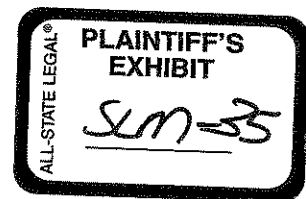


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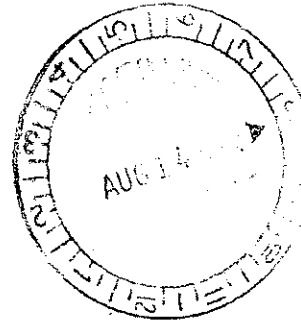


August 10, 1967

Reference: 9593
Ser 6153B1-1917

Naval Ship Engineering Center
Washington, D. C. 20360

Attention: Mr. V. Wiersma
Head, Pumps, Blowers and Compressors Section
Auxiliary Equipment Branch



Dear Sir:

Reference is made to NAVSEC letter dated August 3, 1967.

We deeply appreciate your comments relative to the draft of my report covering the Joint Meeting of June 27, 1967. These recommendations have been accepted, and I believe that the contents of the final report, as issued, meets all of your requirements.

Very truly yours,

Frank P. Anderson
Chairman

FPA:eu

Enclosure

cc:(nsoc) Messrs. Jelly, Ellis, Freed, McGinnis, McGuckin, Northam, Schanzlin, Sniffen, Lindros, McCammon, Metzgar, Navratil, Schivley, Schumacher, Paugh, Tuthill, Herndon, Weom, DeFerro, Donohue, Nelson, Smith, and L. G. Humphrey

SLM00147

REPORT: Joint Conference: Representatives of the
Naval Ships Engineering Center,
Naval Ships Systems Command, and
Pump Manufacturers

PLACE OF MEETING: The Mayflower Hotel, Washington, D. C.

DATE AND TIME: Tuesday, June 27, 1967 - - 9:30 A.M.

PRESENT:

Naval Ships Systems Command
M. S. Cohen
A. A. Napoletano

Hydraulic Institute

J. F. Cooke	Allis-Chalmers Mfg. Co.
D. F. Cress	Allis-Chalmers Mfg. Co.
H. L. Glass	Warren Pumps, Inc.
M. F. Hagerstrom	Ingersoll-Rand Company
B. Hawks	DeLaval Turbine Inc.
L. K. Herndon	The Weinman Pump Mfg. Co.
L. G. Humphrey	Buffalo Pumps Division
P. N. Israel, Jr.	Warren Pumps, Inc.
I. A. Jelly	Aurora Pump Division
E. E. Lindros	Byron Jackson Pumps, Inc.
C. G. McGinnis	Ingersoll-Rand Company
J. C. Northam	Worthington Corporation
R. F. Paashaus	Worthington Corporation
J. J. Paugh	Warren Pumps, Inc.
E. H. Schanzlin	Tuthill Pump Company
C. D. Stauffer	Fairbanks Morse Inc. Pump Div.
H. J. Welch	DeLaval Turbine Inc.
Frank P. Anderson	Institute Staff

Others

O. DeFerro	Pacific Pumps, Inc.
J. A. Donohue	M. T. Davidson
A. D. Hale	American Machine & Foundry Co., Cuno Engineering Corp.
N. H. Hundt	American Machine & Foundry Co., Cuno Engg.
R. E. Nelson	Blackmer Pump Company
W. K. Noble	Pacific Pumps, Inc.
W. W. Smith	Sier Bath Div., Gilbarco, Ind.

Purpose of Meeting:

This conference was arranged at the request of the Hydraulic Institute to provide an opportunity to discuss comments by both members and non-members of the Hydraulic Institute relative to the following Specifications:

MIL-P-17881B - Pumps, Centrifugal, Boiler Feed (Multi-Stage)
MIL-P-18472D - Pumps, Centrifugal, Condensate, Feed Booster and
Distilling Plant
MIL-P-18682A - Pumps, Centrifugal, Main Condenser Circulating

Discussion at this time continued the work started on
March 16, 1967, when MIL-P-17639B - Pumps, Centrifugal, Miscellaneous
Service, was reviewed in full detail.

COMMITTEE TO REVIEW MILITARY SPECIFICATIONS

EXHIBIT A
JUNE 26, 1967

SLM00148

Discussion:

Prior to this meeting all of the comments, fully identified and unedited, had been submitted both to the Navy Department Representatives and to all of the companies which had submitted comments.

In addition to the foregoing, all of the comments had been arranged to correspond to the sequence of the Specifications themselves. This was to facilitate discussion. The text was not altered in this reorganization.

In response to a request from the Navy Department Representatives, the comments were roughly classified into categories by each submitter, at the meeting, as follows:

- C - Clarification Requested
- A - Accept or No Comment
- R - Recommend
- N - Not recommended
- 1 - Low effort addition
- 2 - High effort addition
- 3 - Low cost addition
- 4 - High cost addition

Attached as Exhibit No. 1 is a tabulation indicating those paragraphs on which comments were submitted. This tabulation indicates those paragraphs on which further action is required as a result of the foregoing discussion. Where no action is required, the paragraph number is merely listed with the comment, "Comments discussed."

A copy of this tabulation was submitted to the Navy Department Representatives subsequent to the meeting for confirmation of the understanding recorded.

Time and Place of Next Meeting:

The consensus was that there should be another Conference similar to this one in Washington, D. C., during the month of October, 1967.

Adjournment:

The feeling of everyone present indicated that this Conference had resulted in much better understanding, and the Navy Department Representatives were thanked for their cooperation and participation.

There being no further business, the Conference adjourned.

Reported by
Frank P. Anderson
Chairman

ATTACHMENT: Exhibit No. 1 - Tabulation covering Comments on
MIL-P-17881B, MIL-P-18472D, and MIL-P-18682A

REPORT ON JOINT CONFERENCE
Navy Department Representatives and Pump Manufacturers
Washington, D. C. - June 27, 1967

MIL-P-17881B - Pumps, Centrifugal, Boiler Feed (Multi-Stage)

General Paragraphs - Comments discussed.

- 3.1 - NAVSEC previously had sent letter to all former qualified bidders. Previously qualified manufacturers (on QPL) will be able to bid under current specification, even if new design is involved. First unit in new contract must have the 500 hour endurance test and shock test. Design report MIL-1302 must be submitted if manufacturer is not on the QPL. Further, as mentioned in the foregoing letter, manufacturers already on the QPL are also required to submit this design report if their pump has not had three years of satisfactory operation in service.
- 3.2.2.2 - NAVSEC advised that this is only a design requirement - not guarantee.
- 3.2.3.3 - NAVSEC advised that vibration has not been a problem environmentally except in one known instance, but tests are required.
- 3.3.1.2 - Comments discussed.
- 3.3.1.3 - Comments discussed.
- 3.3.1.7 - NAVSEC will modify
- 3.3.2 - Pump manufacturers asked to furnish data limiting K factors. NAVSEC asked if the manufacturers would rather use single volute with shaft below first critical instead of complying with double volute requirements. This question was not answered at the meeting.
- 3.3.2.1.4 - Comments discussed.
- 3.3.2.1.6 - NAVSEC advised that individual stage venting not required.
- 3.3.2.2 - Comments discussed.
- 3.3.4.1 - NAVSEC will modify per March 16, 1967, discussion.
- 3.3.4.2 - Comments discussed.
- 3.3.4.5 - Comments discussed.
- 3.3.5.4 - NAVSEC will modify.
- 3.3.6.2 - Comments discussed.
- 3.3.6.3 - NAVSEC to consider this requirement further.
- 3.3.7.2 - NAVSEC has had problems.
- 3.3.7.3 - Comments discussed.
- 3.3.7.6 - Comments discussed.
- 3.3.8 - Comments discussed.

Exhibit No. 1

SLM00150

MIL-P-17881B (Contd.)

- 3.3.8.6 - Comments discussed.
- 3.3.8.7 - NAVSEC to consider this requirement further.
- 3.3.9 - Comments discussed.
- 3.3.9.1 - Comments discussed.
- 3.3.10.2 - NAVSEC to consider this requirement further.
- 3.3.11.2 - Comments discussed.
- 3.3.11.4 - Comments discussed.
- 3.4 - NAVSEC has had problems but will consider alternate materials of equal or better service quality as general design application but not for specific ship application.
 - 3.4.1.3 - NAVSEC will modify.
 - 3.4.1.4 - NAVSEC will modify.
 - 3.4.1.8 - Comments discussed.
 - 3.4.1.9 - NAVSEC will modify per March 16, 1967, discussion.
- 3.6 - NAVSEC will discuss with staff paint experts.
 - 3.6.2 - Comments discussed.
- 3.7.3 - Comments discussed.
- 3.8.2.6 - Comments discussed.
- 3.8.2.7 - NAVSEC advised that it did not intend that a complete set of special tools was to be supplied with each pump.
 - 3.8.2.8 - Comments discussed.
- 3.9.4.3.2 - Comments discussed.
- 3.9.5.2 - NAVSEC indicated that there was no objection to the listing of Federal or Military Specs.
- 3.10.4 - Comments discussed.
- 3.10.5 - Comments discussed.
 - 3.10.5(b) - NAVSEC will clarify in coordination with paragraphs 4.4.2.4 and 4.4.3.1.5(e).
 - 3.10.5(d) - NAVSEC to clarify per March 16, 1967, discussion.

Exhibit No. 1

SLM00151

MIL-P-17881B (Contd.)

4.1.4 - Comments discussed.

4.2 - Comments discussed.

4.3 - Comments discussed.

4.4.1.3 and 4.4.1.4(a) - NAVSEC will consider this requirement further
per March 16, 1967, discussion in connection with MIL-P-17639B.

4.4.1.4 - NAVSEC will modify.

4.4.1.4(b) - Comments discussed.

4.4.1.6 - Comments discussed.

4.4.2 and 4.4.2.1 - Comments discussed.

4.4.2.2(a) - Comments discussed.

4.4.2.2(c) - NAVSEC will clarify.

4.4.2.3 - Comments discussed.

4.4.2.4 - NAVSEC will clarify.

4.4.3 - Comments discussed.

4.4.3.1 - Comments discussed.

4.4.3.1.4 - NAVSEC will clarify per discussion of March 16, 1967.

4.4.3.1.5(e) - NAVSEC will clarify.

4.4.3.1.5(h) - NAVSEC advised that lineal extrapolation is intended.

6.2 - NAVSEC will discuss with staff metallurgists and will consider
nitriding.

6.2.1 - Comments discussed.

6.3 - Comments discussed.

MIL-P-18472D - Pumps, Centrifugal, Condensate, Feed Booster and
Distilling Plant

General Paragraphs - Comments discussed.

2.2 - Comments discussed.

3.1 - Comments discussed.

3.2.1 - Comments discussed.

3.2.1.2 - Comments discussed.

3.4.1 - Comments discussed.

3.4.2 - Comments discussed.

3.4.2.4 - Comments discussed.

3.4.2.5 - Comments discussed.

3.4.4 - NAVSEC has had difficulties.

3.4.7 - Comments discussed.

3.4.9 - Comments discussed.

3.4.9.4 - Comments discussed.

3.4.15 - NAVSEC will discuss with staff paint experts.

3.5 - Comments discussed.

3.5.1.1 - NAVSEC indicated intent to avoid large impellers - may revise.

3.5.1.2 - Comments discussed.

3.5.1.3 - NAVSEC will discuss with staff bearing experts but would like
recommendations from pump manufacturers.

3.5.1.4 - Comments discussed.

3.5.1.5 - Comments discussed.

3.5.1.6 and 3.5.1.7 - Pump manufacturers asked to furnish data limiting
K factors. NAVSEC also advised that, instead of
complying with double volute requirements, single
volute with shaft below first critical could be
furnished.

3.5.2, 3.5.3.1, and 3.5.4 - NAVSEC has had difficulties.

3.5.5.3 - Comments discussed.

Exhibit No. 1

SLM00153

MIL-P-18472D (Contd.)

- 4.1 - Comments discussed.
 - 4.1.1 - Comments discussed.
 - 4.1.4 - NAVSEC advised that prevention of contamination is intended.
 - 4.2 - Comments discussed.
 - 4.2.1 - Comments discussed.
 - 4.2.2 - Comments discussed.
 - 4.3 - Comments discussed.
 - 4.4.1.4 - NAVSEC will consider this requirement further.
 - 4.4.2.1 - Comments discussed.
 - 4.4.2.2 - NAVSEC advised that net flow does not include recirculation.
 - 4.4.3 - Comments discussed.
 - 4.4.3.1 - Comments discussed.
 - 4.4.3.1.1 - NAVSEC will modify.
 - 4.4.3.1.4 - NAVSEC to study clarification regarding frequency of readings and meaning of "surveillance."
 - 4.4.3.2.5 - Comments discussed.
 - 4.4.3.3 - Comments discussed.
 - 6.2 - NAVSEC advised that MIL-S-867 or ASTM A296 Gr. CF-8 may not be used in connection with casing and impeller. NAVSEC will consider modification to permit use with diffuser and channel ring castings for fresh water service.
 - 6.3 - Comments discussed.
-

MIL-P-18682A - Pumps, Centrifugal, Main Condenser Circulating

General Paragraphs - Comments discussed.

3.1 - Comments discussed.

3.2.2.2 - Comments discussed.

3.2.4.1 - Comments discussed.

3.2.7.1.5 - NAVSEC advised that a different set of criteria would apply to grease lubricated bearing.

3.2.9 - NAVSEC will clarify per decision on MIL-P-17881B.

3.2.10 - Comments discussed.

3.2.14.1 - NAVSEC advised that sea water is required where that is liquid pumped.

3.2.19 - Comments discussed.

3.2.20 - NAVSEC will clarify per decision on MIL-P-17639B.

3.3.2.2 - Comments discussed.

3.3.3.5.1 - Comments discussed.

3.3.3.11 - Comments discussed. NAVSEC indicated proof tests will be acceptable.

3.3.3.11.1 - NAVSEC will consider relaxation of this paragraph and will circulate results of Navy tests.

3.3.8.4 - NAVSEC advised no change per discussion March 16, 1967, regarding MIL-P-17639B.

3.3.10.1 - Comments discussed.

3.4.3.1 - NAVSEC advised that it did not intend that a complete set of special tools was to be supplied with each pump.

3.4.3.2 - Comments discussed. Answer same as for 3.4.3.1.

3.6.4.3.2 - Comments discussed.

3.6.5.2 - Comments discussed.

3.7.4 - Comments discussed.

3.7.5 - Comments discussed.

4.2 - Comments discussed.

4.4.1.3 and 4.4.1.4(a) - Comments discussed.

Exhibit No. 1

SLM00155

MIL-P-18682A (Contd.)

4.4.2.1 - Comments discussed.

4.4.3 - Comments discussed.

4.4.3.1 - Comments discussed.

4.4.3.1.4 - NAVSEC will clarify per discussion of March 16, 1967.

4.4.3.1.5(h) - NAVSEC advised that lineal extrapolation is intended.

4.4.3.4.1 - NAVSEC advised that this was covered in MIL-P-17639B.

6.2 - Comments discussed.

6.3 - Comments discussed.

Subsequent to the meeting, NAVSEC advised that no modifications to specifications MIL-P-17639B, MIL-P-18472D, MIL-P-18682A, or MIL-P-17881B will be issued by Naval Ship Engineering Center prior to July 1, 1968.
