

PER Num = 114216 [Exact]  
 DivisionPER Type  
 Problem Work Site  
 PER Status  
 Responsible Organization Code  
 Responsible Org Hierarchy  
 PER Level  
 MRC Initial Review Due Date

**TVA Corrective Action Program  
 PER Detail Report  
 by PER Number**

CAP Review Due Date  
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PER	PER Title	Status Entry Date	Current Status	Resp User
114216	KIF-Dredge Cell Dike Leakage	11/20/2007	Archived	

**Identification Information**

**Original PER Number:** NONE      **Work Site:** Fossil Engineering Svs      **Initiating Org:** DES Design Engineering Svs  
**Date of Occurrence:** 11/01/2006      **Division:** F - FPG      **Initiator:** PURKEY, RONALD  
**Supervisor Reviewer:** KAMMEYER, JOHN      **Initiation Date:** 11/06/2006 11:04:17 AM

**Problem Description:**

The dredge cell dike along Swan Pond Road is leaking ash just above the riprap-reinforced ditch. This transport of ash, if not arrested, will result in bank erosion and a slip-circle type bank failure.

**Probable Reason/Solution:**

Potential Failure reasons/solutions:

- The filter between the 12 inch thick soil cover and the drainage encasement by the road is discontinuous.
- A past cell of leakage (probably from cell 1 above) is so active that the volume and velocity of the leakage overcomes the filter system we have.

**Immediate/Interim Actions:** 1. Set up 2 hour round the clock watches until 11/06/2006.

- Made modifications at 2 places near the ditch where the filter fabric was found to be discontinuous.

**Potential Reactivity Issue:** ?  
**Potentially Affects Operability:** ?  
**Potentially Reportable:** ?  
**Potential Environmental Issue:** Yes  
**Corrected Immediately:** No  
**Potential Degraded / Non-Conf Issue:** ?

**Additional Document:**

**Identification Method:** Line

**Affected... Unit(s):** 1. N/A      **System(s):** 1. FESN/A NONE      **Equipment:** NONE      **Work Order(s):** NONE      **Document(s):** NONE

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**OPS Information**

**Affects Operability:** ? **Other TVA Ops Notification:** No  
**Operability Actions:** **Work Site(s):**  
**Reportable:** ? NONE  
**Reportable Basis:**  
**Functional Eval Needed:** ?

**OPS Information**

**Reactivity Management Information**

**Reactivity Mgmt Issue:** ?  
**Reactivity Mgmt Issue Desc:**

**Reactivity Management Information**

**MRC Information**

<b>Level:</b> B	<b>MRC CAP Review Req.:</b> Yes
<b>Category:</b> People	<b>Extent of Condition:</b> Yes
<b>Customer Group:</b>	<b>As Found:</b> No
<b>Responsible Org.:</b> DESCIV Civil & Structural Eng	<b>Reportable as OE:</b> ?
<b>Responsible Empl.:</b> PURKEY, RONALD	<b>MRC Initial Review Due Date:</b> 11/13/2006
<b>Analysis Type:</b> Apparent	<b>CAP Review Due Date:</b> 01/31/2007
<b>Work Milestone Code:</b>	
<b>Non PER Justification:</b>	
<b>MRC Directions:</b> Take credit for temporarily stopping stacking.	
<b>OE Requirement:</b>	

**MRC Information**

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**Resp Org CAP Information**

<b>PER Completion Due Date:</b> 02/09/2007	<b>Repeat Event/Cond.:</b> No
<b>Causing Organization:</b>	<b>ASME:</b> ?
<b>Event Class:</b> Other	<b>Generic Review Req/Info Only:</b> No
<b>Report Number:</b>	<b>Work Site(s):</b> NONE
<b>Cause Description:</b> After the seep was discovered, there was a set of borings performed. The borings revealed a shale layer below the seep area which directs seepage up through the embankment.	
<b>Similar Previous Event:</b> no	
<b>Extent of Condition:</b> Limited to kingston and to 500 feet length along Swan Pond Road.	

**CAP Development Narrative:**

**Recurrence Control:**

**Hardware Disposition:**

**Hardware Disposition Just.:**

**Cause Code(s):**

M.1.G Wrong operating or environmental parameters.

**Resp Org CAP Information**

**Trend Codes**

<b>Program Codes:</b>	1. WD Waste Disposal
<b>INPO Codes:</b>	NONE
<b>Human Performance Error Code:</b>	Knowledge Based
<b>Executive Mangement Codes:</b>	NONE
<b>Human Errors or Inappropriate Action Codes:</b>	1. Task Too Complex
<b>Organization &amp; Program Codes:</b>	1. Not Assigned
<b>Human Performance Process Code:</b>	NONE
<b>NRC Codes:</b>	NONE
<b>Impact Code:</b>	

**Trend Codes**

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**PER Actions (Details attached)**

Action Num	Description	Type	Generated From	Assigned to Org.	Status
114216-001			MRC	.NULL.	Cancelled
114216-002	I	Action	CAP	DESCIVCivil & Structural Eng	Archived
114216-003	I	Action	CAP	DESCIVCivil & Structural Eng	Archived

**PER Actions (Details attached)**

**PER Attachments**

Filename	Size
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**PER Attachments**

**PER History**

Status	Status Entry Date	Status Completion Date	Responsible User	Owner
Initiate PER	11/06/2006	11/06/2006	PURKEY, RONALD	PURKEY, RONALD
Supv PER Review	11/06/2006	11/07/2006	KAMMEYER, JOHN	TANIS, ROBERT
MRC Initial PER Reww	11/07/2006	11/09/2006	PETERSON, LEONARD	PETERSON, LEONARD
Resp Org Plan CAP	11/09/2006	02/22/2007	PURKEY, RONALD	PURKEY, RONALD
Supv CAP Review	02/22/2007	02/26/2007	KAMMEYER, JOHN	KAMMEYER, JOHN
MRC CAP Review	02/26/2007	04/02/2007	PETERSON, LEONARD	PETERSON, LEONARD
Implement CAP	04/02/2007	11/20/2007	PETTY, HAROLD	PURKEY, RONALD
RespOrg Mgr Close CAP	11/20/2007	11/20/2007	PETERSON, LEONARD	KAMMEYER, JOHN
Archived	11/20/2007			KAMMEYER, JOHN

**Reroute Notes:**

**PER History**

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**Action 114216-001 Details**

**Action Type:**

**Generated From:** MRC

**Action Due Date:**

**Accepted by Org:**

**Assigned to Org:**

**Assigned to Empl:**

**Description:**

**Action Taken:**

**Cancellation Reason:** Request was put on the MRC comments.

**Action 114216-001 Details**

**Action 114216-001 Extensions**

Extension Num	Reason for Extension	Proposed Due Date	Status
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**Action 114216-001 Extensions**

**Action 114216-001**

Filename	Size
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**Action 114216-001**

**Action 114216-001 History**

Status	Status Entry Date	Status Completion Date	Responsible User	Owner
MRC Request	11/09/2006	11/09/2006	PETERSON, LEONARD	PETERSON, LEONARD
Cancelled	11/09/2006			PETERSON, LEONARD

**Reroute Notes:**

**Action 114216-001 History**

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**Action 114216-002 Details**

**Action Type:** Action  
**Generated From:** CAP  
**Action Due Date:** 02/02/2007  
**Accepted by Org:** DESCIV Civil & Structural Eng  
**Assigned to Org:** DESCIV Civil & Structural Eng  
**Assigned to Empl:** PURKEY, RONALD  
**Description:** Install wells in the area of the seeps. Monitor wells to determine the extend of the high subsurface hydrostatic pressures. In areas of higher than expected pressures, install a 12 foot long drainage layer with filter cloth around the crushed stone. The drainage layer would be adjacent to the existing ditch and extend 12 feet over into the ash stack. This will draw down the pferatic surface to the ditch level.  
**Action Taken:** Wells have ben installed to monitor groundwater  
Criteria establnished  
Dredging has resumed

**Action 114216-002 Details**

**Action 114216-002 Extensions**

Extension Num	Reason for Extension	Proposed Due Date	Status
<b>Action 114216-002 Extensions</b>			

**Action 114216-002**

Filename	Size
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**Action 114216-002**

**Action 114216-002 History**

Status	Status Entry Date	Status Completion Date	Responsible User	Owner
Request	01/25/2007	01/25/2007	PURKEY, RONALD	PURKEY, RONALD
Accept Action	01/25/2007	01/25/2007	PURKEY, RONALD	PURKEY, RONALD
Complete	01/25/2007	05/18/2007	PURKEY, RONALD	PURKEY, RONALD
Archived	05/18/2007			PURKEY, RONALD

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Reroute Notes:

**Action 114216-002 History**

**Action 114216-003 Details**

**Action Type:** Action  
**Generated From:** CAP  
**Action Due Date:** 02/09/2007  
**Accepted by Org:** DESCIV Civil & Structural Eng  
**Assigned to Org:** DESCIV Civil & Structural Eng  
**Assigned to Empl:** PURKEY, RONALD  
**Description:** Install monitoring wells to insure when and if future hydrostatic pressures build up, they will be detected in time to remediate them before there is a blow-out of the toe of the dike. Monitor the wells.  
**Action Taken:** Wells have been installed to monitor ground water elevation. Criteria established for monitoring. Dredging has resumed.

**Action 114216-003 Details**

**Action 114216-003 Extensions**

Extension Num	Reason for Extension	Proposed Due Date	Status
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**Action 114216-003 Extensions**

**Action 114216-003**

Filename	Size
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**Action 114216-003**

**Action 114216-003 History**

Status	Status Entry Date	Status Completion Date	Responsible User	Owner
Request	01/25/2007	01/25/2007	PURKEY, RONALD	PURKEY, RONALD
Accept Action	01/25/2007	01/25/2007	PURKEY, RONALD	PURKEY, RONALD
Complete	01/25/2007	05/18/2007	PURKEY, RONALD	PURKEY, RONALD
Archived	05/18/2007			PURKEY, RONALD

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**Reroute Notes:**

**Action 114216-003 History**

**Environmental Information**

Environ Review Number: 1149  
 Source of PER:  
 Notice of Violation: ?  
 Is a Repeat: ?  
 Regulatory or NonConforming:  
 Findings or Observations:  
 Regulatory Areas: NONE  
 Noncompliance with EMS Processes: NONE  
 Cancellation Reason: It is not Regulatory or Nonconforming at this time.

**Environmental Information**

**Environmental History**

Status	Status Entry Date	Status Completion Date	Responsible User	Owner
Perform Environ Review	11/07/2006	11/09/2006	PETERSON, LEONARD	PETERSON, LEONARD
Cancelled	11/09/2006			PETERSON, LEONARD

**Environmental History**



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**Functional Eval Information**

Functional Eval Number:  
 Due Date:  
 Functional Evaluation Title:  
 Functionality Maintained: ?  
 Degraded/non-Conf Condition: ?  
 List Basis:  
 Immed/Comp Measures: ?  
 Action/Measures:

**Functional Eval Information**

**Functional Eval Attachments**

Filename	Size
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**Functional Eval Attachments**

**Functional Eval History**

Status	Status Entry Date	Status Completion Date	Responsible User	Owner
Reroute Notes:				

**Functional Eval History**

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**Effectiveness Review Information**

Eff Review Number:  
 Due Date:  
 Effectiveness Review Title:  
 Training Effectiveness:  
 Design Change Effectiveness:  
 Overall Effectiveness:  
 Self Assessment Performed: ?  
 Self Assessment Comment:  
 Similar Events:  
 Repeat Events:  
 OE Review: ?  
 OE Comments:  
 Corrective Action Problems:  
 Action Complete as Intended: ?  
 Adequate Elapsed Time: ?  
 Is PER Required?: ?  
 New PER Number:

**Effectiveness Review Information**

**Effectiveness Review History**

Status	Status Entry Date	Status Completion Date	Responsible User	Owner
Reroute Notes:				

**Effectiveness Review History**