

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. CI-9055

**NRG EL SEGUNDO OPERATIONS INC.
(LONG BEACH GENERATING STATION)
FOR
(ORDER NO. R4-2003-0111, SERIES NO. 114)
(NPDES NO. CAG994004)**

I. REPORTING REQUIREMENTS

- A. The discharger shall implement this monitoring program on the effective date of this permit. The discharger shall submit monitoring reports to the Regional Board by the dates in the following schedule:

<u>Reporting Period</u>	<u>Report Due</u>
January – March	May 15
April – June	August 15
July – September	November 15
October – December	February 15

- B. The first monitoring report under this Program is due by August 15, 2006. If there is no discharge during any reporting period, the report shall so state.
- C. All monitoring reports shall include the discharge limitations in the Order, tabulated analytical data, the chain of custody form, and the laboratory report (including but not limited to date and time of sampling, date of analyses, method of analysis and detection limits).
- D. Each monitoring report shall contain a separate section titled "Summary of Non-compliance" which discusses the compliance record and corrective action taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.
- E. Before commencing a new discharge at each outfall location, a representative sample of the effluent shall be collected and analyzed for toxicity and for all the constituents listed in the Fact Sheet and the test results must meet all applicable limitations of Order No. R4-2003-0111.

March 27, 2006

II. SAMPLE COLLECTION REQUIREMENTS (AS APPROPRIATE)

- A. Daily samples shall be collected each day.
- B. Weekly samples shall be collected on a representative day of each week.
- C. Monthly samples shall be collected on a representative day of each month.
- D. Quarterly samples shall be collected in February, May, August, and November.
- E. Semi-annual samples shall be collected in May and November.
- F. Annual samples shall be collected in November.

III. EFFLUENT MONITORING REQUIREMENTS

- A. Sampling station(s) shall be established at the discharge point and shall be located where representative samples of the effluent can be obtained. Provisions shall be made to enable visual inspections before discharge. In the event of presence of oil sheen, debris, and/or other objectionable materials or odors, discharge shall not commence until compliance with the requirements is demonstrated. All visual observations shall be included in the monitoring report.
- B. If monitoring result indicate an exceedance of a limit contained in Order R4-2003-0111, the discharge shall be terminated and shall only be resumed after remedial measures have been implemented and full compliance with the requirements has been ascertained.
- C. In addition, as applicable, following an effluent limit exceedance, the discharger shall implement the following accelerated monitoring program:
 - 1. Monthly monitoring shall be increased to weekly monitoring,
 - 2. Quarterly monitoring shall be increased to monthly monitoring,
 - 3. Semi-annually monitoring shall be increased to quarterly, and
 - 4. Annual monitoring shall be increased to semi-annually.

If three consecutive accelerated monitoring events demonstrate full compliance with effluent limits, the discharger may return to the regular monitoring frequency, with the approval of the Executive Officer of the Regional Board.

D. The following shall constitute the discharge monitoring program:

Constituent	Units	Type of Sample	Minimum Frequency of Analysis
Flow	gal/day	totalizer	continuously ¹
pH	pH units	grab	monthly
Temperature	°F	grab	monthly
Total Suspended Solids	mg/L	grab	monthly
Turbidity	NTU	grab	monthly
BOD ₅ 20°C	mg/L	grab	monthly
Oil and Grease	mg/L	grab	monthly
Settleable Solids	ml/L	grab	monthly
Sulfides	mg/L	grab	quarterly
Phenols	mg/L	grab	quarterly
Residual Chlorine	mg/L	grab	quarterly
Methylene Blue Active Substances (MBAS)	µg/L	grab	quarterly
Total Petroleum Hydrocarbons	µg/L	grab	weekly ²
Chromium III	µg/L	grab	weekly ²
Chromium VI	µg/L	grab	weekly ²
Copper	µg/L	grab	weekly ²
Nickel	µg/L	grab	weekly ²
Silver	µg/L	grab	weekly ²
Zinc	µg/L	grab	weekly ²
Acute Toxicity	% survival	grab	annually

IV. EFFLUENT TOXICITY TESTING

A. The discharger shall conduct acute toxicity testing tests on 100% effluent grab samples by methods specified in 40 CFR Part 136 which cites *USEPA's Methods for Measuring the Acute Toxicity of Effluents and*

¹ Record the monthly total flow and report the calculated daily average flow and monthly flow in the quarterly and annual reports, as appropriate.

² Weekly for the first month and quarterly thereafter, if no exceedance is observed.

Receiving Water to Freshwater and Marine Organisms, October 2002, (EPA/821-R-02-012) or a more recent edition. Submission of bioassay results should include the information noted on pages 109-113 of the EPA/821-R-02-012 document.

- B. The fathead minnow, *Pimephales promelas*, shall be used as the test species for fresh water discharges and the topsmelt, *Atherinops affinis*, shall be used as the test species for brackish discharges. The method for topsmelt is found in *USEPA's Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms, First Edition, August 1195, (EPA/600-R-95/136)*.
- C. If the results of the toxicity test yields a survival of less than 90%, then the frequency of analyses shall increase to monthly until at least three test results have been obtained and full compliance with effluent limitations has been demonstrated, after which the frequency of analyses shall revert to annually. Results of toxicity tests shall be included in the first monitoring report following sampling.

V. GENERAL PROVISIONS FOR REPORTING

- A. The discharger shall inform this Regional Board 24 hours before the start of the discharge.
- B. All chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer. A copy of the laboratory certification shall be provided with the first monitoring report and each time a new and/or renewal is obtained from ELAP.
- C. Samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136.3. Proper chain of custody procedures must be followed and a copy shall be submitted with the report.
- D. As required in part H.5. of Order No. R4-2003-0111, the monitoring report shall specify the USEPA analytical method used, the Method Detection Limit and the Minimum Level for each pollutant.

VI. COMPLIANCE DETERMINATION (AS APPLICABLE)

- A. Compliance with single constituent effluent limitation – If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (see Monitoring and Reporting Requirements Section H.5. of Order R4-2003-0111), then the Discharger is out of compliance.

B. Compliance with monthly average limitations - In determining compliance with monthly average limitations, the following provisions shall apply to all constituents:

- a. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the monthly average limit for that constituent, the Discharger has demonstrated compliance with the monthly average limit for that month.
- b. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the monthly average limit for any constituent, the Discharger shall collect four additional samples at approximately equal intervals during the month. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later.

When all sample results are greater than or equal to the reported Minimum Level (see Monitoring and Reporting Requirements Section H.5. of Order R4-2003-0111), the numerical average of the analytical results of these five samples will be used for compliance determination.

When one or more sample results are reported as "Not-Detected (ND)" or "Detected, but Not Quantified (DNQ)" (see Monitoring and Reporting Requirements Section H.5. of Order R4-2003-0111), the median value of these four samples shall be used for compliance determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

- c. In the event of noncompliance with a monthly average effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the monthly average effluent limitation has been demonstrated.
- d. If only one sample was obtained for the month or more than a monthly period and the result exceed the monthly average, then the Discharger is in violation of the monthly average limit.

C. Compliance with effluent limitations expressed as a sum of several constituents – If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero, provided that the applicable ML is used.

D. Compliance with effluent limitations expressed as a median – in determining compliance with a median limitation, the analytical results in a

set of data will be arranged in order of magnitude (either increasing or decreasing order); and

- a. If the number of measurements (n) is odd, then the median will be calculated as $= X_{(n+1)/2}$, or
 - b. If the number of measurements (n) is even, then the median will be calculated as $= [X_{n/2} + X_{(n/2)+1}]/2$, i.e. the midpoint between the $n/2$ and $n/2+1$ data points.
- E. In calculating mass emission rates from the monthly average concentrations, use one half of the method detection limit for "Not Detected" (ND) and the estimated concentration for "Detected, but Not Quantified" (DNQ) for the calculation of the monthly average concentration. To be consistent with section VI.C., if all pollutants belonging to the same group are reported as ND or DNQ, the sum of the individual pollutant concentrations should be considered as zero for the calculation of the monthly average concentration.

VII. NOTIFICATION

- A. The discharger shall notify the Executive Officer in writing prior to discharge of any chemical which may be toxic to aquatic life. Such notification shall include:
1. Name and general composition of the chemical,
 2. Frequency of use,
 3. Quantities to be used,
 4. Proposed discharge concentrations and,
 5. EPA registration number, if applicable.

No discharge of such chemical shall be made prior to obtaining the Executive Officer's approval.

- B. The discharger shall notify the Regional Board via telephone and/or fax within 24 hours of noticing an exceedance above the effluent limits in Order No. R4-2003-0111. The discharger shall provide to the Regional Board within 14 days of observing the exceedance a detailed statement of the actions undertaken or proposed that will bring the discharge into full compliance with the requirements and submit a timetable for correction.

VIII. MONITORING FREQUENCIES

Monitoring frequencies may be adjusted by the Executive Officer to a less frequent basis if the discharger makes a request and the request is justified by statistical trends of monitoring data submitted. However, monitoring frequency may also increase based on site-specific conditions.

Ordered by: _____
Jonathan S. Bishop
Executive Officer

Date: March 27, 2006

/vbc