



## LAKE ENGINEERING CO.

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July 24, 2017

U S Nuclear Regulatory Commission  
Attn: Document Control Room  
Washington, DC 20555-0001

Subject: Potentially Degraded Snubber SF1154 Hydraulic Fluid  
Second Interim Notification per 10 CFR Part 21

This letter is a follow up to our initial notification letter dated May 1, 2017 pertaining to the above subject.

### Fluid Evaluation by Lake Engineering Company (LEC)

In our previous evaluations, evidence of white semisolid material was identified only in containers of fluid that had not been filtered by LEC prior to shipment. At that time it was postulated that our filtration process may have eliminated any existing semisolid material and precluded the existence of such material thereafter. Subsequent to our initial report dated May 1, 2017, evidence of the white semisolid material was identified in samples of fluid that had, in fact, been filtered prior to shipment. It was therefore concluded that, although filtration will remove preexisting semisolid material it will not preclude its generation thereafter.

### Evaluation by Momentive Performance Materials

The white semisolid material observed in Batch 14ELVS145 has been identified as a phenyl cyclic precipitate. Phenyl cyclic is a typical byproduct that normally exists in solution in all dimethyl diphenyl polysiloxane. The propensity for precipitation may be associated with the overall level of cyclics in the fluid. Efforts are ongoing to finalize a purification process that will significantly reduce the level of phenyl cyclics in future batches.

### U S Nuclear Plants to Which Fluid from Batch 14ELVS145 Was Shipped by LEC

The following table reflects the status of US plants to which SF1154 fluid from Batch 14ELVS145 was shipped by Lake Engineering Company (LEC):

IE19  
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PLANT	Status Re: Batch 14ELVS145 Fluid	COMMENTS
Millstone	Installed snubbers with Batch 14ELVS145	Evaluation ongoing
Nine Mile Point	Fluid not used	No substantial safety hazards
Duane Arnold	Fluid not used	No substantial safety hazards
Monticello	Fluid not used	No substantial safety hazards
Pilgrim	Fluid not used	No substantial safety hazards
Three Mile Island	Installed snubbers with Batch 14ELVS145	Evaluation ongoing
Grand Gulf	Installed snubbers with Batch 14ELVS145	Evaluation ongoing
Peach Bottom	Installed snubbers with Batch 14ELVS145	Evaluation ongoing

Further Action by Lake Engineering Company

Lake Engineering Company shall continue in its evaluation to determine whether the subject anomalies represent defects which could create a substantial safety hazard. Determination in this regard shall continue to involve interaction between Lake Engineering Company and plants listed above that have installed snubbers with Batch 14ELVS145 fluid.

Our goal is to complete the evaluation by October 31, 2017 at which time a final determination will have been made as to whether a substantial safety hazard exists. If additional time is required for the above determination, an interim report shall be submitted that shall include an updated completion date.

If there are any questions or if additional information is required, please contact the writer by mail or by phone using the contact information provided above or by email at [dbrown@lakeengineeringri.com](mailto:dbrown@lakeengineeringri.com).

Very truly yours,

LAKE ENGINEERING COMPANY



D. P. Brown, P.E.  
President

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cc: P. Guay - QA Mgr.