# FGE Portland General Electric Company

Charles Goodwin, Jr. Assistant Vice President



June 9, 1980

Trojan Nuclear Plant Docket 50-344 License NPF-1

Mr. R. H. Engelken, Director U. S. Nuclear Regulatory Commission Region V Suite 202, Walnut Creek Plaza 1990 N. California Blvd. Walnut Creek, CA 94596

Dear Mr. Engelken:

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As requested in IE Bulletin 80-05 dated March 10, 1980, a review of the vacuum protection measures for all systems with the potential to contain primary water has been completed for the Trojan Nuclear Plant. The review, which included the systems listed in Attachment A, confirmed the adequacy of existing measures to effectively ensure vacuum protection. A listing of the evaluated tanks, including specific vacuum protection measures associated with each tank, is presented in Attachment B.

All tanks with active vacuum protection devices (i.e., regulators) have a backup vacuum protection measure. This measure is either the capability to withstand a full vacuum, a redundant active device or a backup passive means. The CVCS holdup tanks are provided with two active means of assuring vacuum protection. These measures include cover gas from a designated waste gas decay tank and a backup supply from the nitrogen storage facility. PGE considers these measures sufficient to assure vacuum protection. Installation of vacuum breakers on the holdup tanks is not considered advisable due to the potential for creation of explosive mixtures of oxygen and hydrogen.

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Tanks with passive vacuum protection (i.e., from the vent collection header) will be provided with a locking device and an engraved warning on all isolation valves to assure against inadvertent closure. This modification will be completed by June 1, 1981.

This information completes the PGE input to IE Bulletin 80-05.

Sincerely,

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C. Goodwin, Jr. Assistant Vice President Thermal Plant Operation and Maintenance

CG/JLT/4sa3B19 Attachments

c: Mr. Lynn Frank, Director State of Oregon Department of Energy

> Director Office of Inspection and Enforcement U. S. Nuclear Regulatory Commission

#### ATTACHMENT A

# SYSTEMS INCLUDED IN IE BULLETIN 80-05 REVIEW

Reactor Coolant System Safety Injection System Chemical and Volume Control System Radioactive Gaseous Waste System Clean Radioactive Waste Treatment System Residual Heat Removal System Containment Spray System

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### ATTACHMENT B

#### TANK VACUUM PROTECTION MEASURES

Equipment Number	Service	Capacity	Full Vacuum Capability	Vent Collection Header (Passive)	Loop Seal (Passive)	Gas Collection Header (Active)
T202	Pressurizer	1080 ft <sup>3</sup> water 720 ft <sup>3</sup> steam	X			
т203	Pressurizer Relief Tank	1800 ft <sup>3</sup>	Х			Х
T210A	CVCS Mixed Bed Demineralizer	43 ft <sup>3</sup>	Х			
Т210В	CVCS Mixed Bed Demineralizer	43 ft <sup>3</sup>	Х			
T211	CVCS Cation Bed Demineralizer	20 ft <sup>3</sup>	Х			
T213	Volume Control Tank	400 ft <sup>3</sup>	Х			Х
T216A	Boric Acid Tank	25,510 gal.		X	Х	
T216B	Boric Acid Tank	25,510 gal.		X	Х	
T218A	CVCS Holdup Tank	8,500 ft <sup>3</sup>				Х
Т218в	CVCS Holdup Tank	8,500 ft <sup>3</sup>				Х
T218C	CVCS Holdup Tank	8,500 ft <sup>3</sup>				Х
T219A	Evaporator Feed Ion Exchanger	30 ft <sup>3</sup>	Х			

#### ATTACHMENT B

Equipment Number	Service	Capacity	Full Vacuum <u>Capability</u>	Vent Collection Header (Passive)	Loop Seal <u>(Passive)</u>	Gas Collection Header (Active)
Т219В	Evaporator Feed Ion Exchanger	30 ft <sup>3</sup> resin Vol. 20 ft <sup>3</sup>	Х			
T219C	Evaporator Feed Ion Exchanger	30 ft <sup>3</sup> resin Vol. 20 ft <sup>3</sup>	х			
T220A	Boric Acid Evaporator Condensate Demineralizer	30 ft <sup>3</sup> resin Vol. 20 ft <sup>3</sup>	Х			
Т220В	Boric Acid Evaporator Condensate Demineralizer	30 ft <sup>3</sup> resin Vol. 20 ft <sup>3</sup>	х			
T'221A	CVCS Monitor Tank	21,600 gal.		Х		
Т221В	CVCS Monitor Tank	21,600 gal.		Х		
T222	Primary Water Storage Tank	200,000 gal.		Х		
T223	Concentrates Holding Tank	1,000 gal.			Х	
T301	Reactor Coolant Drain Tank	347 gal.	Х			Х
Т302	Auxiliary Building Drain Tank	1,300 gal.		Х	Х	Х

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# ATTACHMENT B

Equipment Number	Service	Capacity	Full Vacuum Capability	Vent Collection Header (Passive)	Loop Seal (Passive)	Gas Collection Header (Active)
т303А	Clean Waste Receiving Tank	15,322 gal.		Х		
т303в	Clean Waste Receiving Tank	15,322 gal.		Х		
Т304	Chemical Waste Drain Tank	6,500 gal.		Х		

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