Subject: IGMC Case #0006862 OSC File No. DI-11-3077

COMPLAINT RESPONSE

In response the Inspecting Generals Office for the Marine Corps I have the following details left out of this report that are need mentioned for the reviewer of this report for its completeness.

I noted that in my first conversation with the inspector Mr. Worth he had no working knowledge of boilers, or pressure vessels.

As stated in the report from the Marine Corps Inspector General to the Office of Special Council the inspector diligently pursued the allegation I stated that plant workers had been injured by pressurized hot water or steam. Not one reference to speaking with any of the employees is mentioned in this report. Managers and the NFEC Inspection team were the interviewed persons in this report.

1. During my interview I gave Mr. Worth the name one of the employees that have a working knowledge of the plant going back to 1982, and his name, and any response he gave were left out of this report.

2. The pictures taken of the defective valves in the boiler plant, and any subsequent damage to the plant were left out of the report.

3. The statement that there are no 300 pound class valves don't exist in the boiler plant are incorrect. I have extracted from the specification section from the Task Order 0003 Replace Valves, and Repair Boilers at building 1577 that prove differently. Please see the attached.

4. The service ticket to Public Works to have the valves in the plant evaluated stem from the unsafe working conditions in the boiler plant. I reference OSHA 29 U.S.C. § 654, 5(a)1 (General Duty Clause)

5. Not mentioned in the Inspector General's report for the Marine Corps in my reference for the repairs needed that is not mentioned in this report to the Office of Special Council. (MCO P11000.9C REAL PROPERTY FACILITIES MANUAL, VOLUME VI, ENERGY AND UTILITIES MANAGEMENT. Please see the attached documents.

6. The actual valves are Crane Valves in the boiler plant, and I have attached their specification sheet for reference which refers to the psi rating. (POUNDS PER SQUARE INCH)Please see the attached documents.

7. The Boiler Inspection report given in this report was conducted by the Naval Facilities Engineering Command's Senior Inspector. He was not interviewed on the accuracy of his report.

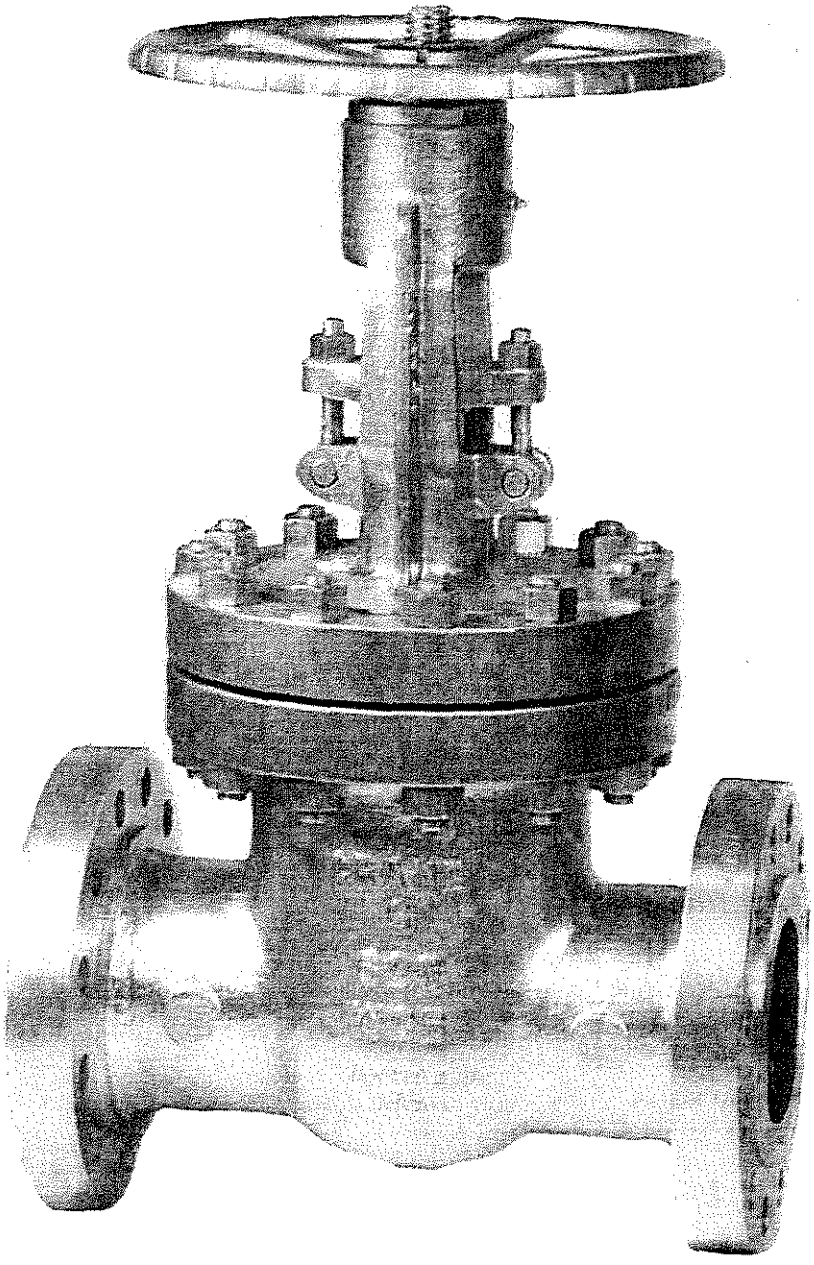
8. The enclosed report attached states that the recommendation that both isolation valves be repaired, or replaced with valves capable of holding 600 psi water, or greater. Class valves must be ASME (American Society of Mechanical Engineers) rated. This means the Pressure Class of the valve.

9. Public Works pursued through the acquisition process a contract for a contractor to come into the boiler plant and replace the defective valves. The replaced valves in the plant were used valves. The government's request in to the contractor was to replace the valves, but did not specify for the valves to be new. More information left out about the conditions in the boiler plant.

CRANE

Energy Flow Solutions

Crane Cast Steel Valves



CRANE

Installation, Marking, and Identification

When purchasing valves, reference should also be made to MSS SP92 "Valve Users Guide." Inquires relating specifically to Crane products may be referred to our factory or customer service department.

Marking and identification of Crane steel valves conforms to ASME B16.34 and MSS SP-25.

It is important to properly identify valves in service to allow for the ordering of replacement parts or address questions or concerns relating to our products. Body markings and information shown on the identification plate helps to properly identify valves, allowing timely and accurate responses to such inquiries.

Integrally cast body marking data includes the following information and helps to provide traceability:

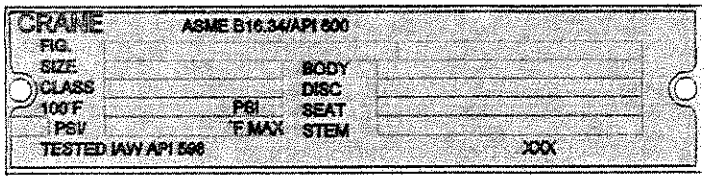
- Crane logo
- Pressure class
- Valve size
- "Steel" symbol for the grade of material (i.e. WCB for carbon steel)
- Heat number – on body and bonnet (cast or stamped)
- Individual serialization

The body markings are supplemented by an identification plate which, depending on valve type and size, is mounted in the most practicable position. Tag location for gate and globe valves is typically on the valve yoke or body/bonnet flange. Check valve tags are typically mounted on the rim of the cap.

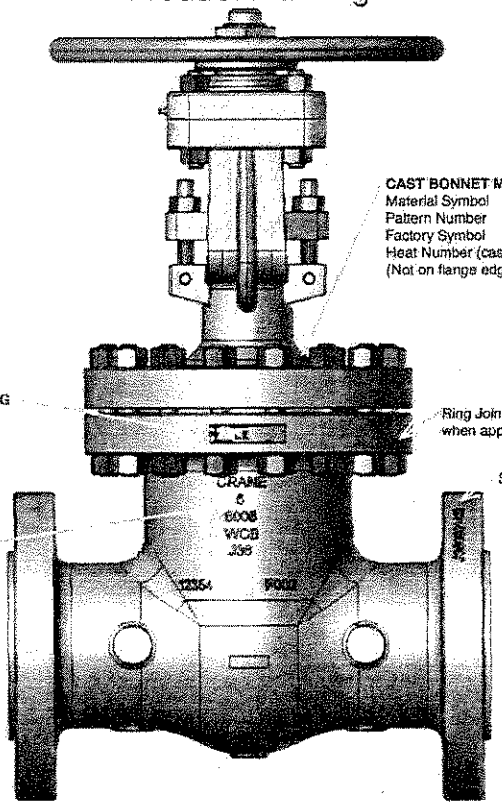
Identification plates bear the following information:

- Catalog number
- Valve size
- Body material
- Disc material
- Stem material
- Seat and trim material
- Pressure and temperature rating

I.D. Tag Marking Information



Product Marking



CAST BONNET MARKING:
Material Symbol
Pattern Number
Factory Symbol
Heat Number (cast or stamped)
(Not on flange edge unless recessed.)

ID TAG

Ring Joint Number (stamped) when applicable

Serial Number (stamped)

CAST BODY MARKING:

CRANE	
Size	2, 2½, 3, 4...
Class	150, 300, 600, 900
Material	Material Grade Symbol
Factory ID	Manufacturer's Identification Symbol
Pattern No.	XXXXX (Optional)
Foundry Symbol	YYYY

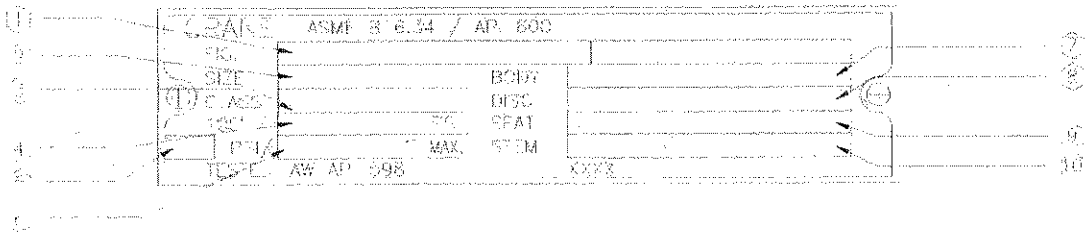
NOTES:
Cast lettering to be raised Gothic type.
All stamped markings to be low stress.

7.0 IDENTIFICATION

All CRANE valves are identified with a metal Tag that is riveted to the valve. This tag is usually found on the body/bonnet joint area, or on the top plate area near the handwheel.

Explanation of Tag Markings		
1	Figure Number	Number identifying the valve's main features including material, class, trim, end connections, and operator type. See the following Sections for classification of Figure Numbers.
2	Size	Nominal pipe size (NPS) of the valve.
3	ASME B16.34 Class	Pressure class rating of the valve as defined in ASME B16.34, Section 2.
4	PSI @100°F	Pressure in psig at which the valve is rated to operate when the temperature does not exceed 100°F.
5	PSI @ Max °F	Maximum pressure at which the valve may be operated at the maximum temperature allowed by ASME B16.34, Table 2.
6	Max °F	Maximum temperature at which the valve may be operated within the limits of pressure allowed by ASME B16.34, Table 2.
7	Body	Body ASTM material grade designation.
8	Disc	Disc or Wedge trim material.
9	Seat	Seat trim material.
10	Stem	Stem material.
	XXXX	Country of Origin.

When performing any work, ordering spare parts, or requesting technical support, please refer to this tag. The Serial number is stamped on the valve flange ends. The Figure number (1) and Factory code (J###) cast on the side of the valve body are keys to proper valve identification.



Cast Steel Valves

CRANE

General Index

Crane Valve also manufactures bronze ball valves, iron wafer and lug butterfly valves, bronze and iron gate globe and check valves, and alloy valves. Brochures and catalogs are available on request.

Figure Number Index

FIGURE NO.	VALVE TYPE	PRESSURE CLASS	CONNECTIONS	SIZE RANGE	PAGE NO.
28	Stop Check Valve	300	Flanged	3" – 10"	32
28½			Butt-Weld	(80 – 250 mm)	
30	Stop Check Valve	300	Flanged	3" – 10"	33
30½			Butt-Weld	(80 – 250 mm)	
33	Gate Valve	300	Flanged	2" – 24"	11
33½			Butt-Weld	(50 – 600 mm)	
47	Gate Valve	150	Flanged	2" – 24"	10
47½			Butt-Weld	(50 – 600 mm)	
76	Gate Valve	600	Flanged	2" – 12"	12
76½			Butt-Weld	(50 – 300 mm)	
123	Tilting Disc Valve	150	Flanged	2" – 36"	26
123½			Butt-Weld	(50 – 900 mm)	
143	Globe Valve	150	Flanged	2" – 12"	16
143½			Butt-Weld	(50 – 300 mm)	
147	Swing Check Valve	150	Flanged	2" – 24"	21
147½			Butt-Weld	(50 – 600 mm)	
151	Globe Valve	300	Flanged	2" – 12"	17
151½			Butt-Weld	(50 – 300 mm)	
159	Swing Check Valve	300	Flanged	2" – 24"	22
159½			Butt-Weld	(50 – 600 mm)	
171	Globe Valve	600	Flanged	2" – 8"	18
171½			Butt-Weld	(50 – 200 mm)	
175	Swing Check Valve	600	Flanged	2" – 12"	23
175½			Butt-Weld	(50 – 300 mm)	
323	Tilting Disc Check	300	Flanged	2" – 36"	27
323½			Butt-Weld	(50 – 900 mm)	
623	Tilting Disc Check	600	Flanged	2" – 30"	28
623½			Butt-Weld	(50 – 750 mm)	
923	Tilting Disc Check	900	Flanged	3" – 18"	29
923½			Butt-Weld	(80 – 450 mm)	
1523	Tilting Disc Check	1500	Flanged	2" – 10"	30
1523½			Butt-Weld	(50 – 250 mm)	

1.3.1 Associated works

Work associated with this section including insulation, and valve painting (if valves was not manufacturer painted) is covered in other section of this specification

1.3.2 Description

The work shall includes the furnishing, installing, and testing of high temperature water valves and repair boiler water tube inside the building 1577, as indicated, together with all fittings and appurtenances necessary for a complete and operable system.

1.3.3 Field verification

The contractor shall become familiar with all details of the works, verify all dimensions in the field, verify the maximum operating temperature and pressure of the primary HTHW loop with the heating plan foreman, and advise the Contracting Officer of any discrepancy within 3 days and before perform any work.

1.3.4 Identification

Each major item of equipment shall have manufacturer's name, address, type or style, and model or serial number on a plate secured to the item of equipment.

1.3.5 Procedure and qualifications

Before any welding is performed, the Contractor shall submit welding procedure specifications for all metal included in the work, together with proof of its qualification as outlined in AWS B2.1

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Pre-construction Submittals

Valves

Gaskets

SD-02 Shop drawings

HTW System connection diagrams within building

SD-07 Certificates

Valves

Gaskets

PART 2 PRODUCTS

2.1. Pipe Fittings

Fittings shall be compatible in thickness with the pipe being used, shall be used in conformance with ASME B31.1, and shall conform to the following requirement. Flanges shall be serrated or raised-faced type.

2.1.1 Gaskets

The Contractor shall submit the manufacturers published temperature and pressure ratings and provide materials recommended by the manufacturer for the maximum operating temperature, system design pressure, and service specified herein.

2.1.2 Bolting

Bolt studs for flanged joints shall be alloy steel studs; thread on both ends and fitted with two-hexagon nut per stud. Bolt shall be ANSI B18.2.1 and material shall conform to ASTM A 193/A 193M, grade B-7 thread class 7 fit. Nut shall be American standard heavy semi-finished hexagonal (ASME B18.2.2) and material shall conform to ASTM A 194/ a 194M, grade 7.

2.1.3 Valves; Gate, Globe, ball, Check, Angle, and Control

All valve material shall conform to ASME B16.34. Valve bodies shall be carbon or stainless steel (Type 304 or 316) with stainless steel trim. All valves shall be class 300. Ends shall be butt welding or raised face flanges type conforming to ASME B16.34. Valve pressure and temperature design values shall not be exceed. The contractor shall submit the manufacturers recommended materials list for valves, packing, and gaskets with certification that all meet the system design pressure of 350PSIG at maximum operating temperature of 400F and the service as specified herein.

2.1.4 Gate valves

Refer to Section 01110N-1.2.1 Project description on note 3 and 4. Unless otherwise indicated or specified, gate valves used as shutoff valves at main headers and elsewhere, as indicated, shall be the chain-operated type and shall have sufficient chain for easy operation from the operating floor or walkway. Gate valves shall be the wedge disc type with bonnet bushings. The bonnet shall be equipped with a bonnet bushing. The valves

shall have a self-centering male and female equipped with a gasket, two-way, single seated, equal percentage-flow type.

2.1.5 Check Valves

Refer to Section 01110N-1.2.1 Project description on note 5

Valves for Class 300 300 pound class steel piping shall conform to the following:

Sizes 3 inches through 24 inches, steel: ASME B16.34, Class 300 minimum flanged ends, swing disc.

2.1.6 Joints

2.1.6.1 Flanged joints

Joint s for connection to valves in high temperature water system shall be welded or flanged, faced true, provided with gaskets, and made perfectly square and tight. Flanges shall be forged steel, raised face, weld-neck type. Slip-on flanges will not be allowed. Gaskets for HTW system shall be ferrous alloy.

PART 3 EXECUTION

3.1 Installation

Arrange work in a neat and orderly manner so that minimum storage of equipment and material at the project site. All parts shall be readily accessible for inspection, repair, and renewal. Protect material and equipment from the weather.

3.2 Valves

3.2.1 General

Install valves in conformance with ASME B31.1 and as required herein at the location indicated on drawing M-1. Install valves with stems horizontal or above. Provide with safe access in the form of walkways or ladders. Install valves in position accessible for operation and repair.

3.3 QUALITY CONTROL

3.3.1 General test Requirements

Test shall be conducted before, during, and after the installation of the system. All instruments, equipment, facilities, and labor required to properly conduct the tests shall be provided by the Contractor. Test pressure gages for a specific test shall be approved by the Contracting Officer and shall have dials indicating not less than 1-1/2 time nor more

TABLE 2. ECIP PROJECT CATEGORIES

Category	Title (Economic Life)	Description
1	Energy Monitoring And Control Systems (EMCS): (15 years)	Projects which centrally control energy systems with the ability to automatically adjust temperature, shed electrical loads, control motor speeds, or adjust lighting intensities.
2	Steam and Condensate Systems: (25 years)	Projects to install condensate lines, cross connect lines, distribution system loops, and rehabilitate existing lines including improved insulation and steam flow meters and controls.
3	Boiler Plant Modifications: (25 years)	Projects to upgrade or replace central boilers or ancillary equipment to improve overall plant efficiency. This includes fuel switching or dual fuel conversion.
4	Heating, Ventilation, Air-Conditioning (HVAC) (15 years)	Projects to install more efficient HVAC or hot water systems. This includes the HVAC distribution system (ducts, pipes, etc.)
5	Weatherizations: (25 years)	Projects improving the thermal envelope of a building. This includes building insulation (wall, roof, foundation, doors), windows, vestibules, earth berms, shading, etc.
6	Lighting Systems: (25 years)	Projects to install replacement lighting systems and controls. This would include daylighting, new fixtures, lamps, ballasts, photocells, motion sensors, IR sensors, light wells, highly reflective painting, etc.
7	Energy Recovery Systems: (25 years)	Projects to install heat exchangers, regenerators, heat reclaim units, or recapture energy lost to the environment.

3101. BOILERS AND UNFIRED PRESSURE VESSEL INSPECTION

1. General. Because of their threat to safety when defective, boilers and unfired pressure vessels require inspection by specially trained and certified inspectors. Activities staffed with such certified inspectors should conduct in-house inspections by specific job orders. Activities not having such specialists may request the services of the cognizant EFD or may contract for the inspections required by and following chapter 3, section 2, of NAVFAC MO-322. Refer to MCO P11000.7 for additional information. This guidance applies to the Marine Corps Reserve.

2. Information

a. Boilers and unfired pressure vessels are potentially dangerous systems. Boilers, especially, are costly items which require large annual expenditures for operation and maintenance. Personnel responsible for boiler and pressure vessel inspection must be thoroughly trained and experienced, and have the character and authority to withhold inspection certificates when required. The activity commander shall ensure all deficiencies found during the inspection process are promptly corrected.

b. The following are satisfactory methods for accomplishing inspections on boiler/unfired pressure vessels. The method selected by a particular activity shall be the method having the least annual cost.

(1) Locally administered contract.

(2) EFD-administered contract.

(3) Certified inspectors from a nearby Navy or Marine Corps activity.

(4) Activity inspectors. Activity personnel may become certified boiler inspectors by meeting the experience and training requirements listed.

(a) Experience. Three years experience is required in boiler construction, repair, operation, or inspection.

(b) Training. Suggest that prior to taking the EFD certification test, candidates should have taken and passed NAVFACENGCOM Technical Training Center (NTTC) Correspondence Course P-184 (Boiler Design Inspection). Candidates may take this course by applying directly to NTTC, Navy Public Works Center, Norfolk, VA 23511. All required training taken to become a certified boiler inspector will take place during working hours unless otherwise directed by the head of the facilities maintenance division.