PLANS FOR CONSTRUCTION SPILLWAY REPLACEMENT PROJECT ASH DISPOSAL AREA NO. 2 WORK PLAN 3 (JOF-090515-WP-3) JOHNSONVILLE FOSSIL PLANT NEW JOHNSONVILLE, HUMPHREYS COUNTY, TENNESSEE PREPARED FOR TENNESSEE VALLEY AUTHORITY PREPARED BY **INDEX OF SHEETS COVER SHEET GENERAL NOTES SPILLWAY & SIPHON PLAN** SIPHON PROFILE & DETAILS SPILLWAY PROFILE & DETAILS Stantec Consulting **OUTLET HEADWALL & DETAILS** Services Inc. STEEL SKIMMER DETAILS Stantec 1901 Nelson Miller Pky. STEEL SKIMMER DETAILS Louisville, Kentucky 40223-2177 Tel. 502.212.5000 Fax 502.212.5055 www.stantec.com For Supporting Design Calculations see FPGJ0FFESCDX00000020100005 ASH DISPOSAL AREA NO. 2 SPILLWAY REPLACEMENT PROJECT COVER SHEET WORK PLAN 3 (JOF-090515-WP-3) П R. PETTY S. BICKEL S. BICKEL S. BICKEL T. JOHNSON Stantec Consulting Services Inc. RECORD DRAWING JOHNSONVILLE FOSSIL PLANT 1901 Nelson Miller Pky Louisville, Kentucky TENNESSEE VALLEY AUTHORITY **GRAPHIC SCALE** 40223-2177 FOSSIL AND HYDRO ENGINEERING Tel. 502.212.5000 **VICINITY MAP** Fax 502.212.5055 **Stantec** 10W502-01 AUTOCAD R 2000 04/16/10 www.stantec.com PLOT FACTOR:XX STANTEC C.A.D. DRAWING DO NOT ALTER MANUALLY TASK COMPLETED BY:

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	GENERAL NOTES													
Α													A	
	GENERAL PROVISIONS	· •		SITEWORK			PRECAST SPILLWAY INLET ST	RUCTURES						
***************************************	area defined by the Valley Authority). o equipment, materials the contractor, and	confine all specific work of plans or approved by the access into the work area so and workforce shall be recontrolled as needed to post and slopes of the dikes	owner (Tennessee for delivery of eviewed daily by revent any	times to minimis deposition of s clearing, grubbin shall install silt	shall exercise every reasonable precaut ze soil erosion and prevent water pollu ediment into kentucky lake. Prior to g, and topsoil stripping activities, the fence as shown on the plans. Silt fer ery 7 days and within 24 hours of a p	ition by beginning contractor nce shall	Standard Type I TVA spillway structures shall conform to be cast as a single unit with	et structures shall be Shermandixie inlets or approved equal. Precast ASTM C—913. Each structure shall a suitable lifting lugs or holes t the structure can be lifted and against the sidewall of the		1. Structural A 36. (of ASTM		meet the requirements		
В	ash pond. If equipred the damage shall be and the methods for further damage. Expensely and the approval without the approval	damage to the crest and slopes of the dikes surrounding the ash pond. If equipment or material hauling causes damage, the damage shall be immediately repaired by the Contractor, and the methods for hauling shall be altered to prevent further damage. Except as shown on these plans the contractor shall avoid making excavations into the dike without the approval of the owner or the engineer (Stantec). During construction the contractor is responsible for			event that produces ½ inch or more of rainfall. If the fence fabric is undermined, torn, or in any way becomes ineffective it shall be immediately repaired or replaced. 2. Areas which will be excavated or used for embankment shall be cleared of trees, stumps, brush, projecting roots, weeds, logs			 adjacent structure. 2. The Contractor shall provide two (2) sets of shop drawings of inlet structures for the Engineer's review and approval. 3. Each structure shall be delivered on—site with stop log guides installed by casting integrally in the structure. The installation 			2. All structural steel shall be coated with an epoxy zinc rich primer and coal tar epoxy paint (two coats). Application of coatings and preparation of steel shall be in accordance with the coating manufacturer's specifications.			
	precautions required existing spillway sys operation of the asl 2. The Contractor shall	to protect the integrity o tem and appurtenances ne	f the dikes, eded for the safe r to determine	projecting roots, be cut to within grubbed to a de other organic m to a depth of 4	uding obstructions. All trees, stumps, weeds, logs, and protruding obstruct 3 inches of existing ground. The are epth of 6 inches to remove grass, rootaterial. If encountered, topsoil shall be inches. All cleared and grubbed mather the site and disposed of at an appropriate the site and disposed of at an appropriate content of the site and disposed of at an appropriate content of the site and disposed of at an appropriate content of the site and disposed of a stan appropriate content of the site and disposed of a stan appropriate content of the site and disposed of a stan appropriate content of the site and disposed of a stan appropriate content of the site and disposed of a stan appropriate content of the site and appropriate content of th	tions shall ea shall be ts and be stripped terial shall	will have been checked to in aligned and the stop logs of without binding. 4. Each structure shall be delive	ered with a 5%" thick steel plate wall of the structure. The installation is the structure. The plate						
С	3. Whenever reference Transportation (TDO Concrete Institute American Society of	on lay down activity. is made to Tennessee Dep T) Standard Specifications, (ACI), American Water Work Testing and Materials (AS	American ks Association TM) and other	regulations. Top the site to be u 3. Prior to placing dike, the bottom	d in accordance with applicable local in accordance with applicable local in a solution of the state of the s	ocation on e of the level	17 HDPE outlet pipe using a iron flange back—up ring with fabricated using ASTM A—36 same as structural steel for			Non-Woven —		Together	C	
•	version in its entired 4. The Contractor shall	secure the latest edition performing work which is p	of TDOT Standard	which embankme destroyed by ste prevent wedging 4. Excavated mater	the embankment. Sloping surfaces ent or backfill material will be placed supping or serrating, to enhance bonding action during compaction. Tials from offsite borrow sources that a compact material against either the out	shall be ng and will be	galvanized steel expanstion—tinstalled into holes drilled after size shall be shall be 5%" dia shall be 6 inches. Drill holes	ne plans, anchor bolts shall be type concrete anchors that are ter the unit is cast. The minimum meter and minimum embedment is shall be thoroughly cleaned prior anchors shall be installed per		Geotextile Fabric		Wooden Stakes, 2" Min. (Typ.)		
D	Departr Suite 7 505 De Nashvill	of Tennessee ment of Transportation 700, James K Polk Building eaderick Street e, Tennessee 37243—0345 cal survey control points fo		of the dike, or consist primarily Engineer, are su permitted, embacl, cl—ml, cl—ch, material shall be	to backfill excavations within the dike, of clay materials that, in the opinion itable for dam construction. Unless on the naterials shall exhibit a classiful, or chain accordance with ASTM D-24 free of organic matter, topsoil, rubbit and rock pieces greater than 3 inches	shall of the otherwise ification of 487. the ish, debris,	 Cast—In—Place reinforced cor applicable subsections of section the TDOT Standard Specificat 	tion 604 — concrete structures of ions and ACI 305 — hot weather				14 Ga., Max. 6" Ope	enings D	
	staking shall be the Contractor shall be necessary for layout 6. Acceptable construc elevations, and grad	responsibility of the owner responsible for all surveying and construction of the parties tion tolerances from plan ces shall be as follows:	r. The g and staking project. dimensions,	(maximum dimer content that is 5. Embankment ma lifts that do not Each lift shall be	nsion) in size, and shall be at a moist suitable for acceptable compaction. Iterials shall be placed and spread in the exceed 8 inches in thickness (loose in thoroughly compacted to achieve a	ture horizontal measure). minimum	, ,			Flow	6	Min. 6" Min		
	slopes: ± 0.25 Riprap: final greet Final grade top Precast concre	d final grades for earth sur feet ade ± 0.5 feet, thickness of dike: zero to + 0.25 te spillway structures: ± 0 n ½" of same elevation.	zero to + 0.5 feet .10 feet, and all	ASTM D-698. Twithin a range of content as determined by the Engineer,	of its maximum dry density as determ The moisture content during compaction of +2 to -3 percent of the optimum or mined by ASTM D-698. field compaction are achieved.	on shall be moisture ction tests,	 Exposed edges shall be chan surfaces shall receive a Class Exposed, unformed (horizonto float finish, surfaces. STOP LOGS 		,		work Activity Shall Be Locate	•	.DWG	
E	measurements • Stop Logs: all than ½" variation • Pipes and appu	within ½" of plan dimension within ½" of same elevation (levelness) across a sindrent rtenances: ±0.10 feet of p	ns. on and no more gle stop log. olan elevation.	the top of spillw hand—directed c compactor/ramn	placed adjacent to and less than 3 fe vay pipes shall be compacted using ompactors ("jumping jack" type ner). Int surfaces shall be finished to a relat		1. Stop Logs and guide frame s	ontractor will be required to furnish frp) stop logs designed to	h	3. Attach F Materials	ilter Fabric To Wooden Stake Approved By The Engineer.	Slopes On The Contour Line. es With Staples, Hogrings Or Other The Downhill Side Of Filter Fabric.	_RECORD\10W502-02-R1	
	be made without pri Contractor shall kee elevation of any inst any deviations in ins At completion of the	the plans or approved shop for approval from the Engir p a record of all deviations tallation from that shown of stallations from approved s e project a plan set of fin epared by the Engineer to	neer. The s in location or on the plans, and hop drawings. al record	smooth and com seeding, mulchin performed in acc sections 801 and	npact surface. Seedbed preparation, fing, and protecting earth surfaces shall cordance with the applicable subsection of the TDOT Standard Specificat sixture shall be used.	ertilizing, Il be ns of	during the warranty period (2 3. The Stop Log supplier shall p	provide two sets of shop drawings ion. the Contractor shall be		Prevent S Soil. 6. Join Silt	Sediment From Escaping Und	Fabric In A 6"x6" Trench (To ler The Fence) And Back Fill With and Stakes Together To Create An	WAY_REPLACEMENT\REVI	
F	owner has a permar constructed. The C	nent record of the project ontractor shall cooperate f the Final Record Drawings.	as it was	surfaced across compacted mine section 303 of t 9. Riprap and ground accordance with	ruction area, the final top of dike shathe entire crest width using a 6—inch ral aggregate base (Type B) in accord the TDOT Standard Specifications. ted riprap shall be machined riprap in section 709 of the TDOT Standard	layer of ance with	HDPE PIPE1. High Density Polyethylene Pip the requirements of ASTM D polyethylene plastic pipe and	•			1 DETAIL - SI 2 SCALE: N.T.S.	LT FENCE SILT_FENCE.DWG	R: PETTY, RICHARD EOTECHNICAL\DRAWING\SPILL	
				Specifications. C	lass B shall be used.		ASTM D 3261 "Standard Spec	ints which meet the requirements iffication for butt heat fusion ngs for polyethylene plastic pipe					OT DATE: 04/16/2010 USE	
G										For Supporting D	Design Calculations see RO 1000020100005 REV. NO.	O4/16/10 JK RP SHB SHB SHB CORD DRAWING O4/16/10 JK RP SHB SHB SHB JED FOR CONSTRUCTION DATE DSGN DRWN CHKD SUPV RW	B SHB TJ DISCIPLINE INTERFACE	
								Section or Detail No. Sheet Where Shown		HILL SO OF STANDERS OF STANDER	N H. B/C	ARD SH DISPOSAL AREA NO. 2 PILLWAY REPLACEME SENERAL NOTES		
Н								REFERENCE KEY RECORD DI	RAWING	Styling Styling	Stantec Consulting Services Inc. 1901 Nelson Miller Pky. Louisville, Kentucky 40223-2177 Tel. 502.212.5000	ORK PLAN 3 (JOF—) NED BY: J. KOPP R. PETTY S. BICKEL S. BICKEL JOHNSONVILLE FOS TENNESSEE VALLEY FOSSIL AND HYDRO ENG	REVIEWED BY: APPROVED BY: ISSUED BY: S. BICKEL S. BICKEL T. JOHNSON SIL PLANT AUTHORITY	
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