

9513337.1253



FLUOR DANIEL

US DEPARTMENT OF ENERGY
HANFORD WASTE VITRIFICATION PLANT

DESIGN CHANGE NOTICE

DCN - 0192

REV 0

DGL
PAGE 1 OF 43

DCN TITLE
Firewater pump permissive
start with partially closed
valves

DATE INITIATED
27 June 1994

PACKAGE NO.
A160

SECTION 1: DESCRIPTION OF CHANGE

This DCN revises the specification wording to state that the Fire Pumps (PX-500-002A/B) may start even if suction or discharge valves are not open. Previously approved specifications state that if either suction or discharge valve is not fully open, the pump shall not start.

FOR LIST OF AFFECTED DOCUMENTS, SEE SECTIONS 6 AND 7.

CAUSE OF CHANGE:

- Field Change Request
- Supplier Disposition
- Deficiency Report
- Design Development
- Change Request
- TBD/Hold
- Other Title III Review

RTC-727
(Ref. EDN T3-017)
Initiating Document(s)

SECTION 2: EVALUATION

	IF "YES", ADDITIONAL REVIEW REQUIRED BY:	REVIEWER COMMENTS AND SIGNATURE/DATE
WAPA DWG/SPEC? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	_____	_____
QUALITY LEVEL I DWG/SPEC? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	_____	_____
SAFETY CLASS 1 OR 2 DWG/SPEC? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	_____	_____
SYSTEMS ANALYSES AFFECTED? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	_____	_____
MULTI-DISCIPLINE CHANGE? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	_____	_____
DCN Evaluated by: Systems <u>J. Stokes</u> ^{6/28/94} ADM <u>B. Ciambri</u> ^{6/28/94} Others <u>J. Cortez</u> ^{6/28/94}	Control Systems	No Comments

SECTION 3: APPROVED FOR CONSTRUCTION

Donald S. Saboury 28 JUNE 94 Philip Call 6/28/94
 Originator Date Project Resident Engineer Date

SECTION 4: CONCURRENCE

Philip Call 7-21-94
Project Management Date

Peter J. Grand for H.E. Savage 7-21-94
Systems Date

Alvin Va 7-21-1994
Independent Safety for J.G. Kelly Date

Ernie Dwyer 7-25-94
Quality Assurance Date

Frank Stokes 7-21-94
Configuration Management Date

SECTION 5: RELEASED FOR CONSTRUCTION

PE STAMP REQUIRED? NO YES

PA. Smith 7/28/94
WHC Date

[Signature] 7-27-94
UCAT Date

James E. [Signature] 22 JUL 94
DOE Date

COMMENTS:

9513337.1254



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DESIGN CHANGE NOTICE

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REV

DISCIPLINE

PKG. NO.

PAGE

0

Mech

A160

2

PREPARED BY: *D. G. LaBounty*
D. G. LaBounty

Date: 27 June 94

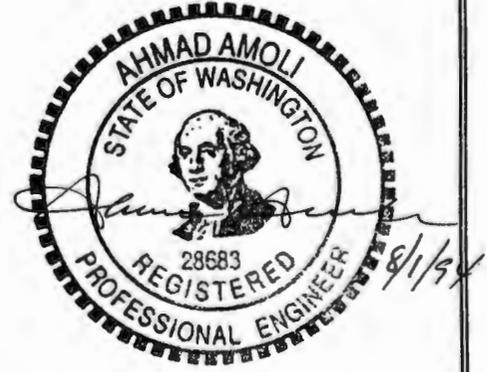
DISCIPLINE ENGINEER: *D. G. LaBounty*
D. G. LaBounty

Date: 27 June 94

SECTION 6: CONSTRUCTION DOCUMENTS AFFECTED

DOCUMENT NUMBER	SHT/PAGE	REV NO	DOCUMENT NAME	INCLD Y/N	DESCRIPTION OF CHANGE
B-595-C-A160-15540	11	1	Fire Water System Pumps	Yes	Revised wording of specification to state that partially opened or closed suction or discharge valves shall not inhibit the start of the fire water pumps. <i>REFER TO DCN-0153 REV. 3 FOR ADDITIONAL CHANGES TO SPECIFICATION 15540 RELATED TO THIS CHANGE.</i>

ISSUED FOR DEPARTMENT OF ECOLOGY PERMIT ONLY



EXPIRES 9-11-94

SECTION 7: NON CONSTRUCTION DOCUMENTS AFFECTED

This section references affected items such as P&IDs or calculations/analyses, but they are generally not included in DCN package.

DOCUMENT NUMBER	SHT/PAGE	REV NO	DOCUMENT NAME	DESCRIPTION OF CHANGE
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N/A

9513337.1255

Rev. 1

- 4) Power Available indicating light.
- 5) Power Available auxiliary contact. This shall be wired to terminal blocks.
- 6) Low Discharge Pressure indicating light (PL-FWX-388B).
- 7) Terminal Block for external inputs.
- 8) High Pressure indicating light (PL-FWX-387B).
- 9) YC-FWX-383 Loop 287 logic.

Refer to Drawing H-2-121657, Sheet 1 for panel layout and nameplate descriptions.

B. Fire Water Pumps (PX-500-002A) [PX-500-002B]

The Fire Water Pumps are normally in auto standby mode while the fire water header pressure is being maintained by the jockey pump (PX-500-004). When the header pressure drops to 85 psig (PSL-FWX-018) [PSL-FWX-019] persistently for 15 seconds (KS-FWX-018), PX-500-002A starts automatically. If PX-500-002A is not available or low pressure persists for 20 seconds (KS-FWX-019) due to excessive demand, PX-500-002B starts automatically to supply the necessary water pressure. For each pump, if the suction valve switch (ZSL-FWX-012-1) (ZSL-FWX-012-2) or the discharge valve switch (ZSL-FWX-017-1) (ZSL-FWX-017-2) indicates the respective valve is closed, the respective alarm light for the suction valve (ZAL-FWX-012-1) (ZAL-FWX-012-2) or discharge valve (ZAL-FWX-017-1) (ZAL-FWX-017-2) will light. At the same time, an alarm horn on the outside of the pump house will sound. Also, pumps (PX-500-002A) [PX-500-002B] are inhibited from starting if their respective inlet and/or outlet valves are closed. An operator action is required to shutdown the pumps. The status of both pumps is indicated in the DCS (by Buyer).

Seller shall furnish an FM-approved or UL-listed fire pump flowmeter. This flowmeter shall be of the averaging pitot tube-type. The fire pump flowmeter shall be used as a permanent installation to measure the fire pump flow performance.

The flow indicator shall have a 6 inch (minimum) dial, with a scale reading directly in GPM. The measurement accuracy shall be within ± 1 percent over a scale range of 750 to 3000 GPM.

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DCN-0192

NOT



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