

RESOLUTION NO. 195

*Rescinded by
Res # 216 3-28-83*

WNP-3 & 5 Ecological Monitoring

WHEREAS, The Washington Public Power Supply System has petitioned, by letter of May 21, 1981, for certain modifications to the Ecological Monitoring Program for the WNP-3 & 5 site; and

WHEREAS, Article V.C.8. of the WNP-3 & 5 Site Certification Agreement provides for the modification of the monitoring program commensurate with the intended results of the monitoring efforts; and

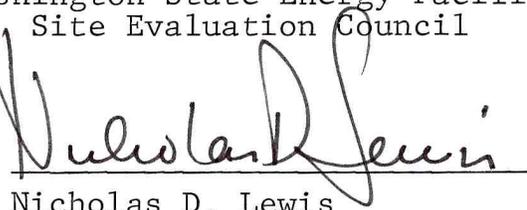
WHEREAS, The Council has reviewed the requested modifications and finds them to be both reasonable and necessary.

NOW, THEREFORE, BE IT RESOLVED, That the Council hereby approves the modifications in the WNP-3 & 5 Ecological Monitoring Program as requested by the Supply System in its letter of May 21, 1981, with enclosures, provided that field adjustments may be made by the Supply System to the "WNP-3 & 5, WATER SAMPLING STATIONS, 5/1/81" only and that such adjustments shall be limited in scope to a 20% combination of justifiable reduction or change in effort without prior Council approval.

Dated this 22nd day of June 1981.

Washington State Energy Facility
Site Evaluation Council

By


Nicholas D. Lewis
Chairman

ATTEST:

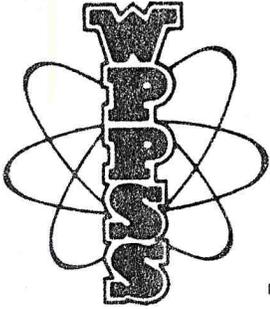
By


William L. Fitch
Executive Secretary

APPROVED AS TO FORM:

By


Kevin M. Ryan
Assistant Attorney General



Washington Public Power Supply System
A JOINT OPERATING AGENCY

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May 21, 1981
G03-81-2004

Mr. Nicholas Lewis, Chairman
Energy Facilities Site Evaluation Council
MS-PY-11
Olympia, Washington 98504

Dear Mr. Lewis:

Subject: WPPSS Nuclear Projects Nos. 3 and 5
Revision of the Ecological Monitoring Program

Reference: Letter, P. K. Shen to N. Lewis, "Revision of the Ecological Monitoring Program", dated January 16, 1981

The above reference transmitted a suggested revision to the Ecological Monitoring Program for WNP-3/5 which included, in part:

- 1) That spawner surveys be performed on Hyatt Creek; and
- 2) That supplemental turbidity monitoring be performed per Envirosphere's Environmental Monitoring Program Procedure 1.3 (Enclosure 1).

The Council subsequently approved modification of the program, including these features, which we erroneously suggested. We request deletion and/or modification of these programs based upon the following:

- 1) High culverts have existed for years at the mouth of Hyatt Creek and constitute a complete blockage to migratory salmon spawners. Based on this information, the Supply System requests that spawner surveys on Hyatt Creek be deleted from the Ecological Monitoring Program.
- 2) As part of our day-to-day site inspection program, we perform a turbidity monitoring program (Enclosure 2), which heavily overlaps the presently required water quality monitoring program. We propose to delete the supplemental turbidity monitoring program and rely solely upon the proposed program to determine construction impacts. The proposed program lists more sampling than that required by EFSEC Resolutions. Under some conditions, these sample location and frequencies are appropriate; many other times they are not necessary to

Mr. Nicholas Lewis
Page 2
May 21, 1981
Revision of the Ecological
Monitoring Program

characterize the conditions. We request that we be given wide discretion to change the program as needed. We, of course, have discretion to take more turbidity samples to understand and document conditions; however, we need your concurrence to reduce sampling effort below tabulated levels (Enclosure 2). We propose to make program changes depending upon construction activity, slope stability, and weather conditions.

Basic differences between the programs are:

- a) The proposed program (Enclosure 2) samples actual construction discharges prior to river dilution;
- b) The proposed program does not include samples from South Elma Bridge, Fuller Bridge, and the Satsop River areas. Construction activities affecting water quality of the Chehalis River from South Elma Bridge to Fuller Bridge are minimal and, thus, deletion of these sample locations should not alter the intent or integrity of the program; and,
- c) In addition, further sampling of upper and lower Workman, Stein, and Purgatory Creeks is not recommended. The reasons for deleting these areas are there is no further construction activity affecting Workman Creek and turbidity values for Purgatory and Stein Creeks for the past two years have been less than 10 NTU.

Should you have any questions on this issue, please contact Mr. Van Hoff.

Very truly yours,


G. F. Bailey, Manager
Technical Division

sms
Enclosures (2)

cc: D Smithpeter, BPA

PROCEDURE 1.3: TASK SW-T: SUPPLEMENTAL TURBIDITY MONITORING PROGRAM1.3.1 Introduction

Supplemental turbidity monitoring is conducted in response to state and federal regulations governing the quality of surface runoff from the Project as set forth in the National Pollutant Discharge Elimination System (NPDES) Permit for the Project.

Supplemental turbidity monitoring occurs on any day that established threshold values for turbidity are exceeded in measured Project runoff or that precipitation recorded at the site exceeds 1.0 inches in a 24-hour period. Exact criteria for determining supplemental turbidity sampling are presented in Table 1.3-1.

Supplemental turbidity monitoring routinely includes turbidity measurements at locations shown in Table 1.3-1. However, other locations and parameters may also be monitored as required to meet Program commitments.

1.3.2 Equipment

Specific equipment lists are provided for each parameter analyzed in Procedures 1.5 to 1.16. General equipment used in Supplemental Turbidity Monitoring is as follows:

1.3.2.1 Field

1. Integrating sampler
2. Life jackets (1/person)
3. Anchor
4. Tool box w/tools
5. Sample bottles, 500-ml polyethylene (approximately 12)

TABLE 1.3-1
SUPPLEMENTAL TURBIDITY MONITORING CRITERIA

Precipitation-mandated Sampling

1. If 24-hr rainfall \geq 1.00 in.:

Sampling Stations

Chehalis River
South Elma Bridge
Fuller Bridge
Downstream Discharge
Intake Area
Stevens Creek
Below Barge Facility

Sample Analysis

Turbidity
1. All samples

Settleable Solids

1. River and stream samples if
turbidity > 75 NTU

Satsop River

Satsop River Mouth

Site Streams

Workman (lower)
Workman (upper)
Pugatory
Fuller
Hyatt
Elizabeth (lower)
Elizabeth (upper)
Stein

Turbidity-mandated Sampling (Streams only)

1. If turbidity > 75 NTU:

Sampling Stations

Re-sample station
Workman Cr. - Sample Stein and
Workman Cr. (upper)
Elizabeth Cr. - Sample upstream of
construction influence

Sample Analysis

Turbidity
Settleable solids if turbidity > 75 NTU

2. If turbidity > 250 NTU: Report to WPPSS or Ebasco Environmental engineer.

Sampling Stations

Re-sample station every 3 hr
until construction in affected
area ceases then sample twice
daily until turbidity < 75 NTU.

Sample Analysis

Turbidity
Settleable solids if turbidity > 75 NTU

11/21
except Hyatt

6. Sample bottles, 1-liter polyethylene or larger for settleable solids samples

1.3.3 Expendables

General expendables for Supplemental Turbidity Monitoring are as follows:

1. Water quality field data form (Section 1.3.5), No. 2 or softer lead pencil

1.3.4 Procedures

Detailed procedures for field and laboratory collection and analysis of Supplemental Turbidity samples are presented by parameter in Procedures 1.5 to 1.12.

1.3.4.1 Field

General field procedures followed during Weekly Water Quality Monitoring (Procedure 1.1) are included in the Supplemental Turbidity Monitoring Program.

1.3.4.2 Laboratory

All samples collected in the Supplemental Turbidity Monitoring Program shall be logged into the water quality sample logbook as stated in Section 1.1.4.2. One copy of the lab analysis form shall be sent to the WPPSS/EBASCO environmental engineer as soon as possible following completion of analyses. The site environmental engineer shall be notified immediately of any turbidity measurements in excess of 250 NTU or if any other problems are noted during field sampling. Data collected in the Supplemental Turbidity Monitoring Program shall be included in the weekly water quality summary report.

1.3.4.3 Data Analysis

Results obtained in the Turbidity Monitoring Program shall be stored in EnviroSphere's computer system and selectively compared with previous data during similar rainfall intensities.

1.3.5 Data Forms

Data forms utilized for supplemental turbidity sampling are the same as those used in the Weekly Water Quality Program (Figures 1.1-1, 1.1-2, and 1.1-5)

1.3.6 References

Methods for Supplemental Turbidity Monitoring are taken from the standard references listed for Weekly Water Quality Monitoring (Section 1.1.6).

KNP-3/5
WATER SAMPLING STATIONS
5/1/81

Sheet 1 of 4

ENCLOSURE

STATION LOCATION	REFERENCE PERMIT	SAMPLE TYPE	FREQUENCY OF SAMPLING, TIME PERIOD (a)	COMMENTS
Equalization Pond		pH, Turbidity	Twice Daily - 0830 hours and 2030 hours	Collect regardless of discharge. Note pond level.
Chemical Treatment Settling Pond (Discharging)	NPDES Permit	Suspended Solids Settleable Solids pH, Turbidity	Twice Daily - 0830 hours and 2030 hours charging; within 2 hours after discharge begins	Must be a minimum of twice daily when discharging; therefore if there is only a Day Shift, a second sample should be taken.
Chemical Treatment Settling Pond (No Discharge)	NPDES Permit	Turbidity, pH Settleable Solids	Twice Daily - 0830 hours and 2030 hours	Collect and analyze sample when water level permits.
W-1	Resolution No. 147	Turbidity, pH	Once Weekly - Tuesday, Wednesday or Thursday; after 1.0" rainfall	Plan to discontinue 12/31/81.
F-2	Resolution Nos. 147, 171, 172 & 180	Turbidity, pH Settleable Solids	Twice Daily - 0600 - 0800 hours and 1600 - 2000 hours	Sample more frequently when raining. Have pumps turned on when settleable solids exceed 0.2 ml/l.
F-3	Resolution Nos. 147, 171 & 172	Turbidity, pH Settleable Solids	Twice Daily - 0600 - 0800 hours and 1600 - 2000 hours	Sample more frequently when raining. Have pumps turned on when turbidity exceeds 75 NTU or there are settleable solids.
C-1	Resolution No. 180	Turbidity, pH Settleable Solids	Twice Daily - 0600 - 0800 hours and 1600 - 2000 hours	Pumps to run continuously until permanent drainage and vegetative cover established. When pond level is low and it would be dangerous to collect sample, only note time of visit and station status.

STATION LOCATION	REFERENCE PERMIT	SAMPLE TYPE	FREQUENCY OF SAMPLING, TIME PERIOD (a)	COMMENTS
UPRR	Resolution No. 180	Turbidity, pH Settleable Solids	Once Weekly - Saturday; after 1.0" rainfall	Sample twice daily when work is in progress.
Hyatt Creek Dam	Resolution Nos. 171, 183	Turbidity, pH Settleable Solids	Twice Daily - 0600 - 0800 hours and 1200 - 2000 hours	Sample more frequently when raining. Turn system on when turbidity at mouth of creek exceeds 50 NTU. Must be a minimum of twice daily sampling when discharging; therefore if there is only a Day Shift a second sample should be taken.
Hyatt Creek Mouth	Resolution Nos. 171, 183	Turbidity, pH Settleable Solids	Twice Daily - 0600 - 0800 hours and 1200 - 2000 hours	Sample more frequently when raining. Must be a minimum of twice daily when facility is discharging; therefore if there is only a Day Shift a second sample should be taken.
Elizabeth Upstream	Resolution Nos. 171, 183	Turbidity, pH Settleable Solids	Twice Daily - 0600 - 0800 hours and 1600 - 2000 hours	Continue sampling above Spoil Area "C" (i.e. above all possible construction impacts.) Once road and well construction are completed, sample once daily.
Elizabeth Mouth	Resolution Nos. 171, 183	Turbidity, pH Settleable Solids	Twice Daily - 0600 - 0800 hours and 1600 - 2000 hours	Once road and well construction are completed sample once daily. Note any work from Spoils "C", wetlands, Flink Farm.
Flink Upstream	Resolution Nos. 177, 183	Turbidity, pH Settleable Solids	Twice Daily - 0600 - 0800 hours and 1600 - 2000 hours	Once all construction on Flink Farm is completed, sample once daily.
Flink Downstream	Resolution Nos. 177, 183	Turbidity, pH Settleable Solids	Twice Daily - 0600 - 0800 hours and 1600 - 2000 hours	Once all construction on Flink Farm is completed, sample once daily.

STATION LOCATION	REFERENCE PERMIT	SAMPLE TYPE	FREQUENCY OF SAMPLING, TIME PERIOD (a)	COMMENTS
Barge Slip Upstream	Resolution No. 167	Turbidity, pH Settleable Solids	Once Weekly - Saturday; after 1.0" rainfall	Sample daily during earth-moving operations, dredging, desilting.
Barge Slip Downstream	Resolution No. 167	Turbidity, pH Settleable Solids	Once Weekly - Saturday; after 1.0" rainfall	Sample daily during earth-moving operations, dredging, desilting. Note tide level. Note potential fish traps.
Barge Slip Erosion Pond	Resolution Nos. 167, 183	Turbidity, pH Settleable Solids		Discontinue sampling until pump is replaced.
Fillo Upstream	Resolution No. 177	Turbidity, pH Settleable Solids	Once Weekly - Saturday; after 1.0" rainfall	Sampling will be increased to once daily when bank protection work restarts.
Fillo Downstream	Resolution No. 177	Turbidity, pH Settleable Solids	Once Weekly - Saturday; after 1.0" rainfall	Sampling will be increased to once daily when bank protection work restarts.
Rainfall		pH	0800	When rainfall amount permits measurement.
Batch Plant Discharge from Acid Treatment System		pH	Twice Daily - 0600 - 0800 hours and 1400 - 2000 hours	Sample more frequently as time permits, until system is working properly.
RAB Portal #3		pH, Turbidity	Once Weekly - Tuesday, Wednesday or Thursday	Plan to discontinue 12/31/81.
RAB Portal #5		pH, Turbidity	Once Weekly - Tuesday, Wednesday or Thursday	Plan to discontinue 12/31/81.
Stevens Creek Mouth	Resolution No. 183	pH, Turbidity, Settleable Solids	Twice Daily - 0600 - 0800 hours and 1600 - 2000 hours	Once road construction is completed, sample once daily.
Stevens Creek Upstream	Resolution No. 183	pH, Turbidity, Settleable Solids	Twice Daily - 0600 - 0800 hours and 1600 - 2000 hours	Once road construction is completed, sample once daily.

STATION LOCATION	REFERENCE PERMIT	SAMPLE TYPE	FREQUENCY OF SAMPLING, TIME PERIOD (a)	COMMENTS
Minkler Pond #1	Resolution No. 183	pH, Turbidity, Settleable Solids	Twice Daily - 0600 - 0800 hours and 1600 - 2000 hours	Once road construction is completed, sample once daily.
West Lukin Pond	Resolution No. 183	pH, Turbidity, Settleable Solids	Once Daily when there is enough water in the pond 0600 - 2000 hours.	
Construction Discharges	Resolution Nos. 171, 183	pH, Turbidity, Settleable Solids	When Discharging	Samples should be collected at point of discharge into area creeks and the Chehalis River. Clearly label sample location. (Example: Ranney discharge to Elizabeth Creek from ditch around spoil area, 200 ft. west of old bridge.)

Notes: a) Suggested time periods. If there is no Environmental Engineer working, sampling will not be performed.

b) Program changes will be made depending upon construction, slope stability and weather conditions.