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AUTH.NAME AUTHOR AFFILIATION
FIELDS,J.S. Pennsylvania Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
SWERDON,P. Pennsylvania, Commonwealth of,

SUBJECT: Provides addl info re NPDES Permit Application PA 0047325,in response to 841022 telcon questions.Info includes revised water use diagram as well as info updating permit application.

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NRC

Pennsylvania Power & Light Company
Two North Ninth Street • Allentown, PA 18101 • 215/770-5151

November 12, 1984

Mr. Paul Swerdon
Chief, Facilities Section
PA Department of Environmental Resources
90 East Union Street, Second Floor
Wilkes-Barre, PA 18701

SUSQUEHANNA STEAM ELECTRIC STATION
NPDES PERMIT APPLICATION SUPPLEMENTAL INFORMATION
PERMIT NO. PA 0047325
CCN 741326 FILE 012-3
PLE-6239

Dear Mr. Swerdon:

In response to questions posed by Mr. Dino Augustini of your staff during our phone conversation of October 22, 1984, the Pennsylvania Power and Light Company (PP&L) is submitting additional information regarding the NPDES Permit Application (No. PA 0047325) for the Susquehanna Steam Electric Station. This information includes a revised water use diagram as well as information updating our permit application. Responses to Mr. Augustini's questions are as follows:

1. Attached is a revised Water Use Diagram which reflects changes that have occurred in plant operation and wastewater discharges since the March, 1984 permit application. Temporary bypasses are shown on the diagram with dotted lines.

   A. As stated in the March, 1984 permit application, the clarifier underflow from the raw water treatment plant is being directed to the circulating water system (circwater), due to waste filter operational problems. Once this system becomes operational, this underflow will be directed to the waste filter where the sludge will be removed for disposal and the water portion returned to circwater.

   B. Backwashes from two filters, a gravity sand filter and a carbon filter used in the raw water treatment plant, combine with the temporary bypass of the waste filter prior to discharge to circwater. These backwashes were originally intended to be returned to the raw water clarifier. However, due to operational changes these backwashes are now being directed to circwater. Since these changes are not finalized, these filter backwashes may be routed back to the raw water clarifier in the future.

Cool

1/1

C. Wastewater from chemical waste treatment (neutralization basins) will not be directed to the waste filter as previously indicated. These basins are used to neutralize acids and caustics used in regenerating the demineralizers. Since this effluent contains little suspended solids, this waste stream will be discharged directly to circwater rather than placing an unnecessary hydraulic load on the sludge filter.

2. Mr. Augustini suggested the use of the combined outfall, 075, as a compliance monitoring point rather than monitoring and reporting each contributing outfall (072, 073, 074, 076, 077, 078) separately. As stated in the March, 1984 permit application, this combined outfall is primarily for storm water drainage. If this outfall was used as a compliance monitoring point, PP&L would then be concerned about being required to meet low volume waste limits (especially TSS of 30 mg/l) on storm water runoff. Additionally, since each sump is sampled prior to discharge, monitoring at the combined outfall would be redundant and, therefore, PP&L would prefer to continue using each individual sump as a discharge monitoring point.

3. As stated in the March, 1984 permit application, at the time of sampling at outfall 075 there were no discharges from any of the contributing outfalls. Therefore, the analyses for 075 represent primarily storm water and site runoff.

4. Auxiliary Boilers:

A. Two temporary waste streams previously directed to circwater and identified in the March, 1984 permit application (Supplement to Item II.B. - Further Description of Outfalls - pg. 6) have been removed. The Unit 2 temporary auxiliary boiler is no longer in service and has been dismantled. Therefore, blowdown from this boiler and backwash from a filter supplying water to demineralizers for this boiler no longer exist.

B. The Unit 1 auxiliary boiler, however, is a permanent structure and its blowdown discharges to the radwaste discharge line prior to discharge to the cooling tower blowdown line. This boiler is used to provide steam to radwaste evaporators (for radwaste volume reduction) and to preheat various plant systems prior to startup.

5. The deicing line shown on the water use diagram supplies warm water from circwater to a series of nozzles located just inside the intake structure. During cold weather operations, water is sprayed on the traveling bar screens and the intake channels to remove or prevent ice formations. This system represents no discharge to the river, since any water used for deicing purposes is drawn further into the intake structure and then pumped back to the cooling towers with the intake water.

6. The temporary butter tank listed under outfall 078 on Form 2C and under the Supplement to Item II.B. - Further Description of Outfalls - pg. 7, has been removed. Thus, there will be no discharges from this tank.

7. Monitoring at outfall 070, the S-2 sedimentation pond, can be accomplished by sampling at the sedimentation basin's overflow pipe.

8. Makeup to the spray pond normally occurs directly from the intake line as shown on the water use diagram. However, makeup to the spray pond can also occur from the cooling tower blowdown line.

I hope this information proves useful in the preparation of Susquehanna's NPDES Permit. If you have any questions regarding this information, please contact me at (215) 770-7889.

Sincerely,

Jerome S. Fields

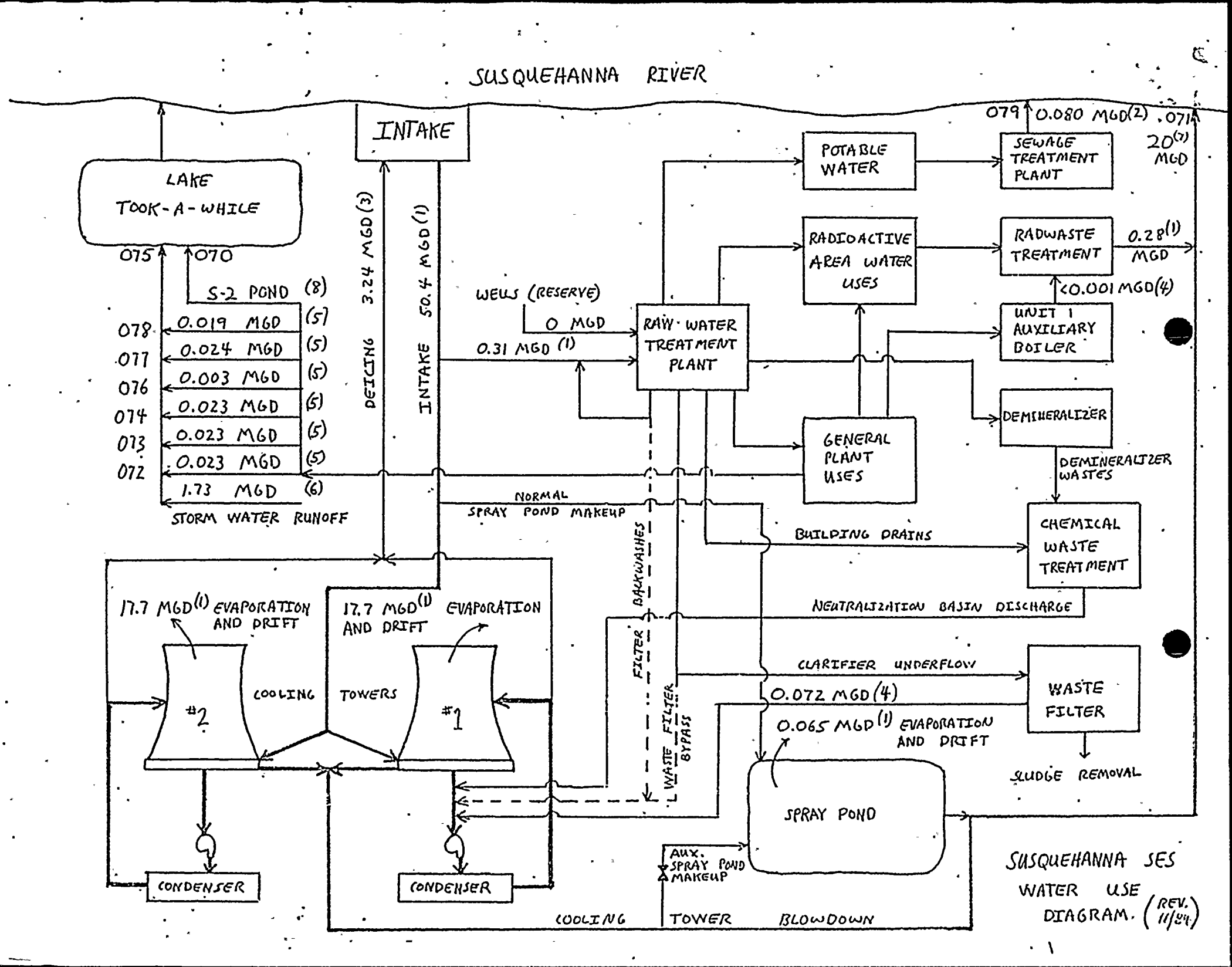
Jerome S. Fields
Sr. Environmental Scientist-Nuclear

DAS:dmk

das1tk002116a

Attachment

cc: A. Schwencer - NRC
D. Augustini - PA DER


SUSQUEHANNA RIVER
INTAKE
LAKE TOOK-A-WHILE
075
070
S-2 POND (8)
078 0.019 MGD (5)
077 0.024 MGD (5)
076 0.003 MGD (5)
074 0.023 MGD (5)
073 0.023 MGD (5)
072 0.023 MGD (5)
1.73 MGD (6)
STORM WATER RUNOFF
DEICING 3.24 MGD (3)
INTAKE 50.4 MGD (1)
WELLS (RESERVE)
0 MGD
0.31 MGD (1)
RAW WATER TREATMENT PLANT
POTABLE WATER
RADIOACTIVE AREA WATER USES
GENERAL PLANT USES
NORMAL SPRAY POND MAKEUP
BACKWASHES
FILTER WASTE BYPASS
079 0.080 MGD (2) .071
SEWAGE TREATMENT PLANT
20 (7) MGD
RADWASTE TREATMENT
0.28 (1) MGD
<0.001 MGD (4)
UNIT 1 AUXILIARY BOILER
DEMINERALIZER
DEMINERALIZER WASTES
BUILDING DRAINS
CHEMICAL WASTE TREATMENT
NEUTRALIZATION BASIN DISCHARGE
CLARIFIER UNDERFLOW
0.072 MGD (4)
WASTE FILTER
SLUDGE REMOVAL
17.7 MGD (1) EVAPORATION AND DRIFT
17.7 MGD (1) EVAPORATION AND DRIFT
COOLING TOWERS
#2
#1
CONDENSER
CONDENSER
0.065 MGD (1) EVAPORATION AND DRIFT
SPRAY POND
AUX. SPRAY POND MAKEUP
COOLING TOWER BLOWDOWN
SUSQUEHANNA SES
WATER USE DIAGRAM. (REV. 11/94)