly into the effluent storage tanks for cooling purposes;
- Allow the point of compliance for monitoring metals to be moved to a point after the carbon filters and before the effluent tanks;
- Allow non-contact trunion water to be introduced directly into the effluent storage tanks.
- Treat the wastewater with ferric chloride or ferrous sulfate, as the primary coagulant.

Downstream hydrogen sulfide monitoring will be processed under separate communication.

It is Norlite's belief that the above modifications will present no negative impact on the operations or maintenance of the WWTP.

If you have any questions, please call me at (518) 235-0401 ext. 4037.

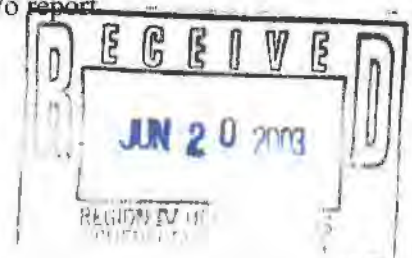
Sincerely,

A handwritten signature in cursive script that reads "Timothy F. Lachell".

Timothy F. Lachell
Plant Manager

Enclosure

cc: Carol Lamb-Lafay, NYSDEC Region 4, w/ report
James M. Harrington, Division of Water, NYSDEC Central Office, w/o report
Rodney L. Aldrich, w/o report





Sterling Environmental Engineering, P.C.

NORLITE CORPORATION

ENGINEERING REPORT: MODIFICATIONS TO THE SCRUBBER BLOWDOWN WASTEWATER TREATMENT PLANT AND APPLICATION FOR MODIFICATION OF THE SPDES PERMIT

Prepared For:

Norlite Corporation
628 So. Saratoga Street
P.O. Box 694
Cohoes, NY 12047

Prepared By:

Sterling Environmental Engineering, P.C.
Columbia Circle Office Park
One Columbia Circle
Albany, New York 12203

June 19, 2003



NORLITE CORPORATION
ENGINEERING REPORT:
MODIFICATIONS TO THE SCRUBBER BLOWDOWN
WASTEWATER TREATMENT PLANT
AND APPLICATION FOR MODIFICATION OF THE SPDES PERMIT

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L21033/Norlite_ENGRPT_toc_rev2001.doc

1.0 INTRODUCTION

Sterling Environmental Engineering, P.C. (STERLING) is submitting this Engineering Report to modify the existing State Pollutant Discharge Elimination System (SPDES) Permit (Permit ID #NY0004880). This Engineering Report requests a modification to the design and operation of the existing Norlite Corporation (Norlite) Wastewater Treatment Plant (WWTP).

The Norlite facility is located on the southern boundary of the City of Cohoes, Albany County, New York. Figure 1, "Site Location Map," shows the general location of the subject property. The subject property is approximately 220 acres in size, and consists of a shale quarry and an industrial facility that produces lightweight aggregate for construction industries. The subject property has variable topography, however generally slopes downward from west to east.

The existing WWTP was designed and is presently operated to treat scrubber water blowdown from the facility's kiln air pollution control system. This treated effluent is permitted to be discharged through SPDES outfall #006 at the facility. The New York State Department of Environmental Conservation (NYSDEC) has requested certain modifications to the existing SPDES Permit for the Norlite facility. Likewise, the permittee seeks modifications, as well.

This Engineering Report contains all of the requirements for a modification to the existing SPDES Permit. The modifications will occur at the WWTP that discharges to the Mohawk River. A completed Short Environmental Assessment Form (EAF) is presented as Appendix A.

2.0 PURPOSE AND OBJECTIVES

This Engineering Report has been prepared for the purpose of modifying Norlite's SPDES Permit to:

- Treat the wastewater with ferric chloride or ferrous sulfate, as the primary coagulant;
- Allow plant water to be introduced directly into the effluent storage tanks for cooling purposes;
- Allow the point of compliance for monitoring metals to be moved to a point after the carbon filters and before the effluent tanks; and
- Allow non-contact trunnion cooling water to be introduced directly into the effluent storage tanks.

3.0 BASIS OF DESIGN

The scrubber water blowdown treatment system has been designed in accordance with the standards set forth in the Technical Operational Guidance Series (TOGS) 1.2.1 Industrial Permit Writing, and the 1988 NYSDEC publication, "Design Standards for Wastewater Treatment Works".

Although Norlite's current operation of the WWTP is in full compliance with its SPDES Permit, the modification requested to the treatment system is designed to improve operational efficiency while being responsive to requests by the NYSDEC. The basis of design for each specific modification is described below.

3.1 Iron Treatment

The scrubber water blowdown is currently treated with ferrous sulfate as the primary coagulant. Norlite will use ferric chloride in place of ferrous sulfate as the primary coagulant. Iron is the principle coagulant in both ferric chloride and ferrous sulfate. Norlite intends to reduce the overall system sulfur loading by replacing ferrous sulfate with ferric chloride. The reduction of system sulfur loading will assist to reduce the potential to form hydrogen sulfide in the system or downstream of the plant. Norlite will maintain the same dosage of iron using ferric chloride according to Section 4 of the WWTP Operators Manual dated April 7, 1997, a copy of which the NYSDEC already possesses. The current minimum dosage of iron via ferrous sulfate is 25 lbs/hour of ferrous sulfate, which equates to 15 lbs/hr of ferric chloride to maintain the same iron mass loading. Ferric chloride can be substituted for the ferrous sulfate with unaltered treatment removals. Norlite reserves the option to use either ferric chloride or ferrous sulfate depending on market availability of product, although the intent is to use ferric chloride exclusively.

3.2 Effluent Cooling

Norlite's SPDES Permit limits the discharge of effluent to a temperature of 115° Fahrenheit (F) at the WWTP. Although Norlite is currently in compliance, the following modifications to the wastewater treatment system are proposed to ensure Norlite continues to meet its thermal discharge limit.

Norlite will utilize plant water to cool the water in the effluent storage tanks prior to discharge. This process is consistent with Pages 44 and 45 of the report, "Engineering Report for Norlite, Inc., Proposed Wastewater Treatment Process", dated August 10, 1994. Norlite will not be evaluating an effluent cooler as discussed in the 1994 report. The plant water is water that has been pumped from the onsite quarry and treated via a sand filtration system. This water is relatively cool and will effectively cool the effluent prior to discharge. This activity may be required during the summer months to ensure compliance with the temperature limitation in the SPDES Permit.

The addition of plant water to the effluent will also aid to reduce the potential to form hydrogen sulfide downstream of the plant.

3.3 Point of Compliance

The introduction of this plant water will cause the water in the effluent storage tanks to be a mixture of treated scrubber water blowdown, non-contact trunnion cooling water, and plant water. To avoid a situation where the chemical parameters in the treated scrubber water blowdown are being diluted by the plant and non-contact trunnion cooling water, the NYSDEC proposes to move the sampling point for compliance for metals parameters to a point after the carbon filters and before the effluent tanks. All other SPDES parameters will continue to be monitored after the effluent discharge pump.

3.4 Non-Contact Trunnion Cooling Water

Norlite's kiln operation produces non-contact trunnion cooling water that must be discharged from the trunnion when it becomes too hot. Currently the non-contact trunnion cooling water is being introduced into the overflow collection tank for treatment by pH adjustment, particulate filtering and carbon adsorption. The introduction of the non-contact trunnion water to the overflow collection tank places additional hydraulic loading on the polishing, sand, and carbon filters. Norlite proposes to place the non-contact trunnion cooling water directly into the effluent tanks, thereby eliminating the additional hydraulic loading of the filters and the dilution of the scrubber water blowdown. Additionally, the non-contact trunnion cooling water enters the system at approximately 80° F, therefore providing some additional cooling to the effluent tanks. Based on recent analysis (see Appendix B) the non-contact

trunnion cooling water meets the discharge criteria without filtration or carbon adsorption treatment. Norlite will retain the ability to discharge the non-contact trunnion cooling water into the overflow collection tank should it be necessary for treatment of the water during an "upset" condition.

4.0 MODIFICATIONS TO THE WASTEWATER TREATMENT PLANT

The scrubber blowdown wastewater treatment system is located in the approximate location shown on Plate 1. This treatment system is depicted as Process & Instrumentation Diagrams (PID) in Drawings 23029002, 23029003 and 23029004. Drawing 23029002 depicts the following critical flow steps on the scrubber water blowdown treatment system:

- Equalization at the Equalization Tank, TK-4601;
- Flocculation at the Flocculation Tank TK-4604;
- Clarification at the Clarifier CL-4612; and
- pH neutralization and flow equalization at the Overflow Collection Tank TK-4613.

Drawing 23029003 depicts the subsequent critical flow step through the Sand Filter.

Drawing 23029004 depicts the subsequent critical flow steps on the scrubber water blowdown treatment system:

- Polishing at the Polishing Filters F-4625 A, B, C, and D;
- Carbon filtration at the Carbon Filtration Systems F-4626 A and B, or if needed, F-4627 A and B; and
- Flow equalization and sulfide reduction control at the Effluent Storage Tanks TK-4628 A and B.

The process modifications are described in more detail in the following sections.

4.1 Iron Mix Tanks

Ferric Chloride has been added as an input to the Iron Mix Tanks in Drawing 23029003.

4.2 Effluent Storage Tanks

A system for the introduction of Non-contact Trunnion Cooling Water and Plant Water into the effluent tanks is depicted in Drawing 23029004.

4.3 Point of Compliance Monitoring Point

The compliance monitoring point is depicted between the Carbon Filters and the Equalization Tanks on Drawing 23029004 and labeled as Compliance Sampling Point #2.

4.4 Metals Precipitating Agent System

The Metals Precipitating Agent (MPA) System has been removed from Drawing 2302009. The MPA System has not been used since the startup of the WWTP in 1997 and was replaced by iron as the primary coagulant.

5.0 UNIT OPERATIONS AND MONITORING

The modifications to the system will present no impact on the operations or maintenance of the WWTP.

Monitoring for the following parameters will occur at the new point of compliance:

- Arsenic, Total
- Barium, Total
- Beryllium, Total
- Cadmium, Total
- Chromium, Total
- Copper, Total
- Iron, Total
- Lead, Total
- Mercury, Total
- Nickel, Total
- Selenium, Total
- Zinc, Total.

Monitoring for the following parameters will continue in the effluent discharge line:

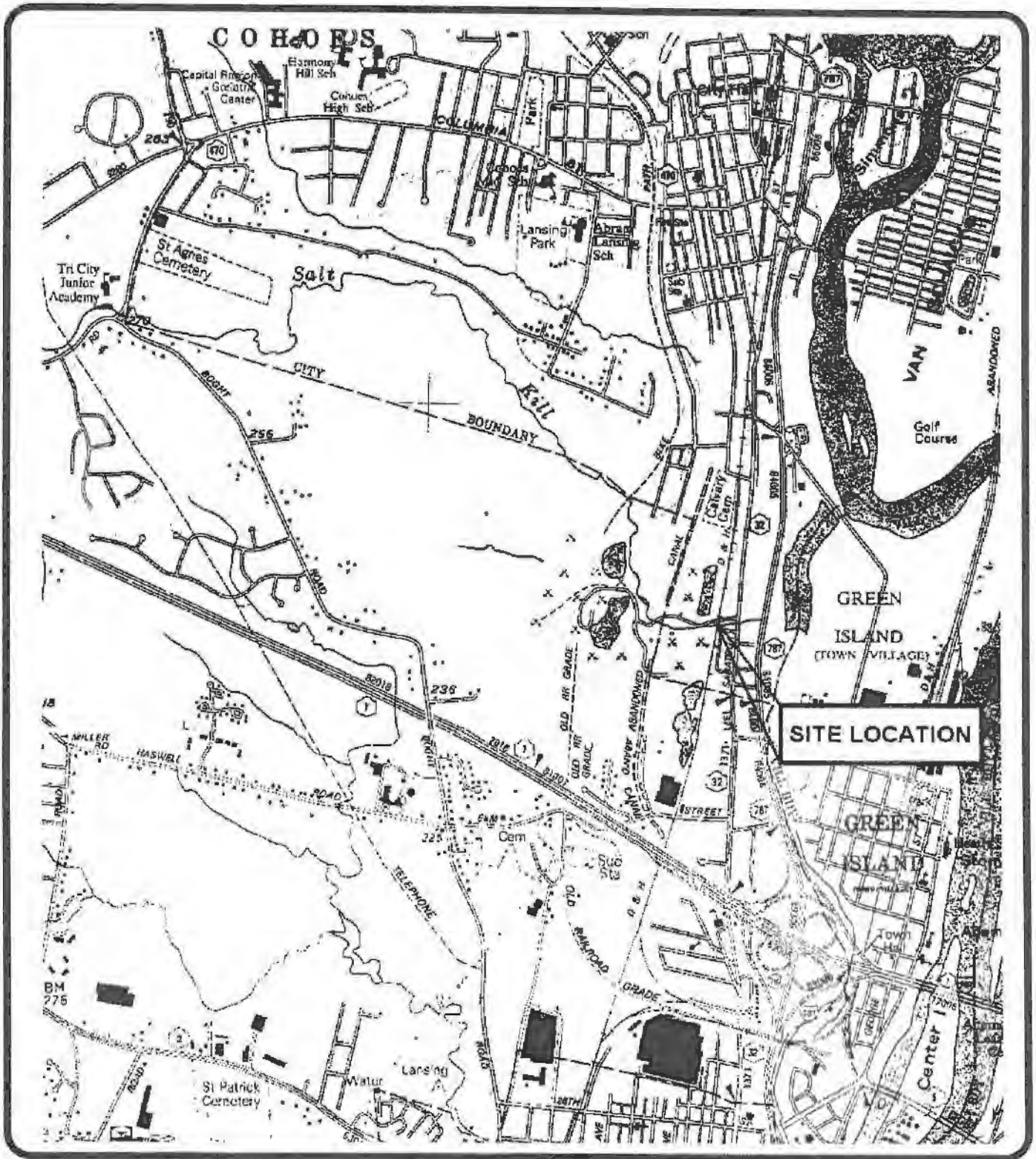
- Flow
- Temperature
- pH
- Solids, Total Suspended
- Solids, Total Dissolved
- Total Chlorine Residual
- NH₃
- Chlorides.

5.0 ENVIRONMENTAL CONDITIONS

A completed Short Environmental Assessment Form is attached as Appendix A. The proposed project is expected to have a positive impact upon the surrounding environment in that it provides for the continued treatment of the scrubber water blowdown, while reducing the release of sulfur compounds in the effluent, allowing cooling of the effluent, and avoiding dilution of the wastewater flow prior to measuring compliance for metal parameters.

The proposed project is consistent with the prevailing land use in the vicinity of the property, which is industrial in nature. There are no significant habitats, historic or aesthetic resources on the subject property that would be affected by the project.

FIGURE 1
SITE LOCATION MAP



STERLING
Sterling Environmental Engineering, P.C.

One Columbia Circle, Albany, New York 12203

Figure 1
Site Location

NORLITE FACILITY

COHOES, NY

PROJ. No.: 23029

Date: 06/18/03

SCALE: 1" = 2,000'

Dwg. No.: 23029005

FIGURE 1

PLATES AND DRAWINGS

APPENDIX A

SHORT ENVIRONMENTAL ASSESSMENT FORM (EAF)

PROJECT ID NUMBER

617.20

SEQR

APPENDIX C

STATE ENVIRONMENTAL QUALITY REVIEW

SHORT ENVIRONMENTAL ASSESSMENT FORM

for UNLISTED ACTIONS Only

PART 1 - PROJECT INFORMATION (To be completed by Applicant or Project Sponsor)

1. APPLICANT / SPONSOR Norlite Corporation	2. PROJECT NAME Scrubber Wastewater Treatment Modification
3. PROJECT LOCATION: Municipality Cohoes	County Albany
4. PRECISE LOCATION: Street Address and Road Intersections, Prominent landmarks etc - or provide map Scrubber Wastewater Treatment Facility	
5. IS PROPOSED ACTION: <input type="checkbox"/> New <input type="checkbox"/> Expansion <input checked="" type="checkbox"/> Modification / alteration	
6. DESCRIBE PROJECT BRIEFLY: Allow a revised treatment chemical, revised plant water introduction for cooling purposes, allow a point of compliance for metals monitoring that will be upstream of flow dilution, and allow non-contact trunion cooling water to be introduced into the effluent tank.	
7. AMOUNT OF LAND AFFECTED: Initially 0 acres Ultimately 0 acres	
8. WILL PROPOSED ACTION COMPLY WITH EXISTING ZONING OR OTHER RESTRICTIONS? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, describe briefly:	
9. WHAT IS PRESENT LAND USE IN VICINITY OF PROJECT? (Choose as many as apply.) <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Agriculture <input type="checkbox"/> Park / Forest / Open Space <input type="checkbox"/> Other (describe)	
10. DOES ACTION INVOLVE A PERMIT APPROVAL, OR FUNDING, NOW OR ULTIMATELY FROM ANY OTHER GOVERNMENTAL AGENCY (Federal, State or Local)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, list agency name and permit / approval:	
11. DOES ANY ASPECT OF THE ACTION HAVE A CURRENTLY VALID PERMIT OR APPROVAL? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, list agency name and permit / approval: SPDES #NY-0004880	
12. AS A RESULT OF PROPOSED ACTION WILL EXISTING PERMIT / APPROVAL REQUIRE MODIFICATION? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No SPDES #NY-0004880	
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE TO THE BEST OF MY KNOWLEDGE	
Applicant / Sponsor Name Timothy Lachell	Date: 6/18/03
Signature: <i>Timothy F. Lachell</i>	

If the action is a Coastal Area, and you are a state agency,
complete the Coastal Assessment Form before proceeding with this assessment

PART II - IMPACT ASSESSMENT (To be completed by Lead Agency)

A. DOES ACTION EXCEED ANY TYPE I THRESHOLD IN 6 NYCRR, PART 617.4? If yes, coordinate the review process and use the FULL EAF.
 Yes No

B. WILL ACTION RECEIVE COORDINATED REVIEW AS PROVIDED FOR UNLISTED ACTIONS IN 6 NYCRR, PART 617.6? If No, a negative declaration may be superseded by another involved agency.
 Yes No

C. COULD ACTION RESULT IN ANY ADVERSE EFFECTS ASSOCIATED WITH THE FOLLOWING: (Answers may be handwritten, if legible)

C1. Existing air quality, surface or groundwater quality or quantity, noise levels, existing traffic pattern, solid waste production or disposal, potential for erosion, drainage or flooding problems? Explain briefly:

C2. Aesthetic, agricultural, archaeological, historic, or other natural or cultural resources; or community or neighborhood character? Explain briefly:

C3. Vegetation or fauna, fish, shellfish or wildlife species, significant habitats, or threatened or endangered species? Explain briefly:

C4. A community's existing plans or goals as officially adopted, or a change in use or intensity of use of land or other natural resources? Explain briefly:

C5. Growth, subsequent development, or related activities likely to be induced by the proposed action? Explain briefly:

C6. Long term, short term, cumulative, or other effects not identified in C1-C5? Explain briefly:

C7. Other impacts (including changes in use of either quantity or type of energy? Explain briefly:

D. WILL THE PROJECT HAVE AN IMPACT ON THE ENVIRONMENTAL CHARACTERISTICS THAT CAUSED THE ESTABLISHMENT OF A CRITICAL ENVIRONMENTAL AREA (CEA)? (If yes, explain briefly:
 Yes No

E. IS THERE, OR IS THERE LIKELY TO BE, CONTROVERSY RELATED TO POTENTIAL ADVERSE ENVIRONMENTAL IMPACTS? If yes explain:
 Yes No

PART III - DETERMINATION OF SIGNIFICANCE (To be completed by Agency)

INSTRUCTIONS: For each adverse effect identified above, determine whether it is substantial, large, important or otherwise significant. Each effect should be assessed in connection with its (a) setting (i.e. urban or rural); (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude. If necessary, add attachments or reference supporting materials. Ensure that explanations contain sufficient detail to show that all relevant adverse impacts have been identified and adequately addressed. If question d of part ii was checked yes, the determination of significance must evaluate the potential impact of the proposed action on the environmental characteristics of the CEA.

Check this box if you have identified one or more potentially large or significant adverse impacts which **MAY** occur. Then proceed directly to the FULL EAF and/or prepare a positive declaration.

Check this box if you have determined, based on the information and analysis above and any supporting documentation, that the proposed action **WILL NOT** result in any significant adverse environmental impacts **AND** provide, on attachments as necessary, the reasons supporting this determination.

 Name of Lead Agency

 Date

 Print or Type Name of Responsible Officer in Lead Agency

 Title of Responsible Officer

 Signature of Responsible Officer in Lead Agency

 Signature of Preparer (If different from responsible officer)

APPENDIX B

ANALYSIS



NORLITE LABORATORY REPORT

CLIENT NAME: NORLITE CORPORATION

DATE/TIME SAMPLED: 06/06/03 14:30

DATE/TIME RECEIVED: 06/06/03 14:35

SAMPLE CONDITION/COMMENTS: SAMPLE WAS RECEIVED AT AMBIENT TEMPERATURE AND PRESERVED PROPERLY.

SAMPLE INFORMATION

<u>LAB ID #</u> 04-0823	<u>CLIENT ID</u> TRUNNION WATER	<u>LOCATION</u> WASTE WATER PLANT
----------------------------	------------------------------------	--------------------------------------

TOTAL METALS (EPA Method 200.7)

TOTAL METALS

<u>ANALYTE</u>	<u>SAMPLE RESULT (ug/L)</u>	<u>Date Analyzed</u>	<u>pH Results (EPA 150.1)</u>	<u>ANALYSIS DATE</u>
ARSENIC	< 56.0	06/09/03	7.39	06/06/03
BARIUM	73.0	06/09/03	<u>Temp(oF) (EPA 170.1)</u>	<u>ANALYSIS DATE</u>
BERYLLIUM	< 3.0	06/09/03	78.1	<u>06/06/03</u>
CADMIUM	< 9.0	06/09/03	<u>TSS(mg/L) (SM 18-2540D)</u>	<u>ANALYSIS DATE</u>
CHROMIUM	< 6.0	06/09/03	8	06/09/03
COPPER	7.0	06/09/03	<u>TDS(mg/L) (SM 18-2540C)</u>	<u>ANALYSIS DATE</u>
IRON	492.0	06/09/03	701	06/10/03
NICKEL	< 12.0	06/09/03	<u>CHLORIDE(mg/L) (EPA 300)</u>	<u>ANALYSIS DATE</u>
LEAD	< 20.0	06/09/03	22.0	06/09/03***
SELENIUM	< 25.0	06/09/03	<u>OIL & GREASE(mg/L) (EPA 1664)</u>	<u>ANALYSIS DATE</u>
ZINC	37.0	06/09/03	< 1.0	06/10/03***
MERCURY**	< 0.2	06/09/03	<u>RES Cl-(mg/L) (HACH)</u>	<u>ANALYSIS DATE</u>
			< 0.1	06/06/03

** Mercury was determined by following EPA Method 245.2.

*** AES ELAP# 10709

LABORATORY APPROVAL FOR RELEASE OF DATA: 

DATE OF DATA RELEASE: 6/17/03



NORLITE LABORATORY REPORT

CLIENT NAME: NORLITE CORPORATION

DATE/TIME SAMPLED: 06/07/03 09:24

DATE/TIME RECEIVED: 06/07/03 09:24

SAMPLE CONDITION/COMMENTS: SAMPLE WAS RECEIVED AT AMBIENT TEMPERATURE AND PRESERVED PROPERLY.

SAMPLE INFORMATION

<u>LAB ID #</u>	<u>CLIENT ID</u>	<u>LOCATION</u>
04-0824	TRUNNION WATER	WASTE WATER PLANT


TOTAL METALS (EPA Method 200.7)

TOTAL METALS

<u>ANALYTE</u>	<u>SAMPLE RESULT (ug/L)</u>	<u>Date Analyzed</u>	<u>pH Results (EPA 150.1)</u>	<u>ANALYSIS DATE</u>
ARSENIC	< 56.0	06/09/03	7.55	06/07/03
BARIUM	76.0	06/09/03	<u>Temp(oF) (EPA 170.1)</u>	<u>ANALYSIS DATE</u>
BERYLLIUM	< 3.0	06/09/03	71.4	06/07/03
CADMIUM	< 9.0	06/09/03	<u>TSS(mg/L) (SM 18-2540D)</u>	<u>ANALYSIS DATE</u>
CHROMIUM	< 6.0	06/09/03	7	06/09/03
COPPER	< 5.0	06/09/03	<u>TDS(mg/L) (SM 18-2540C)</u>	<u>ANALYSIS DATE</u>
IRON	647.0	06/09/03	463	06/10/03
NICKEL	< 12.0	06/09/03	<u>CHLORIDE(mg/L) (EPA 300)</u>	<u>ANALYSIS DATE</u>
LEAD	< 20.0	06/09/03	22.0	06/09/03***
SELENIUM	< 25.0	06/09/03	<u>OIL & GREASE(mg/L) (EPA 1664)</u>	<u>ANALYSIS DATE</u>
ZINC	< 19.0	06/09/03	< 1.0	06/10/03***
MERCURY**	< 0.2	06/09/03	<u>RES Cl-(mg/L) (HACH)</u>	<u>ANALYSIS DATE</u>
			< 0.1	06/07/03

** Mercury was determined by following EPA Method 245.2.

*** AES ELAP# 10709

LABORATORY APPROVAL FOR RELEASE OF DATA: 

DATE OF DATA RELEASE: 6/17/03



NORLITE LABORATORY REPORT

CLIENT NAME: NORLITE CORPORATION

DATE/TIME SAMPLED: 06/08/03 09:00

DATE/TIME RECEIVED: 06/08/03 09:10

SAMPLE CONDITION/COMMENTS: SAMPLE WAS RECEIVED AT AMBIENT TEMPERATURE AND PRESERVED PROPERLY.

SAMPLE INFORMATION

<u>LAB ID #</u>	<u>CLIENT ID</u>	<u>LOCATION</u>
04-0825	TRUNNION WATER	WASTE WATER PLANT

TOTAL METALS (EPA Method 200.7)

TOTAL METALS

<u>ANALYTE</u>	<u>SAMPLE RESULT (ug/L)</u>	<u>Date Analyzed</u>	<u>pH Results (EPA 150.1)</u>	<u>ANALYSIS DATE</u>
ARSENIC	< 56.0	06/09/03	8.02	06/08/03
BARIUM	76.0	06/09/03	<u>Temp(oF) (EPA 170.1)</u>	<u>ANALYSIS DATE</u>
BERYLLIUM	< 3.0	06/09/03	79.2	06/08/03
CADMIUM	< 9.0	06/09/03	<u>TSS(mg/L) (SM 18-2540D)</u>	<u>ANALYSIS DATE</u>
CHROMIUM	< 6.0	06/09/03	6	06/09/03
COPPER	5.0	06/09/03	<u>TDS(mg/L) (SM 18-2540C)</u>	<u>ANALYSIS DATE</u>
IRON	635.0	06/09/03	460	06/10/03
NICKEL	< 12.0	06/09/03	<u>CHLORIDE(mg/L) (EPA 300)</u>	<u>ANALYSIS DATE</u>
LEAD	< 20.0	06/09/03	21.0	06/09/03***
SELENIUM	< 25.0	06/09/03	<u>OIL & GREASE(mg/L) (EPA 1664)</u>	<u>ANALYSIS DATE</u>
ZINC	30.0	06/09/03	< 1.0	06/10/03***
MERCURY**	< 0.2	06/09/03	<u>RES CI-(mg/L) (HACH)</u>	<u>ANALYSIS DATE</u>
			< 0.1	06/08/03

** Mercury was determined by following EPA Method 245.2.

*** AES ELAP# 10709

LABORATORY APPROVAL FOR RELEASE OF DATA: 

DATE OF DATA RELEASE: 6/17/03