UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	:	
	:	
GEORGIA POWER COMPANY, et al.	:	Docket Nos. 50-424 50-425
	:	
(Vogtle Electric Generating Plant, Units 1 and 2)	:	

COUNTY OF LOS ANGELES)
)
STATE OF CALIFORNIA)

AFFIDAVIT OF VICTOR L. GONZALES

I, Victor L. Gonzales, being duly sworn according to law, depose and say as follows:

1. My name is Victor L. Gonzales. I am employed by Bechtel Power Corporation ("Bechtel") in the position of Equipment Qualification Supervisor. My business address is Bechtel Power Corporation, 12440 East Imperial Highway, Norwalk, California 90650. Attached to this affidavit as Exhibit A is a summary of my professional qualifications.

2. The purpose of this affidavit is to support the Applicants' Motion for Summary Disposition of Joint Intervenors' Contention 10.5, which concerns the environmental qualification of solenoid valves used at the Vogtle Electric Generating Plant ("VEGP") manufactured by the Automatic Switch Company ("ASCO"). In this affidavit, I will

discuss the environmental qualification of the ASCO solenoid valves having the model numbers NP8316, NP8320, and NP8321 that were procured for VEGP by Bechtel. This affidavit will describe the operation of those valves, will review the qualification testing that has been performed on them, will discuss other tests performed on those model valves by Franklin Research Center, and will address the environmental qualification of those solenoid valves for use at VEGP in light of the Franklin Research Center test results. I have personal knowledge of the matters set forth herein and believe them to be true and correct.

I. Operation of the Model NP8316, NP8320, and NP8321 ASCO Solenoid Valves.

3. Bechtel has procured three models of ASCO solenoid valves, model numbers NP8316, NP8320, and NP8321, for use in safety-related functions at VEGP. ASCO solenoid valves are used at VEGP to control airflow to air operators on air operated process valves and dampers (hereinafter "process valve" will be used to refer to process valves and dampers). These solenoid valves may either permit the flow of air to a valve operator, causing the process valve to actuate, or terminate the flow of air to the valve and vent the air operator. By either venting or providing air to the air operator on the process valve, the solenoid valve enables the process valve to open or close. Figure 10.5-6 depicts a typical configuration of

an air operated process valve with its air operator and a solenoid valve. Air operated process valves are used in safety-related applications at VEGP in configurations designed to ensure that the valves assume a "safe" position, either open or closed, when the valve's air operator is vented.

4. The operation of an ASCO model NP8316 solenoid valve, which is a three-way, internal pilot operated valve, is described in paragraphs 4 through 6 of the Affidavit of Richard B. Miller dated July 26, 1985.

5. Unlike the model NP8316, the ASCO model NP8320 solenoid valve is a three-way, direct acting solenoid valve. Rather than using an internal pilot, the solenoid core motion directs airflow. Figure 10.5-7 depicts a model NP8320 valve in the energized and de-energized positions. In the de-energized mode, the solenoid valve core spring forces the core assembly (with valve seat) down, isolating the inlet port and connecting the exhaust port to the cylinder port. In this position, the solenoid valve would allow the air operator on the process value to vent. Energizing the solenoid causes the core assembly to lift up, allowing supply air to pass to the air operator on the process valve and isolating the exhaust port.

6. The ASCO model NP8321 solenoid valve, like the model NP8316 valve, is a three-way, internal pilot controlled valve. This model valve operates in a manner

similar to that of the model NP8316. The primary differences between the two valves are that the model NP8321 valve is piston operated and its exhaust orifice is larger than the pressure orifice, which allows relatively rapid venting. On the model NP8316 valve, all of the orifices are the same size and generally larger than those on the NP8321 valve. That allows for higher flow rates through the model NP8316 valve.

II. The Joint ASCO and Westinghouse Qualification Testing Program.

7. In 1980 and 1981, ASCO and Westinghouse jointly performed an environmental qualification testing program for various ASCO solenoid valves. Included among the solenoid valves tested were valves representative of the model NP8316, NP8320, and NP8321 solenoid valves procured by Bechtel for use in safety-related functions at VEGP. The objective of the qualification testing program was to demonstrate that the ASCO solenoid valves met or exceeded their safety related performance requirements while subjected to simulated normal and accident environments.

8. The joint ASCO/Westinghouse qualification program was conducted in accordance with the Institute of Electrical and Electronics Engineers ("IEEE") Standard 323-1974, "IEEE Standard for Qualifying Class IE Equipment for Nuclear Power Generating Stations;" IEEE Standard 344-1975, "IEEE Recommended Practices for Seismic Quali-

fication of Class IE Equipment for Nuclear Power Generating Stations;" and IEEE Standard 382-1972, "IEEE Trial-Use Guide for Type Test of Class 1 Electric Valve Operators for Nuclear Power Generating Stations."

9. The tests comprising the qualification program consisted of baseline performance tests; thermal, mechanical, and pressurization aging; normal environment radiation testing; vibration aging, operating basis earthquake simulation, and resonance testing; safe shutdown earthquake simulation; design basis event environmental radiation testing; and high energy line break ("HELB") environmental testing (test profile determined by a composite of the loss-of-coolant accident ("LOCA") and main steam line break ("MSLB") environmental conditions,. The HELB environmental testing is described in paragraphs 11 through 16 of Mr. Miller's affidavit. This joint ASCO/Westinghouse testing program qualified the ASCO model NP8316 and NP8320 solenoid valves to the environmental extremes profiled on Figure 10.5-3. Those extremes included (a) a peak temperature of 420°F, (b) pressure of 57 psig, and (c) a chemical spray of 2500 ppm boron buffered with sodium hydroxide to a pH of 10.5.

10. In the HELB environmental testing, the test valve representative of the model NP8321 valve would not shift to its de-energized position on the twelfth day of the test period. This failure occurred well after that

portion of the test period that simulated the period of time that the model NP8321 valve would be required to operate at VEGP following a design basis event. The twelve-day period that the model NP8321 valve continued to operate after exposure to simulated accident conditions represents in excess of a year of post-accident operation. That model valve, however, would be required to operate at VEGP for a period of no more than a few hours after the occurrence of a design basis event.

11. Because of the failure of the model NP8321 valve in the HELB environmental testing, ASCO does not consider it to be qualified to the environmental extremes profiled on Figure 10.5-3. Instead, it relies upon an earlier qualification testing program conducted by Isomedix, Inc. on behalf of ASCO to establish the environmental qualification of the model NP8321 valve.

12. As reported in Isomedix Test Report No. AQS21678/TR - Revision A, dated July 1979, Isomedix, Inc. performed qualification testing for ASCO on several models of ASCO solenoid valves, including a valve representative of the model NP8321 valve. That report states that the testing performed was conducted in accordance with the test outline contained in ASCO Qualification Specification AQS-21678 Revision B, which was based upon IEEE 323-1974, IEEE 382-1972, IEEE 344-1975, and IEEE 382/ANSI N278.2.1 (Draft 3, Rev. 1 June 1977) "Draft American National

Standard for the Qualification of Safety Related Valve Actuators." According to the report, the valves tested were subjected to sequential exposures of elevated temperature, radiation, wear aging, seismic simulation, vibration endurance, accident radiation, and a 30-day LOCA simulation.

13. Figure 10.5-4 reflects the environmental extremes to which the ASCO valves tested by Isomedix were qualified. Those extremes includes (a) a peak temperature of 346°F, to which temperature the valves were exposed for three hours in the Isomedix tests; (b) peak pressure of 110 psig; and (c) a chemical spray consisting of 3000 ppm boron buffered with sodium hydroxide to a pH value of 10.

III. The Franklin Research Center Testing Program.

14. In 1981 Franklin Research Center, under a contract from the Nuclear Regulatory Commission ("NRC"), began a testing program on ASCO solenoid valves. The valves tested by Franklin Research Center included two model NP8316 valves, one model NP8320 valve, and one model NP8321 valve. After performing functional tests, Franklin Research Center artificially aged one of the model NP8316 valves and the model NP8320 and NP8321 valves to simulate a four-year life at 140°F. It irradiated those valves to a total integrated dose of 50 megarads. Following irradiation, the valves were exposed to a temperature of 268°F

for approximately fifteen days and were cycled 2000 times while at that temperature. This artificial aging was significantly more severe than that used in the joint ASCO/Westinghouse testing program, in which the valves were cycled only 200 times at elevated temperatures and 1800 times at room temperature.

15. Following this artificial aging, the model NP8321 valve was removed from the test program because of what Franklin Research Center characterized as "excessive" seat leakage. The rate of the seat leakage encountered by Franklin Research Center with that valve was identified as more than 60 liters per minute at 150 lbf/in^2. That leakage rate, while apparently presenting problems to Franklin Research Center due to limitations imposed by its test apparatus, is well below any rate that might affect the ability of the model NP8321 valve to perform its safety-related function, as discussed later in this affidavit.

16. The second model NP8316 valve had been naturally aged by ASCO by exposure to 140°F for three years, and was not irradiated. That valve was cycled 2000 times at room temperature. The two model NP8316 valves and the model NP8320 valve then underwent pressurization testing, vibration aging, resonance search, seismic testing, design basis event radiation exposure, and a composite simulated MSLB and LOCA exposure.

17. The composite MSLB/LOCA simulation used by Franklin Research Center included two pressure and temperature transients, with a targeted peak temperature of 420°F and pressure of 68 psig, as well as steam, chemical spray, and high humidity conditions. Thermocouple data from the test chamber shows that certain areas in the test chamber experienced temperatures higher than the targeted test conditions.

18. Both of the model NP8316 valves failed to cycle properly during the composite MSLB/LOCA simulation. Paragraphs 21 and 22 of Mr. Miller's affidavit describe the points at which those valves failed to function during the MSLB/LOCA test.

19. The model NP8320 valve tested by Franklin Research Center functioned throughout the tests. Following the LOCA/MSLB simulation, the model NP8320 valve did experience what Franklin Research Center described as "severe" seat leakage. At 150 lbf/in^2 (1030 kPa), the seat leakage exceeded 100 cubic feet per hour. That seat leakage, however, did not prevent the valve from being operated to perform its safety function.

20. Franklin Research Center published a report concerning its test results in November 1983, which was entitled "Test Program and Failure Analysis of Class 1E Solenoid Valves." NUREG/CR-3424. In April 1984, the NRC

staff released IE Information Notice No. 84-23, which discussed its initial assessment of the Franklin Research Center test results.

21. In IE Information Notice No. 84-23, the NRC staff concluded that the test results obtained by Franklin Research Center for the artificially aged valves were inconclusive due to the severe preconditioning to which those valves had been exposed. The NRC staff decided that the failure of the naturally aged model NP8316 valve, however, called into question the prior test results obtained during the joint ASCO/Westinghouse testing program. That model ASCO solenoid valve, the NRC staff concluded, was qualified for use only in applications where it would not be exposed to environmental conditions more severe than the conditions to which that model valve had been tested in earlier qualification testing performed on behalf of ASCO by Isomedix, Inc. and reported in Isomedix Test Report No. AQS21678/TR-Revision A, dated July 1979. In that qualification testing program, the test valves were subjected to a peak temperature of 346°F for three hours. The NRC staff repeated these conclusions concerning the Model NP8316 valve in IE Information Notice No. 85-08 issued on January 30, 1985.

IV. The Results of the Franklin Research Center Testing Program Do Not Call Into Question the Environmental Qualification of the ASCO Model NP8316, NP8320, and NP8321 Solenoid Valves for Use at VEGP.

A. The Model NP8316 Valve.

22. The temperature conditions to which ASCO solenoid valves located inside containment at VEGP must be qualified are profiled in Figure 10.5-5. That profile represents a composite of the conditions resulting from a LOCA and MSLB. Inherent in this profile is a margin (difference between qualification profile peak temperature and calculated peak temperature) in excess of twenty degrees based upon calculations performed by Bechtel using a methodology consistent with the recommendations of NUREG-0588. As shown by that profile, during such a composite LOCA/MSLB transient the temperature inside containment would peak at 400°F. This peak would last for approximately three minutes.

23. As discussed in paragraphs 26 through 34 of the affidavit of Richard B. Miller, the model NP8316 valves used at VEGP have been environmentally qualified for use under the conditions to which they might be exposed at VEGP by the joint ASCO/Westinghouse qualification testing program supplemented by a thermal lag analysis performed by Westinghouse. That thermal lag analysis, which accounts for the amount of time necessary for the tem-

perature of the valve to equalize with the surrounding environment, demonstrates that under the most extreme conditions that could be experienced at VEGP, the temperature reached by the model NP8316 solenoid valves inside containment would not exceed the temperature of 346°F reached by the valves in the Isomedix test program, due to the short duration of the peak temperature extreme in the VEGP profile. As the NRC staff concluded in IE Information Notice Nos. 84-23 and 85-08, the results of that testing program by Isomedix have not been called into question by the valve failures experienced in the Franklin Research Center qualification testing under significantly more severe environmental conditions.

3. The Model NP8320 Valves.

24. As noted above, the model NP8320 valve tested by Franklin Research Center could be operated to perform its safety function throughout the test sequence. While the valve experienced what Franklin described as "severe" seat leakage, that seat leakage did not make it inoperable. The valve continued to perform its function despite that seat leakage. The results of the Franklin Research Center tests on the model NP8320 valve therefore do not call into question its environmental qualification for use at VEGP under the joint ASCO/Westinghouse testing program.

25. Seat leakage from the air supply system is not a concern with ASCO solenoid valves as long as the amount of

leakage does not exceed the capability of the valve to exhaust the incoming air. The leakage encountered by Franklin Research Center for the model NP8320 valve is within the capability of that valve to vent. The flow coefficient through the model NP8320 valve is the same in both positions (supplying air and exhausting air). Given these conditions, any leakage past the seat would be exhausted.

26. In a report that it submitted to the NRC staff evaluating the results of the Franklin Research Center tests, ASCO states that it considers the NP series valves to be performing satisfactorily as long as the cylinder port pressure does not deviate by more than 10% of the applied pressure at the valve inlet port. For the model NP8320 valve, ASCO conservatively calculated the minimum seat leakage that would have to occur to reach that defined threshold of acceptability to be 151 SCFH. That level of leakage is significantly greater than the leakage rate of approximately 100 SCFH experienced by Franklin Research Center with the model NP8320 valve that it tested.

C. The Model NP8321 Valves.

27. The model NP8321 valves used at VEGP have been shown to be environmentally qualified for use in the conditions that they might experience at VEGP by both the joint ASCO/Westinghouse qualification testing program and the prior qualification program performed by Isomedix,

Inc. on behalf of ASCO. Although the test valve representative of the model NP8321 valve failed during the HELB environmental testing in the joint ASCO/Westinghouse qualification program, that failure did not occur until twelve days into the test sequence, a period which simulated in excess of a year of post-accident operation. More importantly, however, the model NP8321 performed successfully throughout the qualification testing performed by Isomedix, Inc.

28. That testing qualified the model NP8321 valve to the environmental extremes profiled on Figure 10.5-4. Unlike the model NP8316 and NP8320 valves, the model NP8321 valve is not used inside containment at VEGP. Therefore, the adverse conditions to which it must be environmentally qualified are less extreme. Those conditions, which are profiled in Figure 10.5-8, are enveloped by the conditions to which the model NP8321 valve was qualified by the Isomedix testing program.

29. The seat leakage encountered by the Franklin Research Center with the model NP8321 valve that it tested does not call into question the environmental qualification of that model valve for use at VEGP. As indicated above for the model NP8320 valve, seat leakage does not affect the ability of an ASCO NP series valve to perform its safety-related function unless the leakage is of a magnitude that would significantly affect the valve

cylinder port pressure. For its defined threshold of acceptability of a deviation in cylinder port pressure of more than 10% of the applied pressure at the inlet port, ASCO calculates that seat leakage would have to reach 380 liters per minute (805 SCFH) to significantly affect the model NP8321 valve's cylinder port pressure. The leakage rate reported by Franklin Research Center for the model NP8321 valve that it tested was 60 liters per minute when the valve was energized (200 ml/min when de-energized), which rate is significantly less than the amount conservatively calculated by ASCO to be necessary to affect the valve's operability.

V. Other Recently Identified Problems With ASCO Solenoid Valves Do Not Apply to the Model NP8316, NP8320, and NP8321 ASCO Solenoid Valves Used in Safety-Related Functions at VEGP.

30. Two IE Information Notices recently issued by the NRC staff have noted potential problems with ASCO solenoid valves. The potential deficiencies described in those notices, however, are not applicable to the model NP8316, NP8320, NP8321 valves procured by Bechtel for use at VEGP in safety-related functions.

31. IE Information Notice 85-08, dated January 30, 1985, stated in pertinent part:

> ASCO NP series solenoid valves with resilient seats and Viton elastomers may be considered qualified only for those applications in which the valves <u>are not required to shift position</u> following exposure to total gamma radiation doses greater than 20 megarads up to 200 megarads. No qualification data are available for applications in which the radiation dose exceeds 200 megarads gamma.

While some of the model NP8320 and NP8321 solenoid valves used in safety-related functions at VEGP do have resilient seats and Viton elastomers, none of those valves are used in applications that would require a shift in valve position after the valve had been subjected to a total gamma dose greater than 20 megarads. IE Information Notice 85-08, therefore, does not raise any issue about the qualification of those valves.

32. IE Information Notice 85-17, issued on March 1, 1985, discussed sticking problems encountered at a boiling water reactor with model HTX 8323-20V ASCO solenoid valves. That model valve has a different solenoid from and is not similar to the model NP8316, NP8320, and NP8321 valves utilized at VEGP. No HTX series ASCO solenoid valves are used to perform safety-related functions at VEGP.

VI. <u>Conclusion</u>.

33. Bechtel has supplied to VEGP three models of ASCO solenoid valves, model numbers NP8316, NP8320, and NP8321, for use in safety-related functions. The model NP8320 valve has been shown to be qualified for use in the

environmental conditions to which it might be exposed at VEGP by the joint ASCO/Westinghouse qualification testing program. The conditions to which that model valve was tested in the ASCO/Westinghouse program exceeded the most severe conditions to which that valve might be subjected at VEGP. The testing conducted by the Franklin Research Center provided additional confirmation of that valve's environmental qualification.

34. The environmental qualification of the model NP8316 valve for use at VEGP has been demonstrated by that same qualification testing program as supplemented by the thermal lag analysis performed by Westinghouse. That analysis showed that under the most extreme conditions that could be experienced at VEGP, the temperature reached by the model NP8316 valves would not exceed 346°F, the temperature reached by the valves tested in the Isomedix qualification testing program.

35. With respect to the model NP8321 valve, the qualification testing program performed by Isomedix, Inc. establishes its environmental qualification for use at VEGP. The extreme conditions to which the model NP8321 valve was exposed in this testing program envelope the most severe conditions to which that model valve might be exposed at VEGP.

36. For these reasons, I am confident that the model NP8316, NP8320, and NP8321 solenoid valves used in safety-related functions at VEGP are environmentally qualified.

Victor L. Gonzales

Sworn to and subscribed
before me this 29th
day of July, 1985.

Joanne E. Henry
Notary Public

OFFICIAL SEAL
JOANNE E HENRY
NOTARY PUBLIC - CALIFORNIA
LOS ANGELES COUNTY
My comm. expires NOV 22, 1985

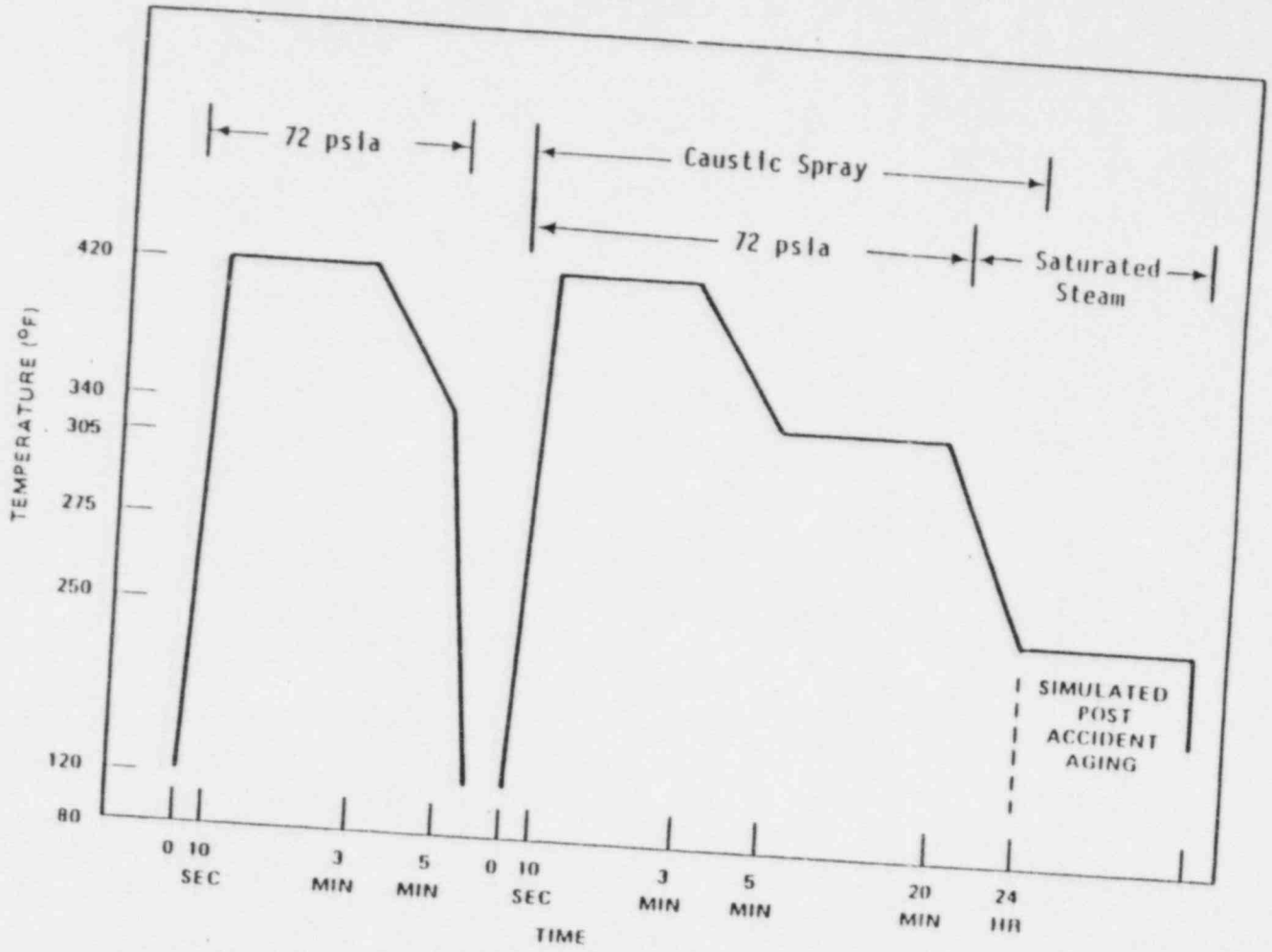
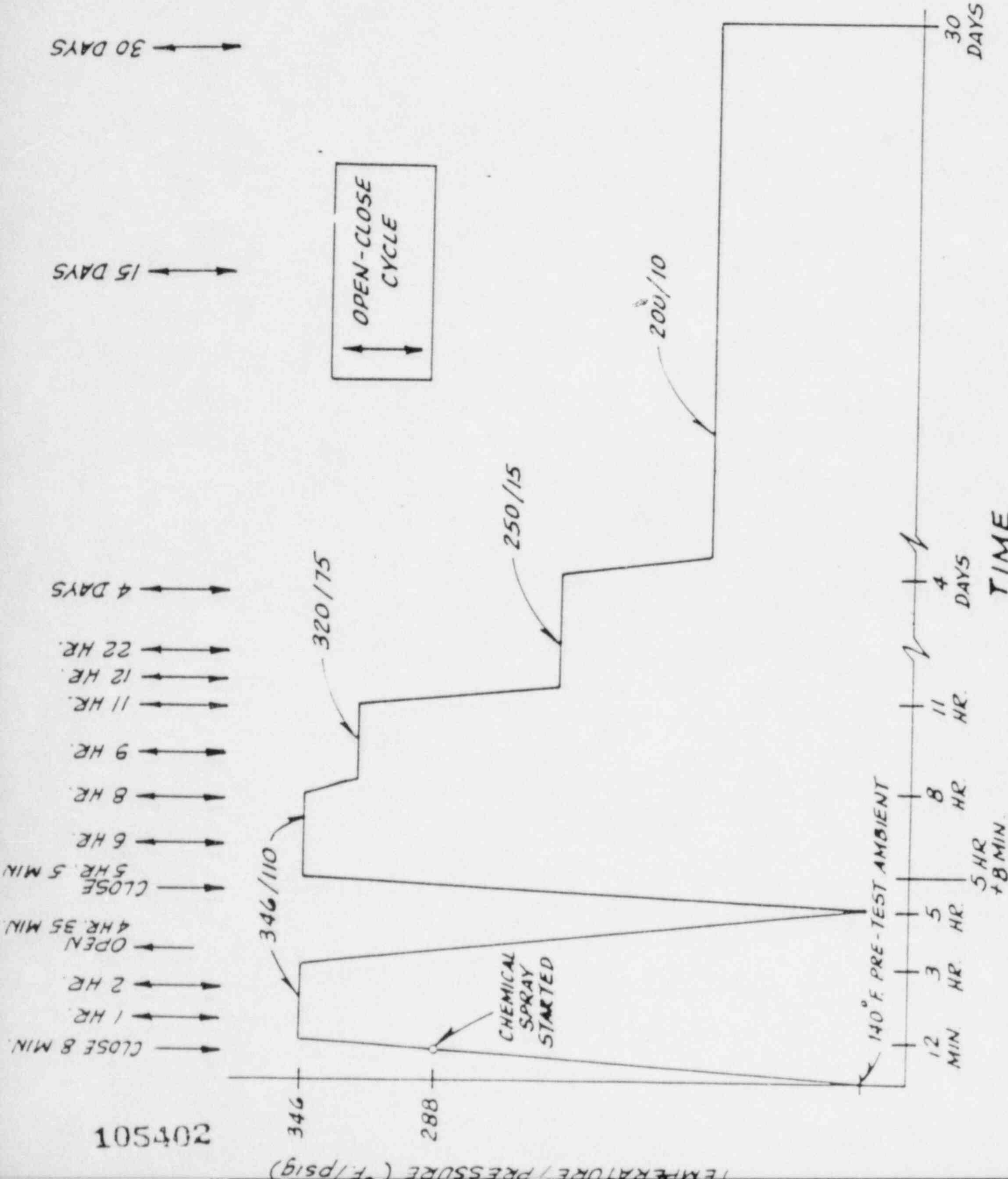


FIGURE 10.5-3 WESTINGHOUSE GENERIC LOCA/MSLB PROFILE

FIGURE 10.5-4

ACTUAL LOCA SIMULATION BY ENVIRONMENTAL EXPOSURE (STEAM / CHEMICAL)



ACTUAL TEMPERATURE/PRESSURE PROFILE FOR SIMULATION OF LOSS-OF-COOLANT ACCIDENT (LOCA) DESIGN BASIS EVENT (DBE) BY STEAM/CHEMICAL SPRAY ENVIRONMENTAL EXPOSURE

105402

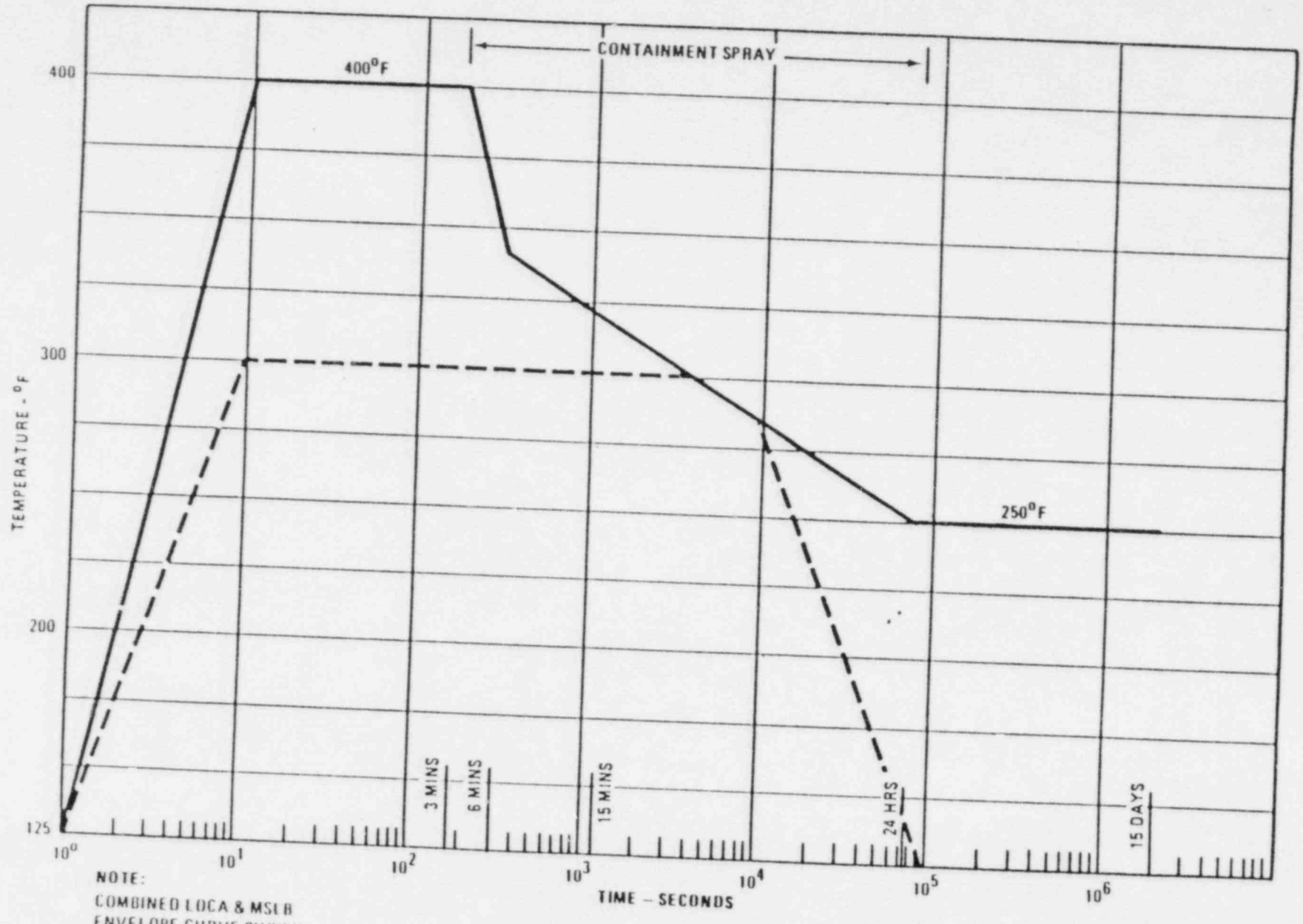
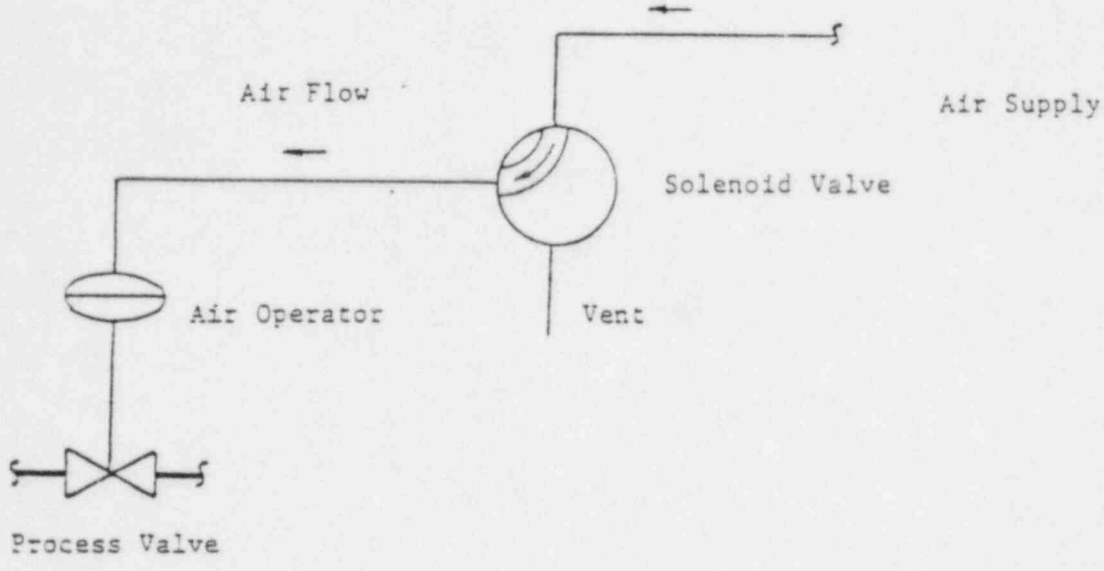
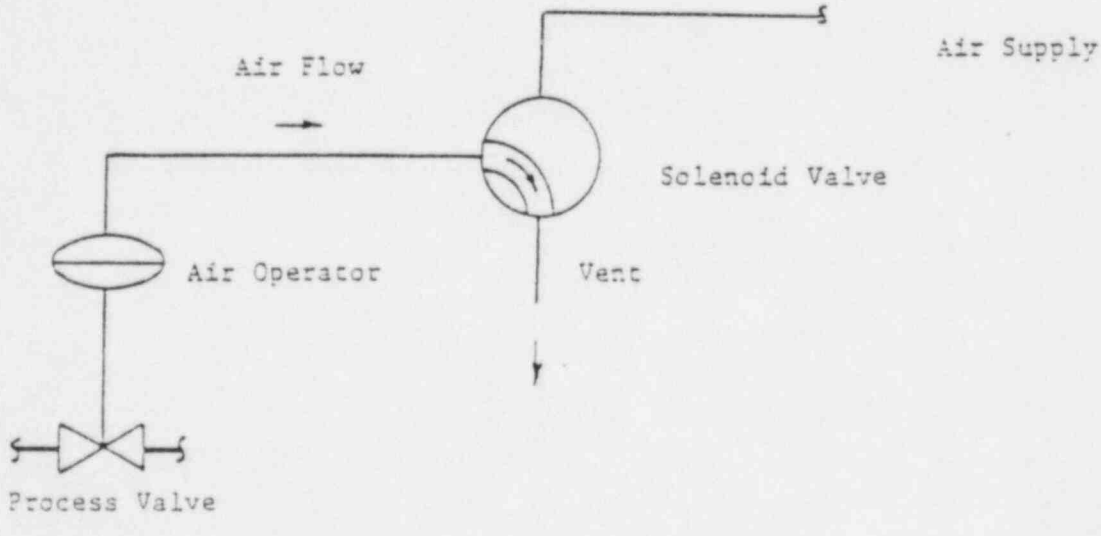


FIGURE 10.5-5

TEMPERATURE CONDITIONS FOR ENVIRONMENTAL QUALIFICATION INSIDE CONTAINMENT (VAPOR REGION)

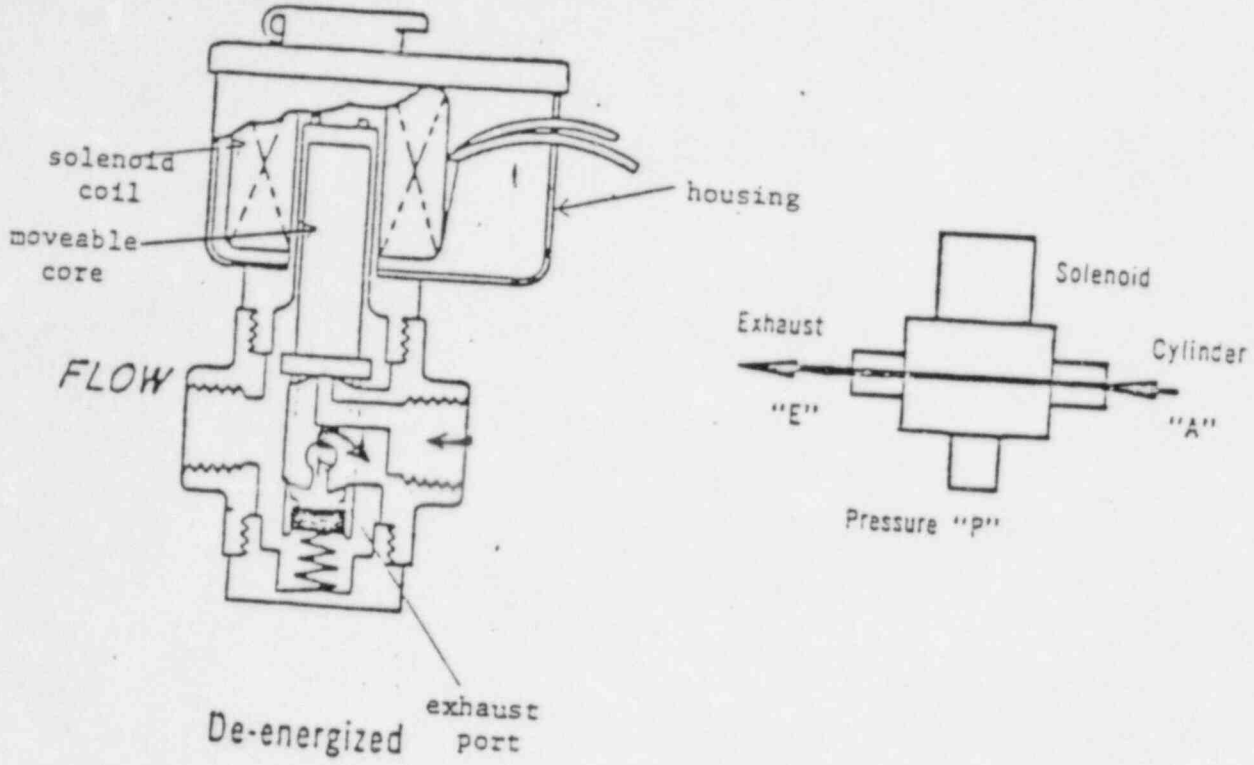


Solenoid Valve Providing Air to Air Operator



Solenoid Valve Venting Air Operator

FIGURE 10.5-6 - Typical Operation of Solenoid Controlled AOV


solenoid coil
moveable core
housing
FLOW
exhaust port
De-energized
Solenoid
Exhaust
Cylinder
"E"
"A"
Pressure "P"

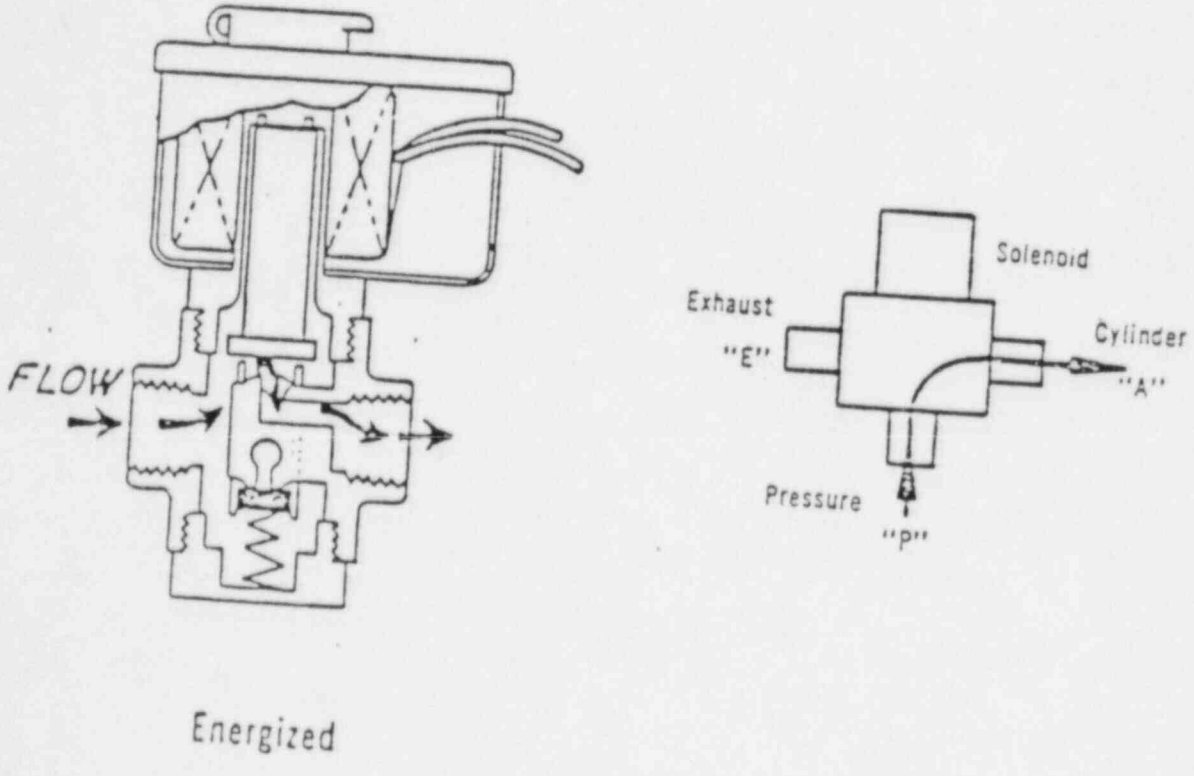

FLOW
Energized
Solenoid
Exhaust
"E"
Cylinder
"A"
Pressure
"P"

FIGURE 10.5-7

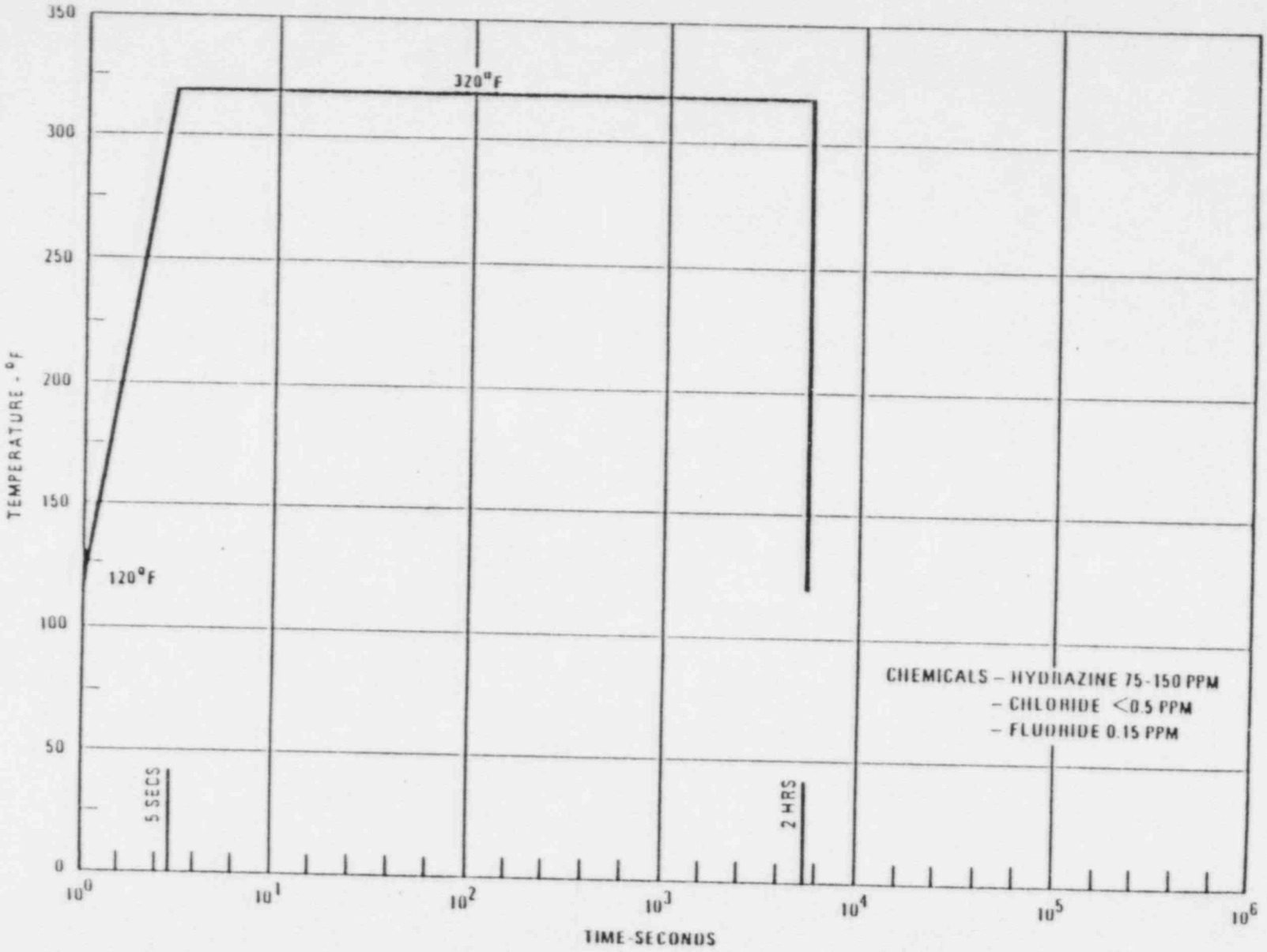


FIGURE 10.5-8 TEMPERATURE CONDITIONS FOR EQUIPMENT QUALIFICATION INSIDE MSIV OR MFIV AREA

EXHIBIT A

V. L. GONZALES
EQUIPMENT QUALIFICATION COORDINATOR/SUPERVISOR
VEGP PROJECT

Bechtel Power Corporation, Western Power Division

PROFESSIONAL QUALIFICATIONS

EDUCATION

BS, Mechanical Engineer, California State University, Long Beach, California

EXPERIENCE SUMMARY

Present:	Engineering Supervisor
15 Years:	Increasingly responsible positions as Mechanical Systems Engineer on nuclear and fossil fueled power projects

EMPLOYMENT HISTORY

1970 to present: Bechtel Power Corporation, LAPD

SPECIFIC QUALIFICATIONS IN THE EQUIPMENT QUALIFICATION FIELD

Five years with the VEGP equipment qualification group. Mr. Gonzales is presently Engineering Supervisor/Coordinator to the Equipment Qualification Group for the Alvin W. Vogtle nuclear power project. His responsibilities include defining and reviewing electrical/controls/mechanical equipment qualification plans, procedures, and reports for compliance with project qualification documents based on IEEE 323-1974 and IEEE 344-1975 requirements. Since his appointment as Equipment Qualification Coordinator, his responsibilities also include the reconciliation of the overall project qualification program with the nuclear steam supply system (NSSS) vendor (Westinghouse) qualification program to developing NRC guidelines, for all safety-related equipment.

Prior to this, Mr. Gonzales was a Mechanical Group Leader responsible for NRC Standard Review Plan and Regulatory Guide compliance on the Alvin W. Vogtle nuclear power project. In addition, Mr. Gonzales reviewed all mechanical systems to determine their degree of compliance with the then-new NRC criteria.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	:	
	:	
GEORGIA POWER COMPANY, et al.	:	
	:	DOCKET NOS. 50-424
	:	50-425
(Vogtle Electric Generating Plant, Units 1 and 2)	:	

CERTIFICATE OF SERVICE

I hereby certify that copies of the Affidavit of Victor L. Gonzales, dated July 26, 1985, were served upon those persons on the attached Service List by deposit in the United States mail, postage prepaid, or where indicated by an asterisk (*) by hand delivery, this 30th day of July, 1985.

James E. Joiner
Attorney for Applicants

Dated: July 30, 1985

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of	)	
	)	
GEORGIA POWER COMPANY, et al.	)	Docket Nos. 50-424
	)	50-425
(Vogtle Electric Generating Plant, Units 1 and 2)	)	

SERVICE LIST

Morton B. Margulies, Chairman
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. Gustave A. Linenberger
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. Oscar H. Paris
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Bernard M. Bordenick, Esquire
Office of Executive Legal Director
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Atomic Safety and Licensing Board
Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Atomic Safety and Licensing
Appeal Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

*Douglas C. Teper
1253 Lenox Circle
Atlanta, Georgia 30306

*Laurie Fowler
Legal Environmental Assistance
Foundation
218 Flora Avenue, N. E.
Atlanta, Georgia 30307

*Tim Johnson
Campaign for a Prosperous Georgia
175 Trinity Avenue, S. W.
Atlanta, Georgia 30303

Docketing and Service Section
Office of the Secretary
U. S. Nuclear Regulatory
Commission
Washington, D. C. 20555

Bradley Jones, Esquire
Regional Counsel
U. S. Nuclear Regulatory
Commission
Suite 3100
101 Marietta Street
Atlanta, Georgia 30303