

# REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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 AUTH.NAME AUTHOR AFFILIATION  
 VAN BRUNT,E.E. Arizona Public Service Co.  
 RECIP.NAME RECIPIENT AFFILIATION  
 NOVAK,T.H. Division of Licensing

SUBJECT: Forwards responses to open items re 820803-06 pump & valve operability review team (PVORT) audit.

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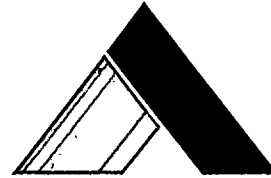
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LIC BR #3 LA	1 0	LICITRA,E. 01	1 1
INTERNAL: ELD/HDS3	1 0	IE FILE	1 1
IE/DEP EPDS 35	1 1	IE/DEP/EPLB 36	3 3
NRR/DE/CEB 11	1 1	NRR/DE/eqB 13	3 3
NRR/DE/GB 28	2 2	NRR/DE/HGEB 30	2 2
NRR/DE/MEB 18	1 1	NRR/DE/MTEB 17	1 1
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EXTERNAL: ACRS 41	10	10	BNL(AMDTs ONLY)	1	1
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August 19, 1982  
ANPP 21657-WFQ/TFQ

Mr. T. H. Novak  
Assistant Director for Licensing  
Division of Licensing  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Subject: Palo Verde Nuclear Generating Station  
(PVNGS) Units 1, 2 and 3  
Docket Nos. STN-50-528/529/530  
File: 81-056-026, G.1.10

Dear Mr. Novak:

Enclosed are responses to the open items of the Pump and Valve Operability Review Team (PVORT) Audit conducted at the PVNGS site, August 3 through 6, 1982.

Please contact me if you have any questions on this matter.

Very truly yours,

E. E. Van Brunt, Jr.  
APS Vice President  
Nuclear Projects  
ANPP Project Director

EEVB/TFQ/dh

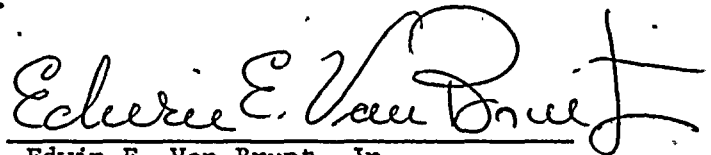
cc: F. Maraglia  
E. Licitra (w/a)  
R. Wright (NRC) (w/a)  
C. Miller (EG&G) (w/a)

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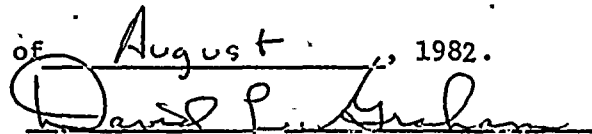


STATE OF ARIZONA     )  
                              ) ss.  
COUNTY OF MARICOPA)

I, Edwin E. Van Brunt, Jr., represent that I am Vice President Nuclear Projects of Arizona Public Service Company, that the foregoing document has been signed by me on behalf of Arizona Public Service Company with full authority so to do, that I have read such document and know its contents, and that to the best of my knowledge and belief, the statements made therein are true.

  
Edwin E. Van Brunt, Jr.

Sworn to before me this 19th day of August, 1982.

  
Notary Public

My Commission expires:

My Commission Expires May 19, 1986

My Commission Expires May 19 1955

1. Resolution to PVORT Finding of Findings and Status Form Page 1

CVCS Charging Pump 1-P-CHB-PO1

A detailed review of the manufacturer's and vendor's recommended installation configuration for the plexiglas pump cover-plate has revealed the following information:

- 1) As indicated in the PVORT, this cover-plate is to be both sealed (gasketed) and vented to provide an outlet for water or hydrazine vapor which may accumulate in this housing.
- 2) The sealed and vented requirement for the cover, however, is needed to preclude area hydrazine buildup and is essentially at issue only from a room habitability standpoint. It should not effect pump operability, except in its role as a dust cover for the pump pistons. Good industry practice would indicate that the moving parts (i.e. the pistons) should be kept clean and free of abrasive particles which could cause premature wear. An inspection of the pumps of all three units has shown that the pumps in Units 2 & 3 are configured in accordance with the vendors sealing requirements, as in Unit 1 pump 1-P CHA-PO1. Please refer to the attached sketch and pictures. Unit 1 pumps 1-P-CHB-PO1 & 1-P-CHE-PO1 do not conform to this requirement for sealing in that the vent line is smaller than the hole in the cover-plate. Corrective action will be taken to assure that the sealing on these two pumps will be identical or equivalent to the others and provide an equivalent level of personnel safety.

2. Resolution to PVORT Findings of Findings and Status Form Pages 5 and 11.

- 1) CVCS (CVIC) 1" Pneumatic Globe Valve/NSSS-CH-505
- 2) Hydrogen Purge Valve/BOP-HPA-UV-003.

A review has been made of the design and functioning of these valves, the PVNGS policy regarding their operation, and their indication in the control room on the Safety Equipment Status Status System (SESS) Panel.

Design & Functioning

Item 1., CH-505, has a manual mechanical operating mechanism which, if engaged, prevents the valve from functioning pneumatically. This mechanism does not have provision for contacts to provide an automatic remote indication or override of the operation of this mechanism.



Item 2., UV-003, has a manual mechanical operating mechanism which will not prevent the valve from being automatically functioned, unless a padlock, pin, wire or some other sort of restraining device is used to secure the handle in the mechanical position. Although such devices are not presently planned for use at the site, their use on a case-by-case or even unauthorized basis cannot be ruled out. Also, there is no provision for automatic remote indication of the operation of this mechanism.

Therefore, it can be postulated correctly that both of these valves could be put in a position which would disable automatic operation upon demand.

#### Operating Policy

There are two operating conditions under which these valves could be put into the manual mechanical mode:

1. During maintenance of the valve or the system in which it is connected.
2. During operations when the valve is found to be not automatically operable.

In the first case, the maintenance procedures, which are in preparation at this time, will specify that the final step of any maintenance on the remotely operable valve will be to stroke it remotely to verify proper operations. In the second case, the discovery of the non-operable valve will cause an "action statement" to be generated which will require a work order to be performed to correct the problem causing the non-operability. This work order will then be performed to the procedures discussed in the first case, which will result in the same disposition.

In addition, for both these cases, there will be an SESS Panel indication of the inoperable status of the specific valve. This has been verified specifically for CH-505 and UV-003, as well as for their counterparts in the other safety train. In the first case, this indication will be manually done in accordance with maintenance and operating procedures. In the second case, the initial failure to operate will cause automatic SESS initiation. Both initiations must be cleared following proper operating procedures.

In addition to these policies and safeguards, there are two other operations procedures, in preparation, which will provide additional assurance that these valves will be available when needed:



1. Operations will perform a routine valve line-up verification.
2. After fuel load or any time the containment is opened, a containment integrity (isolation) check is performed prior to initiating start-up.

All of these policies are in accordance with the PVNGS Tech. Specs.

#### SESS Indication

The Safety Equipment Status System (SESS) supplies signals to a panel in the control room which automatically indicates inoperability of any active class i.e. equipment on the following systems (passive equipment such as manual valves are not included):

1. Containment Isolation
2. Main Steam Isolation
3. HPSI
4. Recirculation
5. Aux. FW to SG 1
6. Aux. FW to SG 2
7. LPSI
8. Passive Safety Injection
9. Containment Spray
10. Iodine Removal
11. Containment Purge Isolation
12. Control Room Filtration Isolation
13. Control Building Essential ACU
14. Fuel Building Essential Ventilation
15. Essential Chilled Water
16. Essential Cooling Water
17. Essential Spray Pond
18. Diesel Generator
19. IE Load Center Breaker
20. Non-ESF Load Shed

Both of these valves are so automatically indicated upon their failure to operate when required or upon failure of their power supplies, as indicated previously. In addition, both may and will be manually indicated as inoperable in any of the situations previously discussed, which encompass all such postulated occurrences.



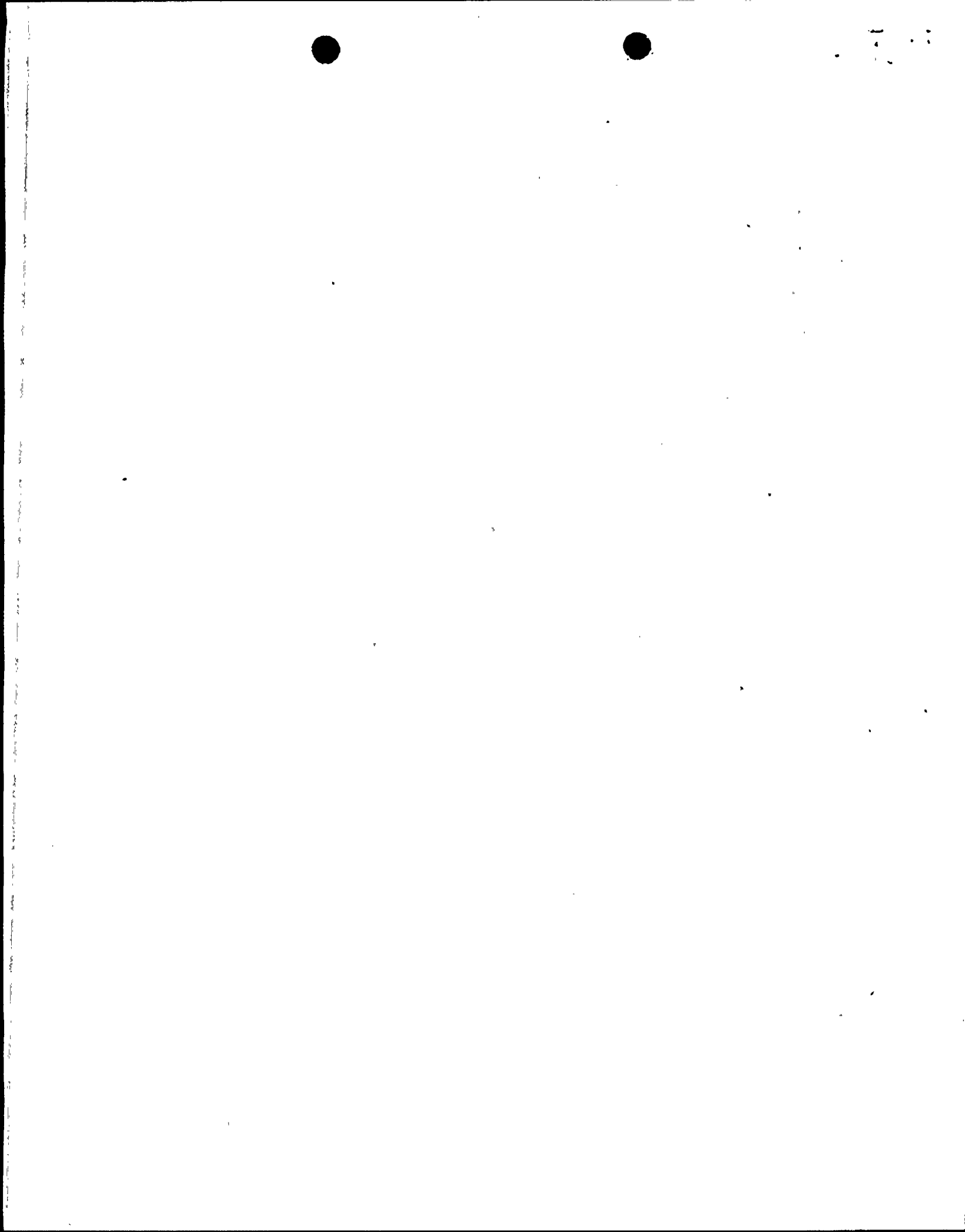
In addition to these valves, all non-manual valves will be handled in the manner described, as appropriate. For instance, all critical valves are individually indicated on the SESS; others being included in system inoperable indication. Non-containment isolation valves will obviously not be subject to containment integrity checks.

3. Resolution to PVORT Findings of Findings and Status Form Page 8

A visual inspection was made of the MSIV hydraulic actuator in question (BOP-J-SGE-UV-180), in order to identify the correct serial and model numbers. The correct numbers are as follows:

- 1) Model Number F-5155
- 2) Serial Number E-9023-1-2, which is identical to the valve serial number.

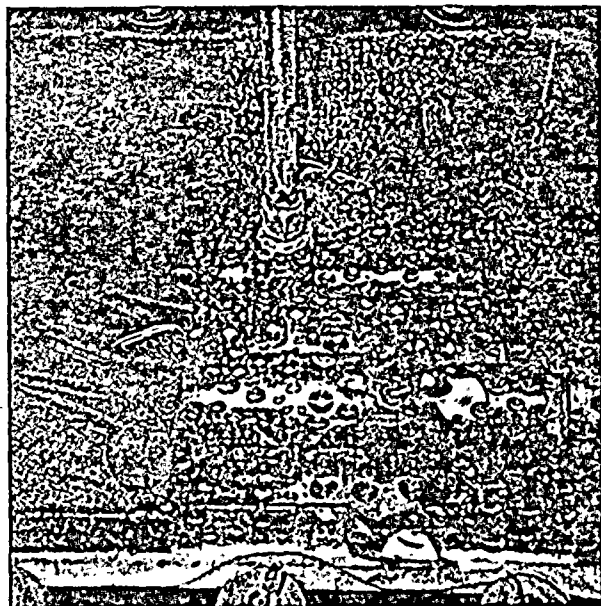
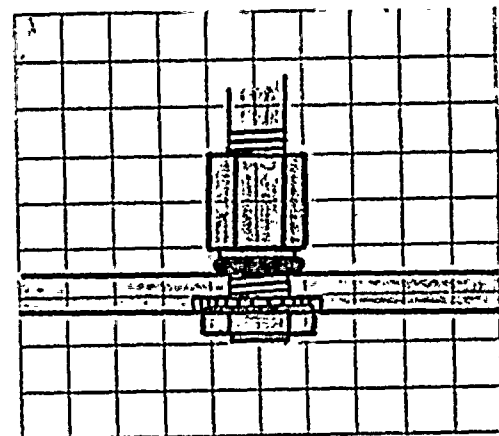
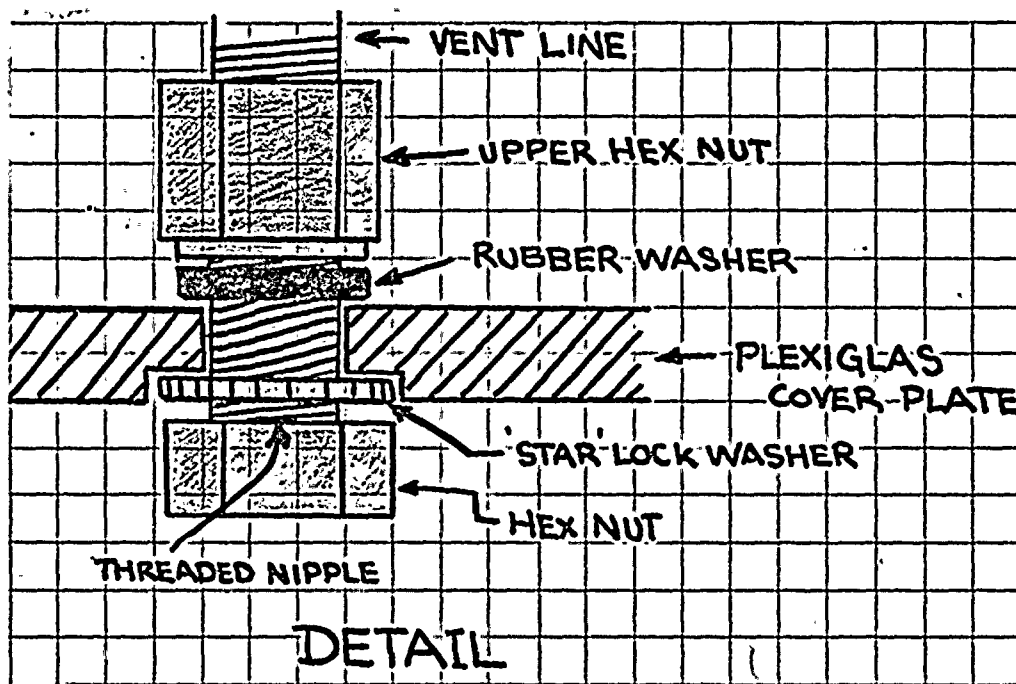
These new numbers have been transferred onto the PVORT and SQRT Master Forms.



SKETCH

CHARGING PUMP  
COVER VENT MOUNTING

GOUVIER  
18 AUG 82

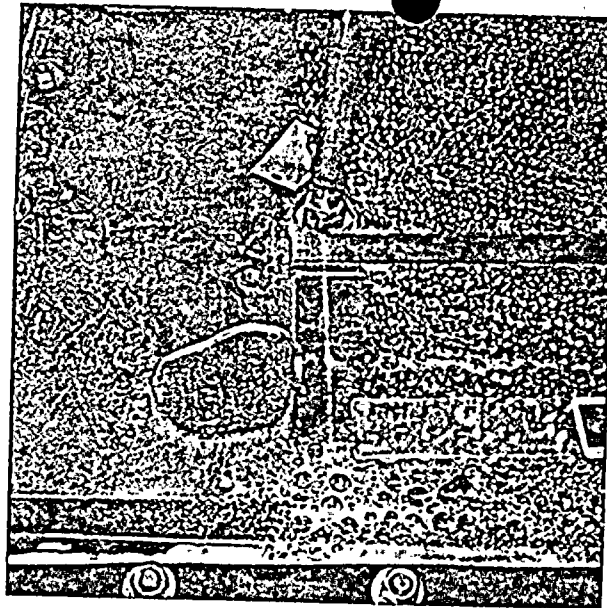


INSTALLATION DETAIL OF THE  
VENTS FOR THE FOLLOWING  
PUMPS:

1-P-CHA-PO1	UNIT 1
2-P-CHA-PO1	} UNIT 2
2-P-CHB-PO1	
2-P-CHE-PO1	
3-P-CHA-PO1	} UNIT 3
3-P-CHB-PO1	
3-P-CHE-PO1	

1-P-CHA-PO1





as built/installed  
1-P-CHB-PO1

UNSEALED VENT  
INSTALLATION

