ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeal of --	)	
	)	
Bath Iron Works Corp.	)	ASBCA No. 54544
	)	
Under Contract No. N00024-98-C-2306	)	

APPEARANCE FOR THE APPELLANT: Richard C. Johnson, Esq.
Smith Pachter McWhorter PLC
Vienna, VA

APPEARANCES FOR THE GOVERNMENT: Thomas N. Ledvina, Esq.
Navy Chief Trial Attorney
James T. DeLanoy, Esq.
Senior Trial Attorney

OPINION BY ADMINISTRATIVE JUDGE JAMES

Appellant Bath Iron Works Corp. (BIW) submitted a $1,341,129 claim under the captioned contract and timely appealed its denial by the contracting officer to this Board. Our 22 December 2005 decision sustained the appeal to the extent of $1,130,314.05. *Bath Iron Works Corp.*, ASBCA No. 54544, 06-1 BCA ¶ 33,158 at 164,308. On reconsideration, we increased the amount awarded to $1,171,855.39, and remanded to the parties the determination of whether, or to what extent, any CDA interest is due on such amount. 06-1 BCA ¶ 33,272 at 164,899. Familiarity with our foregoing decisions is assumed. Both parties appealed our decisions to the U. S. Court of Appeals for the Federal Circuit.

The court's October 2007 decision determined that the Board had misapplied the defective or non-conforming workmanship exclusion of the contract's insurance clause to the facts of this appeal by holding that the "post-hydrostatic test flush of DDG 90's FOFT piping by Kennebec River water" was a "defect" because that flush was "not a part of the vessel" and cannot be a "defect *in the vessel.*" *Winter v. Bath Iron Works Corp.*, 503 F.3d 1346, 1351 (Fed. Cir. 2007). The court stated further, 503 F.3d at 1351-52:

> Instead, the "defect in the vessel" in this case is the corroded DDG 90 FOFT piping. The only question is whether the corrosion was "due to (A) defective workmanship, or defective materials…performed by or furnished by the Contractor … or, (B) workmanship, or materials…performed by or furnished by the Contractor…

> which do(es) not conform to the requirements of the contract." If it was, the costs of inspection, repair, replacement, or renewal of the FOFT piping are properly borne by BIW.…
>
> Here the Board has already determined that the Kennebec River water flush of DDG 90's FOFT piping did not conform to the contract specification.… The question is whether the corrosion was "due to" the nonconforming flush.…
>
> Although the Navy argues that the board made findings of fact sufficient for this court to hold that the corrosion in the DDF[sic] 90 FOFT piping was due to the nonconforming brackish water flush, we disagree. In fact, the Board explicitly held that, while the nonconforming flush may have contributed to the corrosion of the FOFT piping,…it "was not necessarily the cause in fact or the proximate cause of the corrosion." … As such, we lack sufficient findings of fact to determine whether the inspection, repair, replacement, and renewal costs associated with the FOFT piping corrosion are subject to the defective/nonconforming workmanship exclusion to the contract's insurance clause. Accordingly, we vacate and remand this case to the board for further proceedings to determine whether the corrosion in the DDG 90's FOFT piping was "due to" the nonconforming flush of the piping.

Our ultimate finding 45 set forth below was the factual context that led to the Court's foregoing remand directions (06-1 BCA at 164,303):

> 45. …we further find that when the chromium oxide film on the surface of stainless steel types 304L for FOFT piping and 308L for FOFT welding was damaged, such surface was susceptible to pitting and crevice corrosion; BIW's DDG 90 FOFT arrangement, use of its land level transfer facility instead of an inclined way, and advancement of FOFT piping installation and flushing in the DDG 90 construction sequence led to its prolonged exposure to stagnant, brackish, Kennebec River water and sediment, and probable acceleration by MIC; and the convergence of the foregoing factors caused the unforeseen, increased incidence

> of corrosion in DDG 90's piping, compared with earlier DDGs constructed by BIW….

Pursuant to Board Rule 32, the parties have submitted legal briefs and reply briefs on the remand issue. The parties agree that the remand issue may be decided on the existing record without supplementation. The Board has revisited the record evidence and reviewed the parties' briefs to determine the remand issue: whether the corrosion in the DDG 90's FOFT piping was "due to" the nonconforming flush of the piping. We make the following additional findings, numbered to follow our 51 original findings.

ADDITIONAL FINDINGS OF FACT

52. The testimony and documents in the appeal record establish that the DDG 90 FOFT piping corroded due to Kennebec River water chlorides and bacteria that lay stagnant therein for seven months (Dr. D. Pope, app. supp. R4, tab 123A at 2, 4; Thielsch Engineering, R4, tab 17 at 918, 920-21; BIW briefing, app. supp. R4, tab 152A at 4, 6; BIW's M. Ludwig, tr. 2/47, 51; BIW's J. Jacobs, app. supp. R4, tab 155A at 1; tr. 2/215; respondent's E. Cummings, R4, tab 14 at 871; BIW's S. West and R. Curran, app. supp. R4, tab 212A at 4, 14; respondent's expert T. McNelley, R4, tab 375 at 1, 4 of 13; respondent's expert R. Hays, R4, tab 374 at 4-5, tr. 5/20).

53. Appellant's expert Susan Borenstein alone opined that "[t]he flush of piping systems in the [FOFT] on a DDG Class Ship with river water was not the single most important, immediate or direct cause of the corrosion" (ex. A-11 at 14), an opinion we reject as inconsistent with the preponderance of evidence summarized in finding 52.

54. From their prior experience in DDG class vessels, BIW operating engineers and management knew that use of Kennebec River water and sea water to flush the FOFT piping after hydrostatic testing caused no damage if BIW promptly flushed such river or sea water from the FOFT piping with fuel.

(a) On 20 October 1998 BIW flushed DDG 76 FOFT piping with "ocean water." According to BIW's operating engineer Daniel Pellerin, BIW loaded fuel onboard DDG 76 a short time after that flush, which would have removed any remaining seawater that was in the pipes. (App. supp. R4, tab 58A(a); tr. 2/21-22)

(b) On 2 May 2001 BIW flushed DDG 85 FOFT piping with Kennebec River water. Mr. C. Robbins, BIW's foreman of operating engineers, stated: "[U]nderstanding the system the way it works, and that system's exposure to…river water, it to me was a good idea if he flushed the system, went in and cleaned and inspected the tanks and we closed her up and loaded the fuel." (App. supp. R4, tab 58A(f); tr. 1/202-03)

(c) BIW's 6 June 2003 briefing to respondent stated (app. supp. R4, tab 152A at 6):

> • LLTF river water flush was done earlier in the [DDG 90] building process resulting in water becoming stagnant. Fuel…introduced after several months vice weeks.
>
> • Past practice was to hydro[statically test] with potable water on inclined ways, *then flush with river water just prior to introducing fuel* [emphasis added]

(d) Dr. McNelley testified (tr. 4/98, 123-24):

> Q [I]f…Bath had so constructed the ship that [the water didn't remain trapped], that would make a difference to you?
>
> A If the system had been dry, yes, the corrosion problem would not have arisen if it had been completely dry.
>
> Q Wouldn't it have made a difference if the system were not dry but the ship was fueled through this system shortly after the flush was performed?
>
> A Yes, the fuel, I believe, would have displaced the water.
>
> ….
>
> Q…at the time that BIW constructed ships on the incline[d] ways, BIW did not flush the FOFT piping on the inclined ways.… would you please state whether or not that would be a factor that you would take into consideration in a failure analysis?
>
> A Yes.… Apparently [flushing] took place after launch of the vessel…the ship also was in a level position when the flushing took place. To a certain extent this, which I was not aware of at the time of the report, changes the complexion in that the construction of the ship or its presence on the incline ways, historically, is not relevant to the corrosion problem at hand [on DDG 90].

(e) According to Mr. R. Hays (R4, tab 374 at 5):

> Q: Once river water was introduced into the [DDG 90 FOFT] piping system, how could the problem have been mitigated?
>
> A. Fortunately, corrosion like this is a process that takes time to cause damage. Once the river water had been introduced to the system, it should have been flushed either with fuel oil or at least with fresh water and then dried thoroughly. That would have prevented the problem.

Mr. Hays testified: "If the sea water had been flushed out immediately after it had been used…, then I don't believe this problem would have occurred" (tr. 5/20).

55. No expert witness said that the primary cause of DDG 90's piping corrosion was its arrangement or microbiologically influenced corrosion (MIC) (findings 40, 42, 44). BIW flushed DDGs prior to DDG 90 in a level position after their launch from inclined ways without experiencing FOFT piping corrosion (finding 54(d)), so the land level transfer of DDG 90 *per se* did not cause its piping corrosion.

56. Ms. Borenstein's statement that "it is unknown whether, if water from the flush had been immediately removed and the system gone into immediate operation, selected areas of corrosion may have occurred" (ex. A-11 at 14) is not correct, because BIW's operating engineers and management knew that prompt flushing of Kennebec River or sea water from the FOFT piping avoided the risk of corrosion (finding 54).

DECISION

Appellant argues that its use of the Kennebec River water flush was a contributing cause, but was not the "due to" or "but for" or "proximate cause" of DDG 90's FOFT piping corrosion (app. br. at 7-14). Respondent argues that the prolonged exposure of DDG 90 FOFT piping to the brackish Kennebec River water was the sole and proximate cause of that corrosion (gov't br. at 6-12). In the context of the Federal Circuit's discussion quoted above, 503 F.3d at 1351, and consistent with the parties' arguments, the Board interprets "due to" to mean the "cause in fact" or "proximate cause."

We find that the nonconforming Kennebec River water flush was the cause in fact and proximate cause of DDG 90 FOFT piping corrosion. But for such Kennebec River water, the DDG 90 FOFT piping corrosion would not have occurred. Moreover, before the 9 September 2002 flush of DDG 90 FOFT piping, BIW knew how to avoid such piping corrosion -- promptly re-flushing the piping by fuel (finding 54) – but failed to do

so, instead leaving the stagnant Kennebec River water for about seven months in the DDG 90 FOFT piping (findings 15, 18). Therefore, corrosion of such piping was due to BIW's nonconforming workmanship under the defective/nonconforming workmanship exclusion to the contract's Insurance clause. Accordingly, the costs of inspection, repair, replacement and renewal of the DDG 90 FOFT piping are properly borne by BIW. *Winter v. Bath Iron Works, supra*, 503 F.3d at 1351.

We deny the appeal.

Dated: 8 August 2008

DAVID W. JAMES, JR.
Administrative Judge
Armed Services Board
of Contract Appeals

I concur

I concur

MARK N. STEMPLER
Administrative Judge
Acting Chairman
Armed Services Board
of Contract Appeals

EUNICE W. THOMAS
Administrative Judge
Vice Chairman
Armed Services Board
of Contract Appeals

I certify that the foregoing is a true copy of the Opinion and Decision of the Armed Services Board of Contract Appeals in ASBCA No. 54544, Appeal of Bath Iron Works Corp., rendered in conformance with the Board's Charter.

Dated:

CATHERINE A. STANTON
Recorder, Armed Services
Board of Contract Appeals