CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
81 South Higuera Street, Suite 200
San Luis Obispo, California 93401-5427

MONITORING AND REPORTING PROGRAM NO. 00-041
NPDES NO. CA0006254

For

DUKE ENERGY NORTH AMERICA
MOSS LANDING POWER PLANT, UNITS 1, 2, 6 AND 7
Monterey County

This monitoring program is required to:

- Assess compliance with the California Ocean Plan.
- Determine compliance with NPDES terms and conditions.

INFLUENT AND EFFLUENT MONITORING

Representative samples of each waste stream discharge to the Pacific Ocean shall be collected and analyzed in accordance with the following schedule*:

Constituent	Units	Discharge[1]	Sample Type	Frequency
Average Daily Flow	MGD	002	Record from Pump Operating Data	Daily
Average Daily Flow	GPD	002B,D,E,E4 E5,E6	Estimate	Daily
Temperature	^{0}F	002, and intakes	---	Daily/Instantaneous
pH	--	002, and intakes	Grab	Weekly during chlorination
Total Suspended Solids	mg/l	002B,D,E,E4	Grab[1]	Monthly
Oil and Grease	mg/l	002B,D,E,E4	Grab[1]	Monthly
Total Suspended Solids	mg/l	002E3,E5,E6	Grab	During each discharge
Oil and Grease	mg/l	002E3,E5,E6	Grab	" "
Copper	mg/l	002E3**,E6	Grab	" "
Iron	mg/l	002E3**,E6	Grab	" "
Settleable Solids	ml/l	002, and intakes	Grab	Quarterly (May, August, November & February)
Dissolved Oxygen	mg/l	002	Grab	" "

PROTECTION OF MARINE AQUATIC LIFE

Constituent	Units	Discharge[1]	Sample Type	Frequency
Arsenic	µg/l	002	Grab	Quarterly (May,Aug.Nov.Feb.)
Cadmium	µg/l	002	Grab	" "
Total Chromium	µg/l	002	Grab	" "
Copper	µg/l	002	Grab	" "
Lead	µg/l	002	Grab	" "
Mercury	µg/l	002	Grab	" "
Nickel	µg/l	002	Grab	" "
Selenium	µg/l	002	Grab	" "
Silver	µg/l	002	Grab	" "
Zinc	µg/l	002	Grab	" "
Total Residual Chlorine	µg/l	002	Grab	Weekly during chlorination
Ammonia	mg/l	002	Grab	Quarterly (May,Aug.Nov.Feb.)
Chronic Toxicity[2]	Tuc	002	Composite	Quarterly (May,Aug.Nov.Feb.)
Non-Chlorinated Phenolic Compounds	µg/l	002	Grab	Annually (May)
Chlorinated Phenolics	µg/l	002	Grab	" "

PROTECTION OF HUMAN HEALTH -- CARCINOGENS

Constituent	Units	Discharge[1]	Sample Type	Frequency
PCBs	ng/l	002	Grab	Annually (May)

* When suspended solids analysis or certain metal analysis such as copper indicate noncompliance may be due to intake water quality, concurrent intake samples should be collected to verify such is the case.

** If during chemical metal cleaning waste discharge.

1. When more than one discharge is sampled, a flow-weighted composite of grab samples may be analyzed, rather than each specific grab sample. Grab samples must be properly preserved and stored (in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" promulgated by the United States Environmental Protection Agency) for compositing with other discharge samples when they become available.

2. Bioassay tests shall be conducted in accordance with the reference below to measure TUc. Abalone shall be the most sensitive test species. Dilution and control water from the laboratory should be used. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay test and reported with the test results.

Constituent	Effect	Test Duration	Reference
Abalone (Haliotis rufescens)	Abnormal Shell development	48 hours	***

***Bioassay Reference

Weber, C.I., W.B. Horning, II, D.J. Klemm, T.W. Neiheisel, P.A. Lewis, E.L. Robinson, J. Menkedick, and F. Kessler (eds.). 1988. Short-term methods for estimating the chronic toxicity of effluents and receiving waters to marine and estuarine organisms. EPA-600/4-87/028. National Technical Information Service, Springfield, VA.

RECEIVING WATER MONITORING

The Discharger shall submit a comprehensive plan for determining the dispersion of the thermal plume under actual operating conditions six months prior to start-up of the new unit(s). The purpose of the study will be to determine compliance with the Thermal Plan requirements regarding thermal plume contact with ocean substrates. The study will cover a range of operating and environmental conditions, include worst case scenarios. The plan will be reviewed and approved by Regional Board staff and the Regional Board's independent scientists.

INTAKE STRUCTURE MONITORING

Annually, the Discharger shall measure bar rack approach velocity and sediment deposition at intake structures. The Discharger shall dredge as necessary to eliminate sand and silt buildup at intake structures and shall routinely clean bar racks as necessary to maintain bar rack approach velocities as close as practicable to design velocities.

STORM WATER MONITORING

Storm water monitoring and reporting shall be conducted in accordance with Industrial Activities Storm Water General Permit for on-going industrial activities, and Construction Activities Storm Water General Permit for any construction activities at the plant.

MONITORING BY MONTEREY BAY NATIONAL MARINE SANCTUARY

The Discharger will fund $425,000 to the Coastal Waters Evaluation Program developed by the Monterey Bay National Marine Sanctuary. The funding will be made to Monterey Bay Sanctuary Foundation in increments, with $150,000 for the first two years of the program due within 90 days of the California Energy Commission Certification of the Duke Energy Moss Landing Power Plant. The second and final payment of $275,000 is due within 90 days of commercial operation of the first new unit. The Sanctuary will use those funds to evaluate the effects of the thermal discharge with respect to the Sanctuary's permit standards. The Sanctuary will evaluate biological effects both within and near the thermal plume and at control sites substantially distant from the thermal plume. The Sanctuary will commence the Coastal Waters Evaluation Program immediately so as to conduct measurements and monitoring for up to two years prior to Duke Energy Moss Landing Power Plant new units 1 and 2 becoming fully operational. The Sanctuary and the Sanctuary Foundation are responsible for administration of the fund and will provide a report to the board of the findings within 6 years of Duke Energy's initial payment. The Discharger does not need to wait for any measurements or monitoring from the Coastal Waters Evaluation Program to commence operation of the modernized power plant.

REPORTING

Monitoring reports shall be submitted by the dates in the following schedule:

Monitoring Types	Sampling and Analyzing Frequency	Report Due
Influent and Effluent Monitoring	Daily, Weekly, Monthly Quarterly and Annually	Last day of April, July, October and January.
Intake Structure Monitoring	Annually during years of operation	Submit with the annual report of same year.

Ordered By _____

Executive Officer

_____

Date