

- GENERAL NOTES:**
- PROJECT PURPOSE: REMOVE SEDIMENT FROM INTAKE BASINS 2 AND 3 AND PERMANENTLY STOCKPILE IN NORTH SUBSTATION AREA.
 - TOPOGRAPHIC INFORMATION OF REHANDLING BASIN AS SHOWN FROM FIELD SURVEY BY PROTRACT ENGINEERING, INC., DECEMBER 1999 (BENCHMARK: MONUMENT #1 LOCATED AT BRIDGE ON NORTH SIDE ROCK RUN CREEK, ELEV= 114.88)
 - TOPOGRAPHIC INFORMATION OF NORTH SUBSTATION AREA AS SHOWN FROM FIELD SURVEY BY PROTRACT ENGINEERING, INC., MARCH 2001 (BENCHMARK: TOP OF CONCRETE FOOTER LOCATED AT BASE OF TOWER 11-4; ELEVATION = 100.00 ASSUMED).
 - LOCATION MAP INFORMATION FROM VARIOUS PLANS AS PROVIDED BY PEACH BOTTOM ATOMIC POWER STATION.
 - THE REMOVED SEDIMENT WILL BE DEPOSITED INTO ONE OR A COMBINATION OF THE FOLLOWING IN ORDER OF PREFERENCE:
 - CONCRETE BASINS OF THE DEMOLISHED D AND E COOLING TOWERS
 - NORTH SUBSTATION OPEN SPACE AREA.
 - DREDGING/REHANDLING BASIN BETWEEN A AND B COOLING TOWERS.
 - INTAKE BASINS, COOLING TOWERS, AND REHANDLING BASIN ARE LOCATED IN LANCASTER COUNTY. NORTH SUBSTATION IS LOCATED IN YORK COUNTY.
 - PROTRACT ENGINEERING, INC. DOES NOT GUARANTEE THE ACCURACY OF LOCATIONS FOR EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLAN, NOR DOES PROTRACT ENGINEERING, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES BEFORE THE START OF WORK.

SEDIMENT TO BE REMOVED FROM INTAKE BASINS

UNIT 2 INTAKE BASIN	UNIT 3 INTAKE BASIN
VOLUME: 7,500 CU YD	14,300 CU YD

TOTAL SEDIMENT = 21,800 CU YD

- NOTES:**
- SEDIMENT VOLUME AS PROVIDED BY NORMANDEAU ASSOCIATES, SPRING CITY, PA.
 - VOLUMES DETERMINED BY NORMANDEAU ASSOCIATES BASED ON 1998 SONAR SOUNDINGS FOR THE INTAKE BAYS PROVIDED BY PEACH BOTTOM ATOMIC POWER STATION.
 - SEDIMENT VOLUMES ARE CONSIDERED HIGHER THAN ACTUAL (CONSERVATIVE)
 - WATER CONTENT OF SEDIMENT NOT CONSIDERED DUE TO PROPOSED DEWATERING PROCESS.

GENERAL EROSION AND SEDIMENT CONTROL PROCEDURE

- EROSION AND SEDIMENTATION CONTROLS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE WITHIN THE TRIBUTARY AREAS OF THOSE CONTROLS. CONTROLS MUST BE CONSISTENT WITH STANDARDS AND SPECIFICATIONS OF THE EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL, MARCH, 2000.
- AS MUCH AS POSSIBLE, CONSTRUCTION SHALL BE FROM THE TOP OF THE SLOPE DOWN TO UTILIZE EXISTING VEGETATION AS EROSION AND SEDIMENT CONTROLS.
- ALL VEGETATED AREAS IN UNDISTURBED SECTIONS WILL REMAIN FOR EROSION PROTECTION. CONTRACTORS AND EQUIPMENT WILL BE RESTRAINED FROM VENTURING INTO ALL AREAS NOT BEING GRADED. DISTURBED AREAS WILL REMAIN EXPOSED FOR THE SHORTEST TIME POSSIBLE. NO WETLAND AREA MAY BE FILLED EXCEPT AS SHOWN ON PLANS AND APPROVED BY APPROPRIATE STATE AND FEDERAL AUTHORITIES.
- DUST WILL BE KEPT WITHIN TOLERABLE LIMITS BY EITHER THE USE OF CHEMICAL AGENTS, SUCH AS CALCIUM CHLORIDE, OR BY SPRINKLING THE AREAS CONTRIBUTING TO AIR-DUST POLLUTION WITH WATER.
- ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED AND WHICH WILL REMAIN EXPOSED FOR MORE THAN 20 DAYS MUST BE SEED AND MULCHED IMMEDIATELY. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MAY BE SEED AND MULCHED WITH A QUICK GROWING TEMPORARY SEEDING MIXTURE AND MULCH. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE SEED AND MULCHED WITH A PERMANENT SEED MIXTURE AND MULCH.
- DURING THE LIFE OF THE PROJECT, ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE MAINTAINED. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROLS. AFTER EVERY STORM EVENT AND EVERY WEEK EXAMINE ALL FILTER STRUCTURES AND CONTROL FACILITIES. DAMAGE TO FACILITIES SHALL BE REPAIRED AND ACCUMULATED SEDIMENT REMOVED TO MAINTAIN EFFECTIVENESS OF THE STRUCTURE. ANY SILT FENCE WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE REPLACED WITH ROCKS. FILTERS OUTLETS IMMEDIATELY. STONE FILTERS MUST BE REPLACED WHEN CLOGGED WITH SILT. REGRADE, RESEED, AND MULCH WASHED-OUT AREAS AS THEY OCCUR. PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENEWING MUST BE PERFORMED IMMEDIATELY.
- SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE OR STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE CONTRACTOR TO ELIMINATE ALL SUCH PROBLEMS.
- ANY COAGULANTS USED MUST BE APPROVED BY THE PADEP PRIOR TO USE.

RECOMMENDED CONSTRUCTION SCHEDULE

NOTE: THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL SEDIMENT THAT IS NOT APPROPRIATELY PLACED WITHIN THE DESIGNATED AREA(S) IS IMMEDIATELY CONTAINED AND COLLECTED.

NOTE: ANY COAGULANTS USED MUST BE APPROVED BY THE PADEP PRIOR TO USE.

- POSITION SEDIMENT REMOVAL EQUIPMENT WITHIN PROXIMITY OF THE APPROPRIATE INTAKE BASIN. THE EQUIPMENT SHALL BE LOCATED SO THAT ANY MISHANDLED WATER/ SEDIMENT WILL DRAIN BACK INTO THE RESPECTIVE INTAKE BASIN.
- THE SEDIMENT/WATER REMOVED FROM THE INTAKE BASIN(S) SHALL BE DEWATERED USING A GRIT CYCLONE AND A FILTER PRESS IN A SERIES OR JUST A FILTER PRESS. THE EFFLUENT OF THE FILTER PRESS WILL HAVE TOTAL SUSPENDED SOLIDS OF LESS THAN 30PPM.
- PLACE THE REMOVED "DEWATERED" SEDIMENT IN A CONTAINED UNIT FOR TRANSPORT ENSURING THAT NO SEDIMENT EXITS THE CONTAINED UNIT UNTIL DESIRED.
- DEPOSIT SEDIMENT INTO DESIGNATED AREA(S) AS SPECIFIED BELOW.

COOLING TOWER BASIN D AND E:

NOTE: THE DISCHARGE CULVERTS OF THE COOLING TOWERS CONTAIN ROCK GABIONS TO PREVENT SEDIMENTS FROM LEACHING INTO THE DISCHARGE CANAL.

- INSTALL GEOTEXTILE FABRIC ON THE INSIDE OF THE COOLING TOWER GABIONS TO PREVENT FINES FROM SEEPING INTO GABIONS. THE GEOTEXTILE FABRIC SHALL OVERLAP THE BOTTOM AND TOP OF THE GABION 12 INCHES (MINIMUM) (USE TERRATEX GS OR APPROVED EQUAL: WEBTEC, INC. CHARLOTTE, NC (800) 438-0027)
- PLACE SEDIMENT IN DESIGNATED AREAS ENSURING THAT SEDIMENT HEIGHT DOES NOT EXCEED SIX INCHES BELOW THE TOP OF THE EMBANKMENT.
- INSTALL STONE COVER. (SEE DETAIL)

NORTH SUBSTATION (SEE SHEET 2)

- INSTALL ROCK CONSTRUCTION ENTRANCE AS SHOWN ON PLAN.
- INSTALL FILTER FABRIC FENCE AS SHOWN ON PLAN.
- PLACE SEDIMENT IN DESIGNATED AREA ENSURING SIDE SLOPES DO NOT EXCEED A 3:1 SLOPE.
- SEED AND MULCH ALL DISTURBED AREAS.
- AFTER FINAL STABILIZATION (70% VEGETATIVE COVER), REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS MUST BE STABILIZED.

REHANDLING BASIN:

- PLACE SEDIMENT IN REHANDLING BASIN TO A MAXIMUM ELEVATION OF 1 FOOT BELOW THE INVERT OF THE BASIN OUTFALL PIPE.
- SEED/MULCH DISTURBED AREAS AS NECESSARY.

SEEDING AND MULCHING INFORMATION

- A. TEMPORARY SEEDING AND MULCHING**
- SITE PREPARATION**
APPLY 1 TON AGRICULTURAL GRADE LIME/AC. PLUS FERTILIZER AT 50-50-50/AC. AND WORK IN AS DEEPLY AS POSSIBLE.
 - SEEDING AND MULCHING MARCH 16 TO OCTOBER 15**
ANNUAL RYE GRASS AT 20 LB/AC. PLUS PERENNIAL RYE GRASS AT 20 LB/AC.
 - SEEDING AND MULCHING OCTOBER 15 TO MARCH 15 (NON-GERMINATING PERIOD)**
ANNUAL RYE GRASS AT 20 LB/AC. PLUS PERENNIAL RYE GRASS AT 20 LB/AC.
HAY OR STRAW MULCH AT 3 TONS/AC. ANCHOR MULCH WITH COMMERCIALY AVAILABLE NETTING OR ASPHALT EMULSION OR OUTBACK ASPHALT AT 150 GALLONS/AC.
- B. PERMANENT SEEDING - MARCH 15 TO JUNE 15 AND AUGUST 15 TO OCTOBER 15**
- SITE PREPARATION**
APPLY 3 TON AGRICULTURAL GRADE LIME/AC. PLUS FERTILIZER AT 100-200-200/AC. AND WORK IN AS DEEPLY AS POSSIBLE.
 - SEEDING AND MULCHING**
TALL FESCUE AT 60 LB/AC. PLUS REDTOP AT 3 LB/AC. OR PERENNIAL RYEGRASS AT 15 LB/AC.
HAY OR STRAW MULCH AT 3 TONS/AC.
- IN CHANNELS AND WHERE SLOPES EXCEED 25%, ANCHOR MULCH WITH COMMERCIALY AVAILABLE NETTING OR ASPHALT EMULSION OR OUTBACK ASPHALT AT 150 GALLONS/AC.
- C. ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED AND WHICH WILL REMAIN EXPOSED FOR MORE THAN 20 DAYS MUST BE SEED AND MULCHED IMMEDIATELY. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MAY BE SEED AND MULCHED WITH A QUICK GROWING TEMPORARY SEEDING MIXTURE AND MULCH. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE SEED AND MULCHED WITH A PERMANENT SEED MIXTURE AND MULCH.**
- D. CHANNELS AND STOCKPILES MUST BE SEED AND MULCHED IMMEDIATELY.**
- E. HAY OR STRAW MULCH MUST BE APPLIED AT RATES OF AT LEAST 3.0 TONS PER ACRE.**

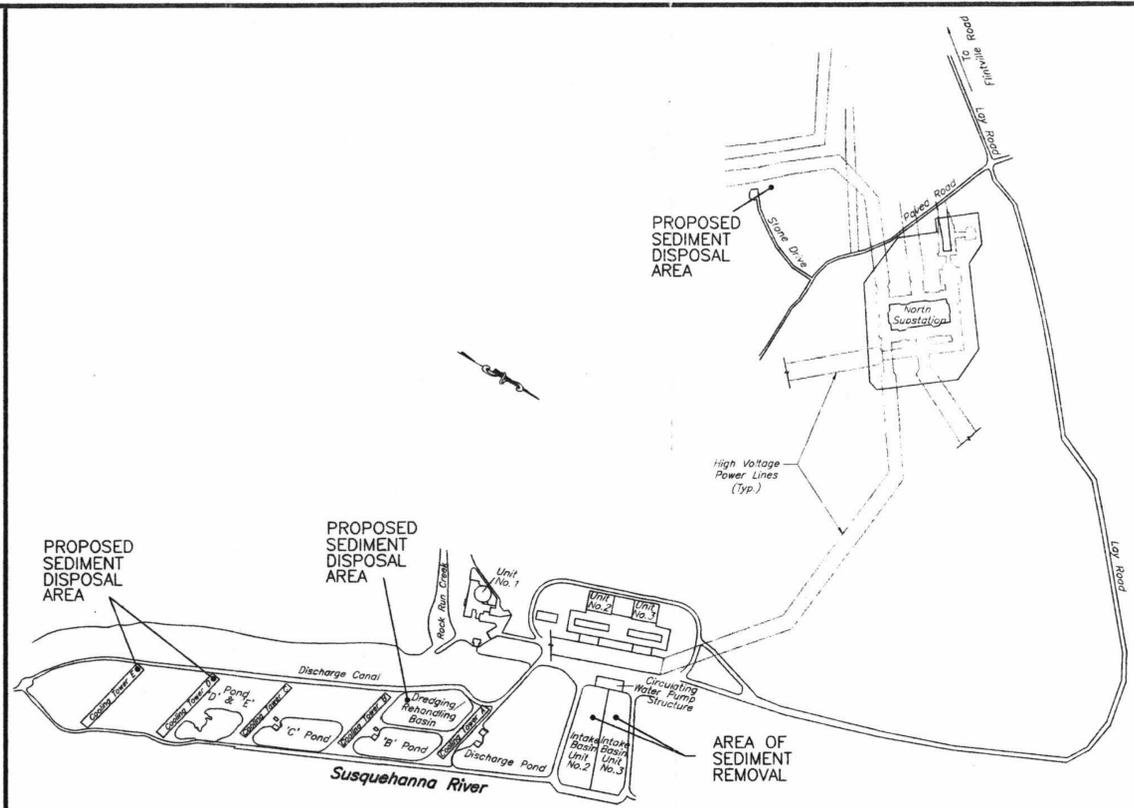
VOLUME CALCULATIONS OF COOLING TOWER BASINS D AND E

COOLING TOWER BASIN	BASIN LENGTH(ft.)	BASIN WIDTH(ft.)	BASIN DEPTH(ft.)	STORAGE AVAIL. (cu. ft.)
D	538	68	6.5	237,796 (8,807 cu yd)
E	538	68	6.5	237,796 (8,807 cu yd)

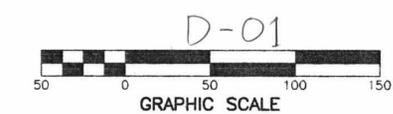
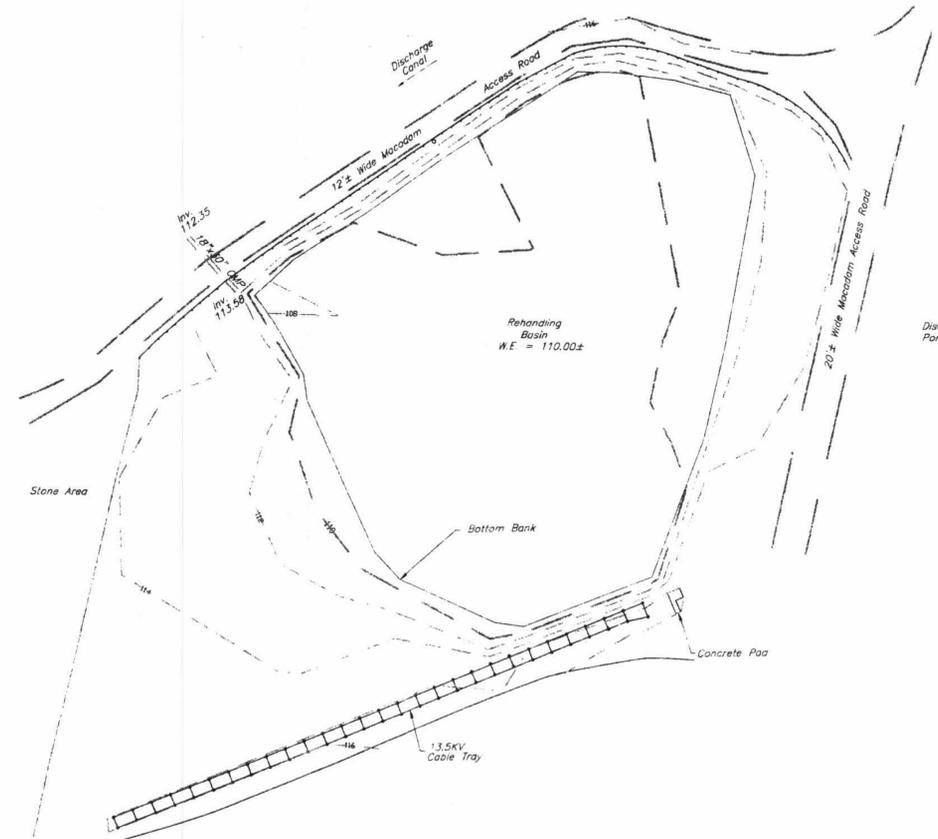
- NOTES:**
- COOLING TOWER BASIN DIMENSIONS BASED ON DATA PROVIDED BY PEACH BOTTOM ATOMIC POWER STATION.
 - VOLUME CALCULATIONS BASED ON REMOVAL OF COOLING TOWERS AND CONCRETE FOUNDATIONS.
 - BASIN DEPTHS MAY BE DEEPER THAN SHOWN. CALCULATIONS BASED ON SHALLOWEST DEPTH.

Monument
Elev. 114.88
(Benchmark)

NOTE: SEE SHEET 2 OF 2 FOR NORTH SUBSTATION SEDIMENT DISPOSAL INFORMATION.



LOCATION MAP / SCALE: 1" = 600'



NORTH ARROW

DRUMORE	LANCASTER	4-12-00	1" = 50'	1	2	1332	1	2	1332	1	2
EROSION AND SEDIMENT CONTROL PLAN OF UNITS 2 AND 3 INTAKE BASIN SEDIMENT REMOVAL PREPARED FOR PEACH BOTTOM ATOMIC POWER STATION											
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