



DEPARTMENT OF THE TREASURY
BUREAU OF ENGRAVING AND PRINTING
WASHINGTON, D.C. 20228

November 15, 2023

John Greenwald, Jr.
The Black Vault, Inc.
27305 W Live Oak Rd
Castaic, CA 91384
Sent via e-mail to: john@greenewald.com

RE: Final Response - FOIA Request No. 2023-BEP-00054
DCAA FOIA Case No. I-23-075-R
OIG Request No. 2022-FOIA-00419

Dear John Greenwald, Jr:

This is the final response of the U.S. Department of the Treasury, Bureau of Engraving and Printing to your Freedom of Information Act (FOIA) request to the U.S. Department of Treasury, Office of the Inspector General. We received your FOIA request and 82 responsive pages from the Defense Contract Audit Agency (DCAA) on August 03, 2023. You have requested access on behalf of the Black Vault, Inc. to the following records:

“[...] I respectfully request a copy of records (which includes videos/photos), electronic or otherwise, of the following: OIG Report Number OIG-20-043. This is labeled as a “Sensitive by Unclassified” and listed as connected to the Bureau of Engraving and Printing.” [...]”

Your request has been processed under the provisions of the FOIA, 5 U.S.C. § 552. We have considered the foreseeable harm standard when reviewing the responsive records and applying for FOIA exemptions.

After carefully considering these records, I am releasing eight pages in full and 71 pages in part. I am also withholding three pages in full. The withheld information is protected from disclosure under the FOIA pursuant to 5 U.S.C. § 552(b)(4) and 5 U.S.C. § 552(b)(6). FOIA Exemption 4 protects from disclosure “trade secrets and commercial or financial information obtained from a person that is privileged or confidential”. FOIA Exemption 6 pertains to information, which, if released, would constitute a clearly unwarranted invasion of the personal privacy of individuals.

In our letter August 16, 2023, we informed you that the BEP charges news media representatives for hard copy duplication over 100 pages. In this instance, fees for processing your request were below the threshold for requiring payment.

You have the right to file an administrative appeal of this decision within 90 calendar days from the date of this letter. By filing an appeal, you preserve your rights under FOIA and give the agency a chance to review and reconsider your request and the agency’s decision. Your appeal must be in writing, signed by you or your representative, and should contain the rationale for your appeal. Please also cite the FOIA reference number noted above. Your appeal should be addressed to:

FOIA Appeal

Director
Bureau of Engraving and Printing
14th & C Streets, SW
Washington, D.C. 20228

Your appeal must be postmarked within 90 calendar days from the date of this letter.

If you would like to discuss this response before filing an administrative appeal to attempt to resolve your dispute without going through the appeals process, you may contact our FOIA Public Liaison for assistance via phone at (202) 874-2500. A FOIA Public Liaison is a supervisory official to whom FOIA requesters can raise questions or concerns about the agency's FOIA process. FOIA Public Liaisons can explain agency records, suggest agency offices that may have responsive records, provide an estimated date of completion, and discuss how to reformulate and/or reduce the scope of requests in order to minimize fees and expedite processing time.

If the FOIA Public Liaison is unable to satisfactorily resolve your question or concern, the Office of Government Information Services (OGIS) also mediates disputes between FOIA requesters and federal agencies as a non-exclusive alternative to litigation. If you wish to contact OGIS, you may contact the agency directly by email at OGIS@nara.gov, by phone at (877) 684-6448, by fax at (202) 741-5769 or by mail at the address below:

Office of Government Information Services
National Archives and Records Administration
8601 Adelphi Road – OGIS
College Park, MD 20740-6001

Please note that contacting any agency official (including the Disclosure Officer, FOIA Public Liaison) and/or OGIS is not an alternative to filing an administrative appeal and does not stop the 90-day appeal clock.

You may reach me via telephone at 202-874-2500. Please reference FOIA case number FOIA Request No. 2023-BEP-00054 when contacting our office about this request.

Sincerely,

Laura Pintar
Government Information Specialist

Enclosure:
Request Description- John Greenewald, Jr.
2023-BEP-00054 Document – 80 pages

This document is made available through the declassification efforts
and research of John Greenewald, Jr., creator of:

The Black Vault



The Black Vault is the largest online Freedom of Information Act (FOIA) document clearinghouse in the world. The research efforts here are responsible for the declassification of hundreds of thousands of pages released by the U.S. Government & Military.

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DCAA

DEFENSE CONTRACT AUDIT AGENCY

Audit Report No. 1901-2020A21000003

Greater Connecticut Branch Office

130 Darlin Street

East Hartford, CT 06108-3234

August 26, 2020

Independent Audit Report on Proposed Amounts in Crane & Co., Inc.'s Price Proposal dated February 19, 2020

SPECIAL WARNING - *The contents of this audit report must not be released or disclosed, other than to those persons whose official duties require access in accordance with DoD regulations. This document may contain information exempt from mandatory disclosure under the Freedom of Information Act. Unauthorized disclosure of proprietary, contractor bid or proposal or source selection information may violate 18 U.S.C. 1905 and/or 41 U.S.C. 2102. Please see the Audit Report Distribution and Restrictions section of this report for further restrictions.*

~~FOR OFFICIAL USE ONLY~~



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EXECUTIVE SUMMARY

ABOUT CRANE & CO., INC.

Crane & Co., Inc., “Crane Currency”/(Crane), CAGE Code 16606, is a wholly owned subsidiary of Crane Co., a publically traded company. Crane was acquired by Crane Co. on January 10, 2018. Crane is a supplier of banknotes and highly engineered banknote security features for central banks all around the world. Crane’s headquarters is in Dalton, MA. Crane has domestic facilities in Massachusetts, New Hampshire, and Georgia, and international facilities in Malta and Sweden. Crane remains the predominant supplier of paper for use in U.S. currency. The final product is produced in (b)(4) while the (b)(4) for (b)(4) papers, is produced in (b)(4)

In FY 2019, Crane contributed sales of (b)(4) to the parent company, which included sales to the U.S. Government of \$ (b)(4). Crane employed (b)(4) people in FY 2019, and is headquartered at 30 South Street, Dalton, MA, 01126.

ABOUT THIS AUDIT

We performed this audit in response to (b)(6) Department of Treasury, Office of Inspector General, request dated May 27, 2020, to examine Crane’s firm-fixed-price proposal submitted in response to solicitation number BEP-RFP-2031ZA20R00003, Submission 1.

WHAT WE FOUND

Based on our examination we questioned (b)(4) of the (b)(4) proposed price based on Federal Acquisition Regulation (FAR), as well as identification of more current pricing data related to (b)(4)

(b)(4) We questioned costs in accordance with FAR for various reasons, including errors in the proposal, the contractor’s failure to support the proposed amounts, costs that were not associated with this proposal, and unreasonable methods to estimate costs.

REPORT ON PROPOSED AMOUNTS

We examined Crane & Co., Inc.'s (Crane's) proposed amounts in its firm fixed price proposal dated February 19, 2020, to determine if the proposed amounts comply with solicitation terms related to pricing as of August 19, 2020. The (b)(4) proposal is in response to RFP No. 2031ZA20R00003 for a Single-Award Indefinite-Delivery Indefinite-Quantity (IDIQ) Firm-Fixed-Price contract for currency paper and various security paper manufactured to meet U.S. Bureau of Engraving and Printing (BEP) specifications. Crane proposed a performance period of August 27, 2020 through August 26, 2030.

Management's Responsibility

Crane's management is responsible for the preparation of proposed amounts in compliance with the criteria cited above, including the design, implementation, and maintenance of internal control to prevent or detect and correct noncompliance due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on Crane's compliance based on our examination. We conducted our examination in accordance with Generally Accepted Government Auditing Standards (GAGAS).

GAGAS requires that we plan and perform the examination to obtain reasonable assurance about whether Crane's proposed amounts materially comply with the criteria cited above. An examination includes performing procedures to obtain evidence about whether Crane's proposed amounts materially comply with the criteria cited above. The nature, timing, and extent of the procedures selected depend on our professional judgment, including an assessment of the risks of material noncompliance, whether due to fraud or error, and involve examining evidence about the proposed amounts.

We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our audit opinion. Our examination does not provide a legal determination on Crane's compliance with the criteria cited above.

There will usually be differences between the forecasted and actual results because events and circumstances frequently do not occur as expected, and those differences may be material.

Basis for Qualified Opinion

Our examination disclosed proposed amounts that do not materially comply with solicitation terms related to pricing, as described below.

MATERIAL NONCOMPLIANCES

- We questioned (b)(4) of the proposed (b)(4) costs related to flax in accordance with FAR 31.201-3, Determining Reasonableness. We determined that the contractor significantly understated the baseline year, which results in unreasonably high escalation estimates for each successive contract year.
- We recommend an upward adjustment of (b)(4) to the proposed (b)(4) (b)(4) costs. The upward adjustment is due to a formulaic error within the proposal, in accordance with FAR 31.201-3, Determining Reasonableness.
- We questioned (b)(4) of the proposed (b)(4) based on various FAR requirements as follows: (i) (b)(4) in (b)(4) Expense in accordance with FAR 31.205-6(a)(2), Compensation for (b)(4) (ii) (b)(4) in (b)(4) costs in accordance with FAR 31.201-2, Determining Allowability and FAR 31.201-3, Determining Reasonableness; (iii) (b)(4) in (b)(4) (b)(4) expenses in accordance with FAR 31.201-2(d), Determining Allowability; (iv) (b)(4) of (b)(4) expenses in accordance with FAR 31.201-2(d), Determining Allowability; (v) (b)(4) in (b)(4) costs per FAR 31.201-2(d), Determining Allowability; (vi) (b)(4) in (b)(4) (b)(4) expenses per FAR 31.201-4, Determining Allocability. We made an upward adjustment of (b)(4) hours to the proposed (b)(4) allocation base due to a formulaic error in accordance with FAR 31.201-3, Determining Reasonableness. Of that amount (b)(4) if applicable to the U.S. Currency contract.
- We questioned (b)(4) of the proposed (b)(4) transportation costs, contained within proposed (b)(4) Other Direct Cost (ODC) costs, in accordance with FAR 31.201-3, Determining Reasonableness and FAR 31.201-2, Determining Allowability. Of the total, we questioned (b)(4) based on the number of shipments from Eastern and Western Facilities associated with unreasonable rounding of number of trips. Of the total, we questioned (b)(4) based on the contractor's failure to consider lower priced vendor quotations and the unreasonable escalation.
- We questioned (b)(4) of the proposed (b)(4) expenses associated with (b)(4); (b)(4) per FAR 31.201-2, Determining Allowability and FAR 31.201-4, Determining Allocability, because the (b)(4) costs were allocable to other Crane segments and (b)(4) per FAR 31.201-2, Determining Allowability and FAR 31.201-3, Determining Reasonableness because the (b)(4) costs were duplicated in the (b)(4) pool.
- We recommend an upward adjustment of (b)(4) to the proposed (b)(4) (b)(4), due to errors in the (b)(4)

calculations, in accordance with FAR 31.201-3, Determining Reasonableness. We recommend an upward adjustment of (b)(4) based on the contractor's error in identifying the correct (b)(4) allocation base for contract years 1 through 10 and an upward adjustment of (b)(4) based on the exclusion, in error, of (b)(4) associated with (b)(4).

Qualified Opinion

In our opinion, except for the noncompliances described above, Crane's proposed amounts comply, in all material respects, with solicitation terms related to pricing as of August 19, 2020.

EXIT CONFERENCE

We discussed factual matters with (b)(6) (b)(6) (b)(6) in an exit conference held on August 24, 2020. We did not provide the dollar impact of our findings. Contractor withheld comment-pending negotiations.

A summary schedule of proposed and questioned cost by paper type has been included in Appendix 1. The Government technical report has been included in Appendix 2.

We are available to discuss the results of audit and participate in negotiations at your convenience.

REPORT ON OTHER MATTERS

Our examination disclosed certain findings that do not affect the opinion above but we are required to report under GAGAS. We describe those findings in Report on Other Matters, Appendix 3, to this report.

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RESTRICTIONS

1. The contents of this audit report should not be released or disclosed, other than to those persons whose official duties require access in accordance with Department of Defense (DoD) Manual 5200.01, Volume 4 - DoD Information Security Program, February 2012, Enclosure 3, paragraph 2.d. This document may contain information exempt from mandatory disclosure under the Freedom of Information Act. Exemption 4, of the Freedom of Information Act, which addresses proprietary information, may apply.

It is not practical to identify during the conduct of the audit those elements of the data that are proprietary. You should make proprietary determinations in the event of an external request for access. Unauthorized disclosure of proprietary information violates Title 18 United States Code (U.S.C.) 93 §1905 and, if the information is contractor bid or proposal or source selection information, Title 41 U.S.C. 21 § 2102. Any person who unlawfully discloses such information is subject to penalties such as fines, imprisonment, and/or removal from office or employment.

2. Under the provisions of Title 32, Code of Federal Regulations, Part 290.7(b), the Defense Contract Audit Agency will refer any Freedom of Information Act requests for audit reports received to the cognizant contracting agency for determination as to releasability and a direct response to the requestor.
3. The Defense Contract Audit Agency has no objection to the release of this report, at the discretion of the contracting agency, to authorized representatives of Crane.
4. Do not release the Government technical evaluation report included as Appendix 2 of our report to Crane without approval of BEP.
5. Do not use the information contained in this audit report for purposes other than action on the subject of this audit without first discussing its applicability with the auditor.

STATEMENT OF PROPOSAL AND RESULTS OF AUDIT
Summary of Proposed for All Denominations

	Proposed											
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Notes
Millions of Sheets	(b)(4)											
Elements of Cost												2
(b)(4)												3
(b)(4)												4
Subtotal Cost												5
(b)(4)												6
Total Cost												7
Profit												8
Total Price												
Per Sheet												
(b)(4)												
Subtotal Cost												
(b)(4)												
Total Cost												
Profit												
Total Price												

*Minor differences due to rounding.

STATEMENT OF PROPOSAL AND RESULTS OF AUDIT
Summary of Questioned for All Denominations

	Questioned											
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Notes
Millions of Sheets	(b)(4)											
Elements of Cost	(b)(4)											
Subtotal Cost	(b)(4)											
Total Cost												
Profit												
Total Price												
Per Sheet	(b)(4)											
Subtotal Cost	(b)(4)											
Total Cost												
Profit												
Total Price												

*Minor differences due to rounding.

**STATEMENT OF PROPOSAL AND RESULTS OF AUDIT
Summary of Difference for All Denominations**

	Difference (Note 1)										Notes			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10		Total		
Millions of Sheets	(b)(4)													
Elements of Cost	(b)(4)													2
														3
														4
Subtotal Cost														5
	(b)(4)													6
Total Cost														7
Profit														8
Total Price														
Per Sheet	(b)(4)													
Subtotal Cost														
	(b)(4)													
Total Cost														
Profit														
Total Price														

*Minor differences due to rounding.

EXPLANATORY NOTES

1. DCAA presents the amounts in this column solely for the convenience of the procurement activity. They represent only the arithmetic difference between the amounts proposed and the related questioned costs. You should not consider the amounts to be audit approved, audit determined or recommended amounts. DCAA does not approve, determine or recommend prospective costs because the amounts depend partly on factors outside the realm of accounting expertise, such as opinions on technical and production matters.

2. (b)(4)

a. Summary of Conclusions:

We questioned (b)(4) of the proposed (b)(4) of (b)(4) costs. We questioned (b)(4) based on more current purchase pricing and (b)(4) based on questioned escalation factors. We questioned a portion of materials escalation factors due to the availability of more current escalation factors available from IHS Global Insight as well as an updated projection of the Consumer Price Index available from the Federal Reserve. Of the (b)(4) questioned escalation, we questioned (b)(4) related to flax in accordance with FAR 31.201-3, Determining Reasonableness. We determined that the contractor significantly understated the baseline year, which results in unreasonably high escalation estimates for each successive contract year.

b. Basis of Contractor's Cost:

Crane developed quantities for the bill of materials using an estimated volume of sheets per year. Crane used historical data, past contract information and forecasting processes to develop the total minimum volume of (b)(4) sheets per year. For each paper type, the bill of material determined the proposed cost per beater. Crane multiplied the total cost per beater by the number of beaters for each paper type based on the sheet volumes.

Proposed (b)(4) cost included costs for raw materials, such as cotton comber, flax, and process broke, as well as chemicals, such as (b)(4). In the bill of materials the (b)(4) (b)(4) had unit costs calculations which included the costs for the cotton, flax, chemicals, escalation, warehouse overhead costs as well as the freight-in costs. Proposed material unit costs were based either on FY 2019 plan or on actual costs for FY 2019 and beginning of FY 2020.

Crane utilized IHS Global Insight forecast data for its comber, flax, and chemical escalation factors. Crane applied the relevant proposed escalation factors to current year prices for material, comber, flax and chemicals. Other costs, like freight-in, were escalated based on projection of the Commercial Price Index issued by the Federal Reserve Bank of Cleveland.

The (b)(4) program does not generate enough broke to meet manufacturing specifications. As a result, Crane has to manufacture paper (without the (b)(4) specifically to increase the amount of broke material added to virgin fiber. Crane Operations determined the amount of manufactured broke based on BEP requirements. The proposed broke was based on the prior three year historical average of manufactured broke.

c. Audit Evaluation:

We calculated the questioned costs of (b)(4) related to updated current unit pricing. The remaining (b)(4) questioned costs of (b)(4) is due to questioned economic forecast data. We summarized our evaluation of the (b)(4) costs as follows:

	Total Dollars	Reference
Proposed	(b)(4)	
Questioned		
Due to Questioned Unit Prices		(1)
Due to Questioned Escalation Factors		(2)
Total Questioned		
Difference		

(1) Questioned Unit Prices:

We reviewed historical pricing data from FY 2019 and year to date (YTD) FY 2020; Crane’s price reasonableness determinations, if applicable; and, supplier invoices Crane provided in support for proposed (b)(4) item costs to ensure compliance with FAR 31.205-26, Material Costs, and FAR 31.201-3 Determining Reasonableness. We identified purchase history in FY 2020 that was more current then the proposed base unit prices. We calculated questioned unit prices based on average prices paid year to date through May 30, 2020, as summarized in the following table:

(b)(4)



- (a) (b)(4) Crane purchases cotton comber in a competitive market, from multiple suppliers. The (b)(4) proposed baseline unit price for comber represents average prices paid in 2019, orders received January 30, 2020, and orders issued as of February 5, 2020. The FY 2020 weighted average unit price from all of the suppliers at the end of May 2020 was (b)(4). The additional costs included in the base price are for chemicals (b)(4) (b)(4). We also included questioned unit prices for (b)(4) (see (k) below).

Other than the drop in current unit prices paid in FY 2020, we did not identify any additional adjustments to the proposed base unit price for comber. We calculated questioned unit price as follows:

Description	Proposed			Questioned		Difference	
	2020P Lbs/Cook	2019P Unit Cost	Base Cost	Unit Cost	Base Cost	Unit Cost	Base Cost
(b)(4)							

(b) (b)(4) Crane purchases cotton knits in a competitive market, from multiple suppliers. The proposed base price calculation of (b)(4) includes (b)(4) for the bleached knits, (b)(4) for (b)(4) processing fee, and remaining costs for warehouse overhead and freight-in. (b)(4) Pulp & Paper processes cotton knits from Crane’s suppliers. Most recent invoices show the average (b)(4) processing price is (b)(4) and is additive to the cotton knits price for the bill of materials.

In FY 2020, Crane has purchased the knits (b)(4) Fiber and (b)(4) the weighted average unit price for FY 2020 through end of May is (b)(4) which is lower than the proposed base unit price.

Other than the drop in current unit prices paid in FY 2020 compared to FY 2019, we did not identify any additional adjustments to the proposed base unit price for Bleached Knits (b)(4). We calculated questioned unit price as follows:

(b)(4)



(c) (b)(4) See explanation for adjustments made to (a) (b)(4) Comber above.

We calculated questioned unit price for (b)(4) as follows:

Page 17 of 82 to Page 19 of 82

Withheld pursuant to exemption

(b)(4)

of the Freedom of Information and Privacy Act

Other than the difference between the \$(b)(4) base price and the \$(b)(4) current price paid in FY 2020, we did not identify any additional adjustments to the proposed base unit price.

(2) Questioned Escalation Factors:

The questioned escalation factors reduce costs related to the forecasted Consumer Price Index, forecasted Euro to Dollar Exchange Rate, and forecasted costs related to cotton, flax, and chemicals. Our calculations of forecasted cotton prices resulted in lower costs in contract year 1 through contract year 5. In addition, our analysis resulted in an upward adjustments in costs related to chemicals, and cotton. Our calculations of forecasted cotton prices resulted in higher costs in contract year 6 through contract year 10, and higher forecasted prices in chemicals in contract year 7 through contract year 9. In regards to forecasting flax prices, we determined that the contractor significantly understated the baseline year, which resulted in unreasonably high escalation estimates for each successive contract year.

The below table summarizes the proposed and questioned escalation factors:

Proposed											
Escalation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Reference
(b)(4)											

(a) Comber: We obtained the most recent IHS Global Insight forecast for cotton prices. We used average of Quarter 2 2020 as the baseline because we calculated the base unit prices as average year to date as of May 2020 (see Unit Price notes above). We projected each year of material to the average of each contract year. For example, Year 1, we averaged Quarter 4 2020 through Quarter 3 2021. See note (e) below for Foreign Exchange (Fx). We calculated the questioned escalation factors as follows:

(b)(4)



- (b) Noils: We obtained the most recent IHS Global Insight forecast for flax. The contractor used the "trend function" to "smooth out" the forecast data. We questioned the use of this methodology. Most importantly, the contractor is "smoothing out" the "baseline year." The baseline year, also labeled "Year 0" is not an estimate; rather, it should be derived from actual data. Using an estimate for the baseline is not "reasonable." Essentially, the contractor took the data received from IHS Global Insight, then revised the data, understating the baseline year, resulting in significant overstatement of escalation from that point forward. In addition, the contractor used a "calendar year" to forecast flax costs. However, the contract year, which starts near the end of August 2020, is significantly different from the contract year. Lastly, the contractor used IHS Global Insight Forecast that was prepared in FY 2019.

Our adjusted forecasted escalation differs from the contractor's calculations in the following ways: (i) DCAA used IHS Global Insight data from Quarter 2 2020 as the baseline; (ii) DCAA used an IHS Global Insight forecast prepared in FY 2020; (iii) DCAA projected costs to the 'contract year (for example, for contract year one, we averaged Quarter 4 2020 through Quarter 3 2021)'; (iv) DCAA used a forecast currency exchange rates prepared in FY 2020; DCAA removed the impact of "trended escalation." We calculated the questioned escalation factors as well as the

(b)(4) due to questioned rate as follows:

(b)(4)



- (c) Chemicals: We obtained the most recent IHS Global Insight forecast for industrial chemical prices. We used average of Quarter 1 and Quarter 2 2020 as the baseline. DCAA's baseline is consistent with the base unit prices calculated using average costs through May 2020 (see Unit Price notes above). We projected each year of material to the average of each contract year. For example, Year 1, we averaged Quarter 4 2020 through Quarter 3 2021. The contractor used the same escalation factor for year 10 as year 9 because projections were not available. We calculated the questioned escalation as follows:

Proposed					Difference (Note 1)					Questioned
Time		Index	Esc		Time		Index	Esc		Esc
Qtr	Period		Average	%	Qtr	Period		Average	%	%
2019-Q2	Today	257	257		2019-Q2					
2020-Q1		262			2020-Q1	Year 0	242	225		
2020-Q2		262			2020-Q2		208			
2020-Q4		263			2020-Q4		212			
2021-Q1	Year 1	265	266	3.8%	2021-Q1	Year 1	219	223	-1.00%	4.78%
2021-Q2		267			226					
2021-Q3		269			233					
2021-Q4		271			2021-Q4		235			
2022-Q1	Year 2	275	275	3.5%	2022-Q1	Year 2	238	238	6.96%	-3.50%
2022-Q2		276			239					
2022-Q3		278			240					
2022-Q4		280			2022-Q4		242			
2023-Q1	Year 3	285	286	3.7%	2023-Q1	Year 3	244	245	2.74%	0.93%
2023-Q2		286			245					
2023-Q3		287			248					
2023-Q4		291			2023-Q4		251			
2024-Q1	Year 4	296	298	4.3%	2024-Q1	Year 4	255	256	4.62%	-0.37%
2024-Q2		299			258					
2024-Q3		301			260					
2024-Q4		305			2024-Q4		262			
2025-Q1	Year 5	309	309	3.9%	2025-Q1	Year 5	266	266	4.02%	-0.15%
2025-Q2		310			268					
2025-Q3		310			269					
2025-Q4		313			2025-Q4		272			
2026-Q1	Year 6	316	317	2.4%	2026-Q1	Year 6	275	276	3.60%	-1.20%
2026-Q2		317			278					
2026-Q3		318			279					
2026-Q4		321			2026-Q4		282			
2027-Q1	Year 7	326	326	3.0%	2027-Q1	Year 7	286	286	3.80%	-0.78%
2027-Q2		327			288					
2027-Q3		328			290					
2027-Q4		332			2027-Q4		292			
2028-Q1	Year 8	337	338	3.5%	2028-Q1	Year 8	296	297	3.70%	-0.19%
2028-Q2		339			299					
2028-Q3		341			301					

Proposed					Difference (Note 1)					Questioned
Time		Index	Esc		Time		Index	Esc		Esc
Qtr	Period		Average	%	Qtr	Period		Average	%	
2028-Q4		345			2028-Q4		304			
2029-Q1	Year 9	350	351	4.0%	2029-Q1	Year 9	307	308	3.74%	0.22%
2029-Q2		352			310					
2029-Q3		355			312					
2029-Q4		314								
2030-Q1	Year 10		351	4.0%	2030-Q1	Year 10	319	318	3.22%	0.75%
2030-Q2		321								
2030-Q3										

(d) CPI: We obtained updated projections from the Cleveland Federal Reserve from July 2020. The Cleveland Federal Reserve had a single projected annual rate of 1.34 percent. Crane used projections from December 2019.

(e) Foreign Exchange (Fx): We obtained the most recent IHS Global Insight forecast. We used average of Quarter 2 2020 as the baseline. DCAA’s baseline is consistent with the base unit prices calculated using average costs through May 2020 (see Unit Price notes above). We projected each year of material to the average of each contract year. For example, Year 1, we averaged Quarter 4 2020 through Quarter 3 2021. The contractor used the same escalation factor for year 10 as year 9 because projections were not available. We calculated the questioned escalation as follows:

Proposed					Difference (Note 1)					Questioned
USD					USD					
Contract		Per Euro	Mid-point	Impact to Cost	Contract		Per Euro	Mid-point	Impact to Cost	Impact to Cost
Qtr	Year	Index	Average	%	Qtr	Year	Index	Average	%	%
2019-Q2	Today	1.12	1.12		2019-Q2					
2020-Q2		1.10			2020-Q2	Year 0	1.10	1.10		
2020-Q4	Year 1	1.11	1.11	-0.4%	2020-Q4	Year 1	1.10	1.09	-0.34%	-0.08%
2021-Q1		1.11			1.09					
2021-Q2		1.12			1.09					
2021-Q3		1.12			1.09					
2021-Q4	Year 2	1.13	1.14	2.8%	2021-Q4	Year 2	1.09	1.09	0.04%	2.72%
2022-Q1		1.14			1.09					
2022-Q2		1.15			1.09					
2022-Q3		1.16			1.10					

Proposed				Difference (Note 1)				Questioned		
		USD				USD				
Contract	Year	Per Euro Index	Impact to Mid-point Average	Impact to Cost %	Contract	Year	Per Euro Index	Impact to Mid-point Average	Impact to Cost %	
Qtr	Year	Index	Average	%	Qtr	Year	Index	Average	%	
2022-Q4	Year 3	1.17	1.19	4.1%	2022-Q4	Year 3	1.10	1.11	1.30%	2.81%
2023-Q1		1.19			1.11					
2023-Q2		1.20			1.11					
2023-Q3		1.21			2023-Q3		1.11			
2023-Q4	Year 4	1.21	1.22	2.2%	2023-Q4	Year 4	1.12	1.12	1.43%	0.73%
2024-Q1		1.22			1.12					
2024-Q2		1.22			1.13					
2024-Q3		1.22			2024-Q3		1.13			
2024-Q4	Year 5	1.23	1.23	1.2%	2024-Q4	Year 5	1.13	1.14	1.27%	-0.11%
2025-Q1		1.23			1.14					
2025-Q2		1.23			1.14					
2025-Q3		1.24			2025-Q3		1.14			
2025-Q4	Year 6	1.24	1.24	0.9%	2025-Q4	Year 6	1.15	1.15	1.14%	-0.24%
2026-Q1		1.24			1.15					
2026-Q2		1.24			1.15					
2026-Q3		1.25			2026-Q3		1.16			
2026-Q4	Year 7	1.25	1.25	0.9%	2026-Q4	Year 7	1.16	1.16	1.13%	-0.28%
2027-Q1		1.25			1.16					
2027-Q2		1.25			1.16					
2027-Q3		1.26			2027-Q3		1.17			
2027-Q4	Year 8	1.26	1.26	0.8%	2027-Q4	Year 8	1.17	1.17	0.95%	-0.13%
2028-Q1		1.26			1.17					
2028-Q2		1.26			1.18					
2028-Q3		1.27			2028-Q3		1.18			
2028-Q4	Year 9	1.27	1.27	0.7%	2028-Q4	Year 9	1.18	1.19	0.96%	-0.22%
2029-Q1		1.27			1.18					
2029-Q2		1.27			1.19					
2029-Q3		1.28			2029-Q3		1.19			
2028-Q4	Year 10	1.28	1.27	0.7%	2028-Q4	Year 10	1.19	1.19	0.72%	0.02%
2029-Q1		1.19			1.19					
2029-Q2		1.20			1.20					
2029-Q3		1.20			1.20					

The following schedules shows the proposed and questioned escalation applied to the base material costs in each year by paper type:

Proposed and Questioned Escalation by Material

(b)(4)



Proposed and Questioned Escalation by Material

(b)(4)



Proposed and Questioned Escalation by Material

(b)(4)



Proposed and Questioned Escalation by Material

(b)(4)



3. Recommended Upward Adjustment to (b)(4) Costs

Summary of (b)(4)

Proposed	Dollars
(b)(4)	(b)(4)
Total Proposed	
Questioned	
Difference	

Table includes rounding

a. Summary of Conclusions:

Crane proposed (b)(4) for intercompany costs performed by (b)(4). We took no exception to proposed (b)(4) Materials of (b)(4) Overhead of (b)(4) Overhead of (b)(4) and (b)(4) Overhead of (b)(4).

We recommend an upward adjustment of (b)(4) to the proposed (b)(4) costs of (b)(4). The total upward adjustment is comprised of (b)(4) due to formulaic error within the proposal per FAR 31.201-3, Determining Reasonableness; (b)(4) due to more current corporate allocations; and, (b)(4) due to more current escalation factors applied to costs within the (b)(4) base.

b. Basis of Contractor's Cost:

Crane proposed intercompany work for (b)(4) manufactures the security threads used in the currency paper. (b)(4) were fully burdened and proposed at cost.

The number of sheets for different paper types was the basis for (b)(4) Bill of Material. The direct materials were proposed at the current price as of December 31, 2019. Direct material costs were escalated using Producer Price Index (PPI) for the out-years.

Process center overhead costs (b)(4) were proposed in the same manner as Crane's process center overhead costs. The process center overhead costs were escalated using Consumer Price Index (CPI); labor costs were escalated based on historical data. The process center costs were allocated over the total (b)(4) associated with the proposal.

(b)(4) pool combined (b)(4)
 (b)(4) Unallowable costs, such as all selling and marketing costs and bad debt costs, as well as estimated unallowable costs, such travel costs, were removed. (b)(4) proposed (b)(4) pool cost for contract year 1 based on its FY 2020 estimated annual plan. The contract year 1 costs were escalated using the relevant CPI rates by expense category for the out-years.

(b)(4) allocated allowable (b)(4) expenses to product lines based on total cost input (TCI). (b)(4) base contained overhead pools: (b)(4)
 (b)(4) as well as direct materials.

c. Audit Evaluation:

We examined (b)(4) We traced a selection of proposed materials to the underlying historical data. During our examination, we noted that the more current unit price for material (b)(4) was slightly higher than proposed. However, we determined that the overall cost was immaterial and accepted the per unit price as proposed. We did not identify any other differences between proposed and current (b)(4) unit prices.

We examined the proposed material escalations based on the PPI Index. We accepted the contractors' proposed escalation factor of 2.52 percent for Chemicals, and 1.78 percent for (b)(4) (b)(4) We recalculated the proposed per unit cost in the out-years using the contract mid-year for average purchases. We accepted the per unit prices in the out-years based on our recalculations.

We examined (b)(4) Overhead costs. We traced a selection of (b)(4) pool and base costs to underlying budgetary data. During our examination, we noted an input error within the proposed base amount. However, there was not a material impact resulting from the input error. Therefore, we took no exception to the proposed allocation base for the (b)(4) (b)(4)

In addition, we compared the proposed escalation factors to more current data from IHS Global Insight. Although there were differences, the use of more current escalation factors did not result in a significant difference. Therefore, we took no exception to the escalation factors applied in the (b)(4) process centers for the out-years. We accepted the contractors' proposed (b)(4) Overhead of (b)(4) Overhead of (b)(4) and (b)(4) Overhead of (b)(4)

(b)(4) Pool Costs:

We performed trend and comparison analysis of the (b)(4) costs using FY 2017 through FY 2020 year to date actuals. We did not identify any significant changes based on our trend analysis. In addition, we compared the FY 2020 Budgetary Plan to annualized FY 2020 year to date actuals. Based on our trend analysis and comparison analysis, we determined that historical data was a suitable basis for the budgetary plan.

During our examination, we determined that there was a formulaic error in the proposal that resulted in excluding all allowable (b)(4) costs from the total. We determined that Account (b)(4) was excluded, in error, from the proposed (b)(4) (b)(4) pool costs. During fieldwork, the contractor concurred that the amounts were excluded in error. We adjusted the proposed (b)(4) pool to include costs for Account (b)(4) (b)(4) in each contract year. The impact of the formulaic error in (b)(4) is calculated within the following table below:

Impact of Formulaic Error -- (b)(4) Costs			
Year	Proposed	Questioned/ (Upward Adj)	Difference
Year 1	(b)(4)		
Year 2			
Year 3			
Year 4			
Year 5			
Year 6			
Year 7			
Year 8			
Year 9			
Year 10			
Total			

In addition, we identified an error in the proposed depreciation costs. (b)(4) failed to include any depreciation in contract year 1 and incorrectly identified the annual amounts in contract years 2 through 10. During fieldwork, the contractor concurred that (b)(4) amounts were incorrect due to a formulaic error in the proposal. We adjusted the proposed (b)(4) (b)(4) pool to include the correct (b)(4) amounts in each proposed contract year. The impact of the formulaic error in (b)(4) is calculated within the following table below:

Impact of Formulaic Error -- Depreciation

Year	Proposed	Questioned/ (Upward Adj)	Difference
Year 1	(b)(4)		
Year 2			
Year 3			
Year 4			
Year 5			
Year 6			
Year 7			
Year 8			
Year 9			
Year 10			
Total			

We examined corporate allocations include in (b)(4) pool. We traced the corporate allocations proposed amounts to (b)(4) Allocation Support. The proposed corporate allocations did not reconcile. The (b)(4) costs were updated in May 2020 and represent more current data than the amounts recorded in the proposal. We adjusted the proposed (b)(4) pool to include the more current corporate allocation amounts.

We examined the escalation factors applied to the corporate allocations. We determined (b)(4) used the CPI to escalate corporate allocations in the out-years. We obtained more current Federal Reserve Bank Rates, which resulted in questioned escalation costs due to more current escalation factors. We calculated the impact of the more current escalation factors applied to the updated corporate allocation costs included in (b)(4) pool. The details are shown in the table below:

	Proposed Corporate Allocation in (b)(4) Pool										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Corporate Allocation Escalation Total Proposed	(b)(4)										
Corporate Allocation Escalation Total Questioned											
Corporate Allocation Escalation Total Difference											

Note- Totals contain rounding

Due to formulaic error within (b)(4) and current data within Corporate Allocation cost centers, we identified overall questioned (upward adjustment) (b)(4) pool cost of (b)(4). The table below identifies overall questioned (upward adjustment) within (b)(4) pool:

(b)(4)

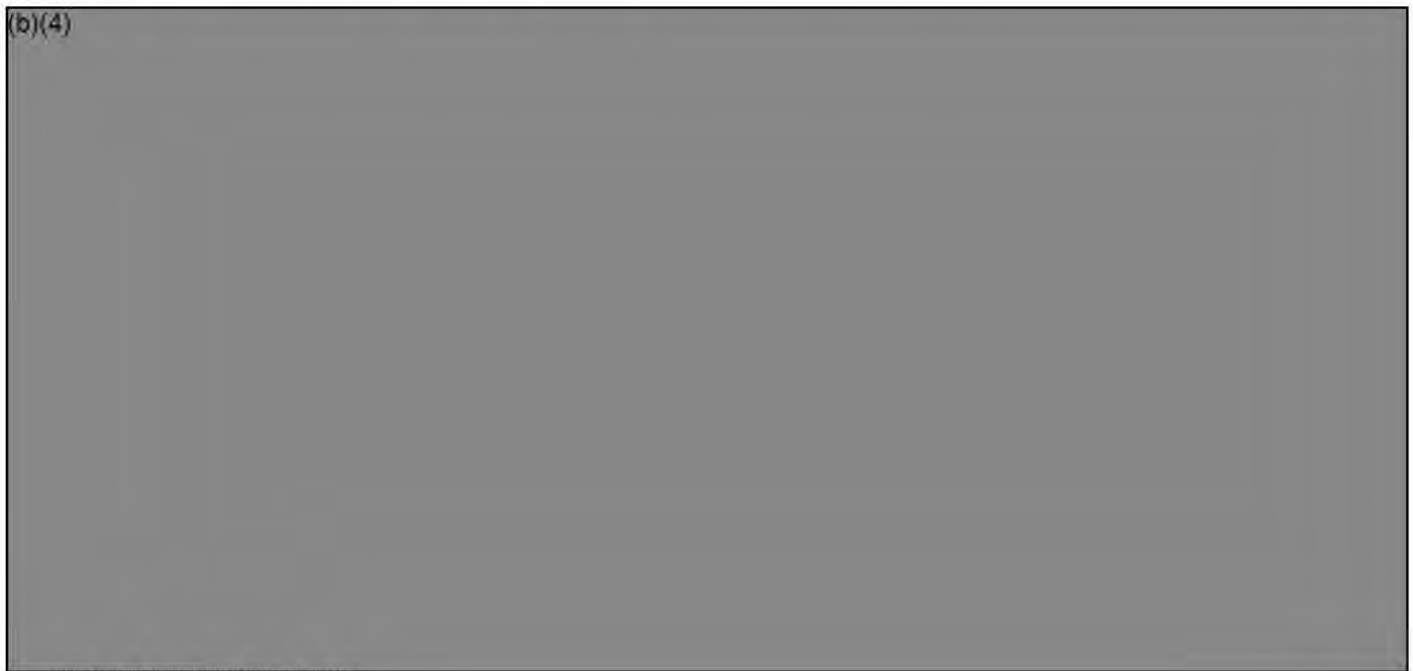


Table contains rounding from proposed amounts

(b)(4) Base Examination:

We performed trend and comparison analysis of the proposed (b)(4) allocation base with historical actuals in FYs 2018 and 2019 as well as budgeted FY 2020. We made adjustments for the reduced workload derived from the lower volume. We determined that the reduction in costs was consistent with the overall reduced volume. We took no exception to the components of the proposed (b)(4) allocation base for the base year.

(b)(4) applied the Consumer Price Index (CPI) as escalation to the following overhead categories: (b)(4) for proposed out-year costs. (b)(4) also applied the CPI as escalation to reductions in the (b)(4) base, such as (b)(4). We questioned the proposed CPI escalation factors due to more current Federal Reserve Bank rates.

When we applied more current Federal Reserve Bank Rates to the contractors' FY 2020 Budgetary Data within the (b)(4) base for all applicable overhead cost centers and base reductions, we questioned (b)(4) of the proposed (b)(4) allocation base. The table below identifies (b)(4) base differences:

(b)(4)



(b)(4)



(b)(4) Rate Calculation:

We recalculated the (b)(4) rate using the recommended upward adjustment to the (b)(4) pool of (b)(4) and the questioned costs in the (b)(4) base of (b)(4). We summarized the recommended upward adjustment to the (b)(4) rate resulting from the changes to the pool and base.

	Proposed (b)(4) Rate Calculation									
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Pool	(b)(4)									
Base										
Rate										
Pool										
Base										
Rate										
Pool										
Base										
Rate										

Note-Totals contains rounding

Based on questioned (upward adjustment) within (b)(4) Rate, we identified the following (b)(4) cost questioned (upward adjustment):

Contract Year	Total Questioned (b)(4) Costs	
	(b)(4) Base	Questioned Rate (b)(4) Questioned Costs
Year 1	(b)(4)	(b)(4)
Year 2	(b)(4)	(b)(4)
Year 3	(b)(4)	(b)(4)
Year 4	(b)(4)	(b)(4)
Year 5	(b)(4)	(b)(4)
Year 6	(b)(4)	(b)(4)
Year 7	(b)(4)	(b)(4)
Year 8	(b)(4)	(b)(4)
Year 9	(b)(4)	(b)(4)
Year 10	(b)(4)	(b)(4)
Total	(b)(4)	(b)(4)

4. (b)(4)

a. Summary of Conclusions:

We questioned (b)(4) of the proposed (b)(4) based on various FAR requirements. Of that amount, we questioned (i) (b)(4) in (b)(4) per FAR 31.205-6(a)(2), (b)(4); (ii) (b)(4) in Additional COGS expenses: (b)(4) in (b)(4) expenses per FAR 31.201-2, Determining Allowability and FAR 31.201-3, Determining Reasonableness due to duplicate costs; (b)(4) in (b)(4) (hardware/software) costs per FAR 31.201-2(d), Determining Allowability due to lack of adequate evidence; (b)(4) in (b)(4) costs per FAR 31.201-2(d), Determining Allowability due to lack of adequate evidence; (b)(4) in (b)(4) costs per FAR 31.201-2(d), Determining Allowability due to lack of adequate evidence; (iii) (b)(4) in (b)(4) expenses per FAR 31.201-4, Determining Allocability due to an inequitable distribution of (b)(4) and (iv) (b)(4) due to more current escalation factors based on IHS Global Insight.

In addition, we made an upward adjustment of (b)(4) hours to the proposed (b)(4) (b)(4) allocation base due to a formulaic error in accordance with FAR 31.201-3, Determining Reasonableness. The proposed allocation base did not consider (b)(4) in the calculation. Of that amount, (b)(4) hours is applicable to U.S. Currency (USC) paper types.

b. Basis of Contractor's Cost:

Crane proposed the following cost centers as part of the (b)(4)
(b)(4)

The proposed (b)(4) center rates are based on the contractor's FY 2020 Budget adjusted for escalation and activity levels for each of the ten contract year periods of performance.

Proposed hourly and salaried labor escalation is based on a four-year average of internal pay raises and escalation for healthcare was forecasted based on CPI for health insurance using data from FY 2010 to FY 2019. All other costs are escalated based on CPI as issued by the Federal Reserve Bank of Cleveland.

c. Audit Evaluation:

The (b)(4) pools contain expenses related to (b)(4)
(b)(4)

The (b)(4) allocation bases vary by pool and include (b)(4)
(b)(4)
(b)(4) as applicable.

We gained an understanding of the basis of the proposed manufacturing (b)(4) rates. We verified that the proposed indirect rates were consistent with the contractor's disclosed practices in accordance with 48 CFR 9904.401 (CAS 401), 48 CFR 9904.402 (CAS 402), and FAR 31.202/FAR 31.203(a). In addition, we verified that the proposed labor costs were consistent with the contractor's established and disclosed practices in accordance with FAR and CAS.

We reconciled the contractor's historical (b)(4) and current year to date costs to the contractor's books and records without exception. We compared the FY 2020 Budgetary data to FY 2019 actuals and June 2020 year to date actual annualized amounts. We evaluated the historical pools and allocation bases for four years (FY 2016 – FY 2019) using trend analysis and analyzed significant variances. We performed regression analysis to determine the strength of the potential relationship between the pool and base to utilize for projection and to determine reasonableness and requested explanations from the contractor regarding outliers (such as accounting changes, process changes, accruals/reversals, etc.).

We were unable to utilize regression as a basis for projection as we lacked comparable history due to a recent contractor reorganization. (b)(4)
 (b)(4) explained, "Firstly, starting in 2018 we reorganized our allocation of (b)(4)
 (b)(4)
 (b)(4) which are then distributed to the final rate generating cost centers within each mill. This change was made to better reflect the consumption of those resources as taking place across the entire campus, instead of just in (b)(4)";

We evaluated the proposed (b)(4) pool expense accounts by nomenclature and judgmentally selected proposed (b)(4) expenses for evaluation. We calculated the questioned cost associated with the questioned expenses and summarized the questioned costs in the table below:

(b)(4)	Proposed	Questioned	Difference (Note 1)	Reference
(b)(4)				

(i) Questioned (b)(4) Expense

We examined the proposed (b)(4) expense consisting of (b)(4)
 (b)(4)
 (b)(4) Crane proposed (b)(4) per hourly employee and (b)(4) per salaried employee for base wages.

We reviewed employee job descriptions and the detailed security budget. We searched the contractor's online website (<https://www.cranecurrency.com/careers/en-us/>) job search portal to determine if the proposed positions were advertised to the public. We evaluated the proposed labor against the salary ranges identified in the U.S. Bureau of Labor Statistics (BLS) for reasonableness.

We questioned the hourly wages of five papermaking staff – (b)(4)
 (b)(4) totaling (b)(4) in the (b)(4)
 pools based on a lower posted job rate of (b)(4) per hour. Of that amount, (b)(4) is applicable to the U.S. Currency (USC) contract based upon the allocation percentage of USC paper types manufactured in the (b)(4) center allocation base.

We questioned the hourly wages of (b)(4) totaling (b)(4) in the (b)(4) pools based on a lower posted job rate of (b)(4) per hour. Of that amount, (b)(4) is applicable to the proposed USC contract.

We questioned the hourly wages of (b)(4) totaling (b)(4) because Crane’s detailed (b)(4) budget identified the proposed staff as part-time working 28 hours per week for (b)(4) per hour. Of that amount, (b)(4) is applicable to the proposed USC contract.

Overall, we questioned contract Year 1 (b)(4) expense of (b)(4) in accordance with FAR 31.205-6(a)(2), Compensation for Personal Services. Per FAR 31.205-6(a)(2), “Compensation for each employee or job class of employees must be reasonable for the work performed.” Of that amount, (b)(4) is applicable to the proposed USC contract. We questioned (b)(4) for the entire period of performance; contract Year 1 through Year 10. Of that amount, (b)(4) is applicable to the proposed USC contract as shown in the table below:

Summary of Proposed and Questioned (b)(4) Expense

PROPOSED										
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)
QUESTIONED										
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)
DIFFERENCE										
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)

(ii) Questioned Additional (b)(4)

We examined the proposed Additional (b)(4) expense consisting of (b)(4) (b)(4) (b)(4)

We requested detailed support (descriptions, budgets, invoices, bids, quotes, cost estimates or analysis, and/or contracts) and the basis of the proposed Additional (b)(4) from Crane. We received a detailed budget for the (b)(4) (b)(6)

(b)(6) explained that, (b)(4) (b)(4)

(b)(4) Based on our examination of the (b)(4) budget, we identified (b)(4) expense for a (b)(4) (b)(4) per year and an OT System Administrator at (b)(4) per year. The proposed (b)(4) were duplicated staff positions identified as salaried (b)(4) per year) and hourly (b)(4) per year) labor in the (b)(4) (see (1) above). Therefore, we questioned total costs of \$ (b)(4) per FAR 31.201-

2, Determining Allowability and FAR 31.201-3, Determining Reasonableness. Of that amount, (b)(4) (Network Engineer (b)(4) + OT Systems Analyst (b)(4)) is applicable to the proposed USC contract. We questioned (b)(4) in (b)(4) expenses for the contract period of performance. Of that amount, (b)(4) is applicable to the proposed USC contract.

Crane did not provide sufficient evidence (such as (b)(4) invoices, quotes, etc.) for our evaluation of the remaining (b)(4). Therefore, we questioned (b)(4) in (b)(4) in accordance with FAR 31.201-2(d), Determining Allowability. Of that amount, (b)(4) is applicable to the proposed USC contract.

We analyzed the proposed amounts for (b)(4) in the cost proposal. (b)(6) explained that, "The (b)(4) (b)(4) supports the overall upkeep of our sprawling and aged campus. Our campus is over 200 year old and requires significant amounts of upkeep for painting, office environments, and lighting. These expenses represent maintenance of our facilities that go beyond what was included in our 2020 plan" Crane did not provide a detailed budget or support documentation for this expense. (b)(6) explained that, "This annual figure was an estimate based on recently completed painting and lighting improvements executed on our (b)(4) campus, each project of which was approx. (b)(4) With four mills and another half dozen support buildings we've estimated that we will execute a project each year of this magnitude to maintain and improve the esthetics of our site." As these costs lacked sufficient evidence, we questioned (b)(4) of (b)(4) expenses in accordance with FAR 31.201-2(d), Determining Allowability. Of that amount, (b)(4) is applicable to the USC contract.

We examined the detailed (b)(4) budget for (b)(4) Crane did not maintain documentation in the form of invoices, proposals, bids, or quotes to support the (b)(4) (b)(6) verbally explained that Crane previously discussed (b)(4) with BEP who seemed responsive to including the costs in the contract. As no meaningful evidence was provided, we question (b)(4) in (b)(4) costs per FAR 31.201-2(d), Determining Allowability. Of that amount, (b)(4) is applicable to the USC contract.

Overall, we questioned 100 percent of the (b)(4) expense, (b)(4) Of that amount, (b)(4) is applicable to the proposed USC contract as shown in the table below:

Summary of Proposed and Questioned (b)(4)

	PROPOSED										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
(b)(4)	[Redacted]										

(iii) Questioned (b)(4)

We examined the (b)(4) account number (b)(4). We identified a large increase in costs associated with this account during our comparative analysis by account.

The (b)(4) makes its own steam and the cost related to (b)(4) is accumulated in the (b)(4). Approximately (b)(4) percent of the (b)(4) contains the cost of labor (b)(4) and natural gas (b)(4). We verified underlying support for proposed labor cost in the basis of estimate to the FY 2019 Quarterly IRS Form 941 and 2019 W-2 Wage and Earnings Statement and reconciled to historical actuals without exception. We evaluated the reasonableness of the natural gas rate per Dekatherms (Dth) against the rates published by the U.S. Energy Information Administration for industrial entities in Massachusetts without exception.

In the cost proposal, Crane explains that, natural gas has two components,

(b)(4)

As Crane's explanations did not appear to account for the large increase we identified in the account, we performed an analysis of the (b)(4) pool using FY 2019 data and FY 2020 June year-to-date actuals annualized to determine how costs were allocated from (b)(4). Based on our analysis, we determined that in FY 2019, Crane allocated 50 percent of the (b)(4) and 50 percent to the (b)(4). Based on FY 2020 June year-to-date

actuals, we determined that approximately (b)(4) percent has been allocated to the (b)(4) and (b)(4) percent to the (b)(4)

We contacted Crane for an explanation. Per (b)(6) (b)(6) explained that (b)(4) (b)(4)

(b)(4) As the current (b)(4) percent (b)(4) (b)(4) is not supported in light of the reduction in sheet volumes, we question the allocation. Based on auditor judgment, we reduced the (b)(4) to FY 2019 levels (50/50) to protect the Government's interest. (Note FY 2019 is the underlying data that supports the FY 2020 Budget.)

We questioned (b)(4) in (b)(4) expenses per FAR 31.201-4, Determining Allocability. We calculated this amount by dividing the proposed Year 1 amount (b)(4) by 75 percent (b)(4) then dividing by 2 (b)(4). We subtracted the result from the proposed amount to determine questioned costs. We projected this amount to the out-years based on Crane's semi-variable escalation ranging from 1.60 percent to 1.78 percent. We questioned (b)(4) for the period of performance, Year 1 through Year 10. Of that amount, (b)(4) is applicable to the proposed USC contract as shown in the table below:

Summary of Proposed and Questioned (b)(4)

	PROPOSED										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
(b)(4)											

We requested technical assistance to evaluate the reasonableness of proposed yield rates, machine process rates (processing speed and pounds for sheeter), proposed conversion factors (M Weight), machine capability-processing hours (b)(4) (b)(4), maximum beater machine operating capacity, and pounds per beater by paper type. The technical report, prepared by the Department of the Treasury Bureau of Engraving and Printing on July 17, 2020, determined that the proposed factors were reasonable.

Crane proposed (b)(4) sheeter hours annually for USC paper types for the (b)(4) without considering sheeter yields in the calculation. We recalculated the sheeter hours using the applicable sheeter yields. The revised (b)(4) (b)(4)

(b)(4)

Calculation of (b)(4) Hours

	(a)	(b)	(a*b = c)	(d)	(e)	(f)	((c/d)/e)/f)
					<u>Sheeting</u>		<u>Revised</u>
<u>Paper Type</u>	<u># Sheets</u>	<u>M Weight %</u>	<u>Finished Pounds</u>	<u>Finish Yield</u>	<u>Rough Lbs Hr</u>	<u>Sheeter Yields</u>	<u>Sheeter Hrs</u>
(b)(4)							

*Minor differences due to rounding

We made an upward adjustment of (b)(4) hours to the (b)(4) allocation base. Of that amount (b)(4) is applicable to USC paper types as shown in the table below.

Proposed and Questioned
(b)(4) Allocation Base

<u>Paper Type</u>	<u>Proposed</u>	<u>Questioned</u>	<u>Difference</u>
(b)(4)			

This adjustment resulted in lower (b)(4) rates and questioned costs of (b)(4) which have been incorporated in the questioned (b)(4) amount of (b)(4) in the (b)(4) schedule.

(iv) Questioned Escalation Factors:

We questioned a portion of overhead escalation factors due to the availability of more current escalation factors available from IHS Global Insight as well as an updated projection of the Consumer Price Index available from the Federal Reserve.

Crane’s labor and healthcare escalation is based on historical data. Price and labor forecasts based solely on historical data are generally not reliable because such forecasts assume economic conditions will not change and the data does not consider further known or anticipated economic forces that could affect future price and labor economic data. Our calculations of forecasted labor and healthcare escalation resulted in lower overall escalation rates. Therefore, we questioned (b)(4) in escalation factors per FAR 31.201-3, Determining Reasonableness.

The below table summarizes the proposed and questioned escalation factors:

Proposed											
Escalation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Reference
Hourly Labor	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	(a)
Salaried Labor	3.34%	3.34%	3.34%	3.34%	3.34%	3.34%	3.34%	3.34%	3.34%	3.34%	(b)
Healthcare	9.36%	9.36%	9.36%	9.36%	9.36%	9.36%	9.36%	9.36%	9.36%	9.36%	(c)
CPI	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	1.71%	(d)
Questioned											
Escalation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Reference
Hourly Labor	1.25%	0.21%	0.00%	0.03%	0.12%	0.16%	0.18%	0.18%	0.19%	0.20%	(a)
Salaried Labor	2.20%	0.49%	-0.51%	-0.06%	-0.17%	-0.20%	-0.24%	-0.15%	-0.12%	-0.09%	(b)
Healthcare	4.35%	6.25%	6.07%	6.27%	6.16%	5.78%	5.87%	5.74%	5.78%	5.88%	(c)
CPI	0.37%	0.37%	0.37%	0.37%	0.37%	0.37%	0.37%	0.37%	0.37%	0.37%	(d)
Difference (Note 1)											
Escalation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Reference
Hourly Labor	1.75%	2.79%	3.00%	2.97%	2.88%	2.84%	2.82%	2.82%	2.81%	2.80%	(a)
Salaried Labor	1.14%	2.85%	3.85%	3.40%	3.51%	3.54%	3.58%	3.49%	3.46%	3.43%	(b)
Healthcare	5.01%	3.11%	3.29%	3.09%	3.20%	3.58%	3.49%	3.62%	3.58%	3.48%	(c)
CPI	1.34%	1.34%	1.34%	1.34%	1.34%	1.34%	1.34%	1.34%	1.34%	1.34%	(d)

- (a) Hourly Labor: We obtained the most recent IHS Global Insight forecast for manufacturing hourly wages. We used the average of Quarter 1, 2020 through Quarter 4, 2020 as the baseline because the Crane FY 2020 Plan year is the base year. We projected each year of labor to the mid-year of each contract year. For example, Year 1, we averaged Quarter 1, 2021 and Quarter 2, 2021.
- (b) Salaried Labor: We obtained the most recent IHS Global Insight forecast for average hourly computer programming services (IT) and physical engineering & life sciences wages. We weighted IT escalation at 25 percent and engineering at 75 percent. We used the average of Quarter 1, 2020 through Quarter 4, 2020 as the baseline because the Crane FY 2020 Plan year is the base year. We projected each year of labor to the mid-year of each contract year. For example, Year 1, we averaged Quarter 1, 2021 and Quarter 2, 2021.
- (c) Healthcare: We obtained the most recent IHS Global Insight forecast for group health insurance. We used the average of Quarter 1, 2020 through Quarter 4, 2020 as the baseline because the Crane FY 2020 Plan year is the base year. We

projected each year of labor to the mid-year of each contract year. For example, Year 1, we averaged Quarter 1, 2021 and Quarter 2, 2021.

- (d) CPI: We obtained updated projections from the Cleveland Federal Reserve from July 2020. The Cleveland Federal Reserve had a single projected annual rate of 1.34 percent. Crane used projections from December 2019.

5. Other Direct Costs (ODCs)

a. Summary of Conclusions:

We questioned a total of (b)(4) transportation costs of the proposed (b)(4) Other Direct Costs (ODC).

(i) We questioned proposed transportation cost of (b)(4) based on the number of shipments from Eastern and Western Facilities due to unreasonable rounding within the proposal. The contractor allocated (b)(4) total shipments from/to the Eastern and Western Facilities, instead of allocating the proposed and accepted (b)(4) total shipments. We questioned the transportation costs associated with the difference of (b)(4) shipments per year (b)(4) in accordance with FAR 31.201-3, Determining Reasonableness, and FAR 31.201-2, Determining Allowability.

(ii) We questioned proposed transportation cost of (b)(4) based on the contractor's failure to consider lower priced vendor quotations, and the difference within proposed versus recommended vendor quotation's escalation rates in accordance with FAR 31.201-3, Determining Reasonableness, and FAR 31.201-2, Determining Allowability.

(iii) We questioned (b)(4) based on more current data for fuel surcharge pricing obtained from the U.S. Energy Information Administration Gasoline and Diesel Fuel Update. Questioned costs were calculated by multiplying the questioned fuel surcharge by the proposed mileage and audited number of trips.

b. Basis of Contractor's Cost:

(i) Crane proposed a total of (b)(4) shipments annually. The total shipments include shipments from both Eastern facilities (ECF), (b)(4) to BEP, and Western facilities (WCF), Fort Worth to BEP. In order to calculate the number of annual shipments, (b)(4) (b)(4) Then Crane estimated the total number of shipments by dividing finished pounds by the average weight of each paper type in shipment. To estimate the allocation of trips between ECF and WCF, Crane used allocations of the (b)(4) Crane allocated the total number of shipments between ECF and WCF in the same percentage as (b)(4) (b)(4) Crane rounded up the number of trips for ECF and WCF when there were partial shipments based on the percentage allocations.

(ii) The contractor proposed the cost of shipments by location (b)(4) to BEP (ECF), Fort Worth to BEP (WCF), and (b)(4) based on vendor quotations. The vendor quotations covered a five year period, and the costs for the remaining years were proposed based on escalation applied to the vendor quotations. Crane used (b)(4) vendor quotation for the Western Facility (WCF) and (b)(4) vendor quotation for the Eastern Facility (ECF) and (b)(4) (b)(4) locations. Based on the vendor quoted shipment prices per location, Crane calculated the total transportation cost by multiplying prices by the number of shipments from WCF, ECF, and (b)(4) locations.

(iii) Crane proposed fuel surcharges based on its vendor agreements. Crane calculated total fuel surcharge by multiplying quotation price by the mileage for the Eastern and Western Facilities by the number of shipments from each delivery location. Crane used vendor quotations to identify fuel surcharge pricing per mile and PC*Miller Practical Routes to identify mileages for delivery locations. The contractor’s proposed fuel surcharge of (b)(4) for the base year and 1 percent estimated escalation factor for the out years. In addition, Crane estimated mileage at (b)(4) miles for the ECF route, round trip and (b)(4) miles for the WCF route.

c. Audit Evaluation:

(i) Questioned Due to Number of Trips

We re-calculated the total number of shipments by using finished pounds of shipment divided by sheet per shipment multiplied by the M weight. We compared our recalculations to the proposed number of shipments without exception; therefore, we accepted with the contractors' proposed total number of (b)(4) shipments per year. The proposed/accepted totals have been adjusted to remove rounding.

Proposed/Accepted Total Number of Shipments											
Sheet Types	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Total
(b)(4)											

We recalculated the percentage of shipments between the ECF and WCF locations using the same methodology as the contractor. We compared the recalculated percentages to the proposed percentages without exception. In addition, we analyzed four years of historical data and determined that FY 2018 actuals were representative of the overall allocation. We determined that the allocation percentages were reasonable. Please see the following table for proposed/accepted allocation percentages of (b)(4) shipments per year.

Sheet Types	Proposed/Accepted % Allocation for ECF	Proposed/Accepted % Allocation for WCF
(b)(4)		

When Crane applied the allocation percentages, it rounded partial shipments and proposed (b)(4) shipments from ECF and (b)(4) shipments from WCF, which totaled (b)(4) shipments per year.

We allocated the number of shipments using the allocation percentages identified above. However, we determined that the total (b)(4) shipments annually should be allocated as (b)(4) shipments from ECF and (b)(4) shipments from WCF. We calculated the difference between the proposed number of shipments from ECF and WCF locations per the agreed to proposed total number of shipments and the identified trip differences. A reasonable business person would anticipate that each shipment would not be allocated exactly in the same proportion of paper types, and that by slightly changing the quantities by paper type, there would still be full shipments. Therefore, it would be unreasonable to assume that all fractions would round up for additional shipments, in accordance with FAR 31.201-3(a). Amounts that are unreasonable are unallowable, in accordance with FAR 31.201-2(a)(1).

Questioned Total Number of Shipments from ECF Location											
Sheet Types	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Total
(b)(4)											

Questioned Total Number of Shipments from WCF Location											
Sheet Types	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Total
(b)(4)											

Please see following table for the contractor’s proposed prices that were used to calculate the questioned cost.

Proposed Prices											
Location	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Total
ECF	(b)(4)										
WCF											

We calculated the total questioned cost by multiplying the proposed price of each shipment by location by the questioned number of shipments for each location; (Questioned Number of Shipments from ECF Location * Proposed ECF Cost) + (Questioned Number of Shipments from WCF Location * Proposed WCF Cost). The table below contains rounding based on the allocation of the total questioned amounts based on the different types of paper.

Total Questioned Cost											
Sheet Type	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Total
(b)(4)	(b)(4)										

(ii) Questioned Cost due to Pricing and Escalation

We determined the contractor requested the vendor quotations for the same volume and locations from both vendors: (b)(4) and (b)(4). Crane used both vendor quotations interchangeably as a basis of its pricing. The contractor selected (b)(4) vendor quotation to determine the transportation cost for location WCF (Western Facility), and (b)(4) vendor quotation for ECF (Eastern Facility) and (b)(4) locations.

Based on our examination of the supporting evidence, we determined both vendor pricings were directly comparable. We compared the cost by location. We determined that (b)(4) was the lower priced vendor for all three locations (ECF, WCF, and (b)(4)). We asked the contractor for justification in selecting (b)(4) the higher priced contractor for the ECF and (b)(4) routes. The contractor responded that it was important to have two vendors but added that it intends to re-evaluate the distribution of business at the end of this year.

Vendor Quotations										
Location	(b)(4) Pricing					(b)(4) Pricing				
	2021	2022	2023	2024	2025	2021	2022	2023	2024	2025
ECF	(b)(4)									
WCF	(b)(4)									
(b)(4)	(b)(4)									

Based on the contractors' explanations and our examination of the supporting evidence, we determined that a prudent business person would select the best value when given two options. Because Crane did not identify the higher costs from (b)(4) as a better value, we determined that the (b)(4) prices were the most reasonable, in accordance with FAR 31.201-3, Determining Reasonableness.

(b)(4) is the lowest price provider for all three routes (ECF, WCF, and (b)(4)). (b)(4) Crane had selected the (b)(4) pricing for the WCF route but did not use the lowest price for the ECF and (b)(4) routes. Therefore, we questioned the difference between the rates as unreasonable, in accordance with FAR 31.201-3. Costs that are unreasonable are also unallowable, in accordance with FAR 31.201-2(a)(2). Even though Crane had selected (b)(4) vendor for the WCF, their pricing was based on the previous proposal quotation, which had a higher price than the current quotation, and we questioned the difference between the rates as unreasonable, in accordance with FAR 31.201-3. Costs that are unreasonable are also unallowable, in accordance with FAR 31.201-2(a)(2).

In addition to the proposed price examination, we examined proposed escalation factors. Even though, we found the contractors' method of using embedded escalation factors reasonable, we questioned escalation as (b)(4) used a different escalation amount for each location. We re-calculated the vendor (b)(4) embedded escalation factors for all locations, and identified the escalation factors like; WCF location 3 percent, ECF location 4 percent, and (b)(4) is 0.68 percent. We summarized the proposed and questioned price, adjusted for escalation, per shipment in the table below.

Proposed Prices & Escalation Factors per Shipment												
Location	Escalation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10	Total
ECF	(b)(4)											
WCF												
(b)(4)												

Questioned Prices & Escalation Factors per Shipment												
Location	Escalation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10	Total
ECF	(b)(4)											
WCF												
(b)(4)												

We calculated the overall questioned (b)(4) cost by multiplying the number of shipments by location by the questioned cost per shipment by location, as shown below.

Total Questioned Cost											
Location	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
ECF	(b)(4)										
WCF											
(b)(4)											
Total Questioned											

Crane proposed transportation cost (b)(4)
 (b)(4) In addition, we provided the costs questioned due to escalation and the costs questioned due to price. Details regarding the calculations below are available upon request.

Questioned Cost (ECF and WCF)											
Sheet Types	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total

(b)(4)



(iii) Questioned Cost per Fuel Surcharge

We examined historical data of actual fuel surcharges for FYs 2016 through 2020, to determine the reasonableness of the proposed mileages. We traced the proposed miles to the historical data without any issue. In addition based on the addresses of the (b)(4) location to ECF and WCF facilities, we checked the miles per Google Maps to complete our reasonableness analysis. Based on Google Maps, we determined the (b)(4) to BEP one way trip is in a range of (b)(4) miles. The vendor agreements for ECF shipments is based on round trip mileage; therefore, we determined the proposed (b)(4) mileage was reasonable for the ECF route. Based on the vendor agreements, the fuel surcharge for the WCF shipments was based on a one-way trip; we used Google Maps to determine the Fort Worth to BEP one-way trip is in a range of (b)(4) (b)(4) miles. Therefore, we determined the proposed (b)(4) mileage was reasonable for the WCF route. We took no exception to the proposed mileage used to calculate the fuel surcharge.

We examined the contractor’s proposed fuel surcharge price and determined that the contractor used the previous proposal price of \$0 (b) for the first year, and applied 1 percent escalation for the out years.

We used historical data to calculate the four-year average of fuel surcharge for FY’s 2016 through 2020. Based on actuals, we determined the average ECF route fuel surcharge was \$0 (b) and the average WCF route fuel surcharge was \$0 (b).

Based on the contractor’s vendor quotation the surcharge per mile is based on the fuel price per gallon. On August 4, 2020, we researched the Gasoline and Diesel Fuel Update through the U.S. Energy Information Administration to identify current U.S. Regular Gasoline Prices: the East Coast fuel price per gallon was \$2.517 as of August 3, 2020. Using the (b)(4) Fuel Surcharge Rate Chart, we identified the applicable fuel surcharge of \$0 (b) per mile based on the current U.S. Regular gasoline price. We took no exception to the proposed 1 percent escalation.

We summarized the proposed and questioned fuel surcharge over the life of the proposal.

Proposed Fuel Surcharge Factors										
Fuel Surcharge per mile	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)

Questioned Fuel Surcharge Factors										
Fuel Surcharge per mile	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)	(b)(4)

We calculated questioned cost for fuel surcharge by summing the ECF fuel surcharge costs and the WCF fuel surcharge costs. The questioned ECF fuel surcharge costs were calculated by multiplying the questioned fuel surcharge by the proposed and accepted ECF

mileage by the number of ECF shipments. Similarly, the questioned WCF fuel surcharge costs were calculated by multiplying the questioned fuel surcharge by the proposed and accepted WCF mileage by the number of WCF shipments. Questioned costs by paper type are shown in the table below.

Questioned Cost											
Sheet Types	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
(b)(4)											

6. (b)(4)

a. Summary of Conclusions:

We questioned (b)(4) of the proposed (b)(4) expenses associated with (b)(4) per FAR 31.201-4, Determining Allocability because the (b)(4) costs were allocable to other Crane Currency segments and (b)(4) per FAR 31.201-2, Determining Allowability and FAR 31.201-3, Determining Reasonableness because the (b)(4) costs were duplicated in the (b)(4) pool.

In addition, we adjusted the (b)(4) allocation base to incorporate questioned cost in the (b)(4) and (b)(4) elements.

b. Basis of Contractor's Cost:

The proposed (b)(4) rate is based on the contractor's Fiscal Year 2020 budgetary plan straight-lined at 25.89 percent for each of the ten 12-month periods of performance. The (b)(4) allocation base is the projected work for (b)(4) papers, (b)(4) Technology Division Materials, (b)(4) and (b)(4) for the years proposed. The contractor did not propose (b)(4) escalation for the contract period of performance. The (b)(4) expense, which is calculated by multiplying the (b)(4) rate by the U.S. Currency (USC) cost element, changes based on proposed volume. The increase varies between two and three percent.

c. Audit Evaluation:

The (b)(4) pool contains expenses related to (b)(4)
 (b)(4)
 (b)(4) The allocation base is Total Cost Input.

We gained an understanding of the basis of the proposed (b)(4) rate. We verified that the proposed indirect rates are consistent with the contractor's disclosed practices in accordance with 48 CFR 9904.401 (CAS 401), 48 CFR 9904.402 (CAS 402), and FAR 31.202/FAR 31.203(a).

We reconciled the contractor's historical (b)(4) costs and current year to date costs to the contractor's books and records without exception. We compared the FY 2020 Budgetary data to FY 2019 actuals and June 2020 year to date actual annualized amounts. We evaluated the historical (b)(4) pools and allocation bases for four years (FY 2016 through FY 2019) using trend analysis and analyzed significant variances.

We evaluated the proposed (b)(4) pool cost accounts by nomenclature and judgmentally selected expenses for examination.

We examined the contractor's proposed estimates for executive compensation (includes (b)(4)

(b)(4) We evaluated proposed executive compensation against the compensation cap in the Bipartisan Budget Act (BBA) of FY 2013, Public Law 113-67, which establishes compensation limitations for all employees on Government contracts awarded after June 24, 2014. We examined Crane's tax liability for FY 2015 through FY 2018 to determine the reasonableness of the cost estimate. We examined the contractor's (b)(4) budget including the proposed credit for the (b)(4) contract.

We obtained a walkthrough of the (b)(4) allocations. We compared the (b)(4) allocation to the (b)(4). In amounts identified in the proposed (b)(4) pool. The costs did not reconcile. (b)(6) explained that the difference "results from the fact that the proposal was submitted prior to our revised disclosure statement." Although the Corporate Home Office made changes in how costs are allocated to (b)(4) we determined that the total (b)(4) proposed less in (b)(4) overall.

We examined the contractor's proposed estimates for (b)(4) (including (b)(4)). (b)(4) (b)(4) is accumulated at the Corporate Home Office level and allocated to all Crane Currency segments (b)(4) and (b)(4) as a direct allocation or (b)(4) (b)(4)

We used trend analysis to evaluate historical (b)(4) cost trends and evaluated the proposed (b)(4) against the (b)(4) in the FY 2020 Boston Corporate Home Office Budget. Based on our examination, we determined that Crane proposed the entire pool of (b)(4) cost in its estimate. Thus, Crane is proposing (b)(4) costs that are allocable to other segments, as well as duplicating (b)(4) cost that has already been allocated through Corporate Allocations In. The table below identifies the Boston Corporate Home Office allocation by segment:

(b)(4)

We questioned (b)(4) in accordance with FAR 31.201-4, Determining Allocability, as these (b)(4) costs are allocable to (b)(4) and (b)(4) respectively. We questioned (b)(4) (all (b)(4) amounts excluding (b)(4) (b)(4) in accordance with FAR 31.201-2, Determining Allowability and FAR 31.201-3, Determining Reasonableness as these costs have been duplicated in the cost proposal. Overall, we questioned (b)(4) for Year 1 and (b)(4) for the entire period of performance. Of that amount, (b)(4) is applicable to the proposed USC contract for Year 1 and (b)(4) for the entire period of performance as shown in the table below:

Schedule of Proposed and Questioned (b)(4)

PROPOSED										
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
(b)(4)										

We incorporated the questioned costs identified in the other sections and adjusted the (b)(4) base. Overall, we questioned (b)(4) in the (b)(4) base as shown below:

	Total Dollars	Reference
Proposed	(b)(4)	
Questioned		Note 2
(b)(4)		Note 3
		Note 4
		Note 5
Total Questioned		

We calculated the questioned costs associated with the questioned (b)(4) expenses and summarized our questioned cost.

We questioned the following (b)(4) rates based upon our questioned (b)(4) pool expenses and adjustments to the (b)(4) allocation base:

(b)(4)	Proposed			Questioned			Difference		
	Pool	Base	Rate	Pool	Base	Rate	Pool	Base	Rate
Contract Year	(b)(4)								
Year 1	(b)(4)								
Year 2	(b)(4)								
Year 3	(b)(4)								
Year 4	(b)(4)								
Year 5	(b)(4)								
Year 6	(b)(4)								
Year 7	(b)(4)								
Year 8	(b)(4)								
Year 9	(b)(4)								
Year 10	(b)(4)								

*Minor differences due to rounding

7. (b)(4)

a. Summary of Conclusions:

Summary	Dollars	Ref
Proposed	(b)(4)	
Questioned, Due To		
More Current Treasury Rate		i
Error in Excluding (b)(4) Cost of Money		ii
Error in Hours Used to Calculate Factors		iii
Total Questioned		
Difference		

We questioned (b)(4) of the proposed (b)(4) (b)(4). Of the total questioned costs: (i) we questioned (b)(4) based on the current average Cost of Money treasury rate of 1.625 percent, applicable through December 2020; (ii) we recommend an upward adjustment of (b)(4) for (b)(4) associated with (b)(4) due to an error in the contractor's proposal, in accordance with FAR 31.201-3, Determining Reasonableness; and, (iii) we recommend an upward adjustment of (b)(4) based on the contractor's failure to identify the correct (b)(4) allocation bases for contract years 1 through 10.

b. Basis of Contractor's Cost:

The proposed (b)(4) was based on the total net book value (NBV) of current and future assets identified for each of the eleven (b)(4) Centers and (b)(4) (Research & Development) multiplied by the treasury rate.

The contractor used the U.S. Treasury Rate as of 2.375 percent for each of the proposed 12-month periods of performance.

Crane proposed (b)(4) associate with the following Cost Centers: (1) (b)(4) (b)(4) (2) (b)(4) (3) (b)(4) (4) (b)(4) (5) (b)(4) (b)(4) (6) (b)(4) (7) (b)(4) (8) (b)(4) (b)(4) (9) (b)(4) (10) (b)(4), and (11) (b)(4). Each (b)(4) center had its own allocation base used to allocate (b)(4).

Crane calculated the (b)(4) rates/factors using the Plan FY 2020 allocation bases for the process centers and (b)(4). Crane allocated (b)(4) costs to the proposal based on contract years 1 through 10 estimated process center proposal hours and proposed (b)(4) costs.

c. Audit Evaluation:

We obtained and documented our understanding of the basis of proposed (b)(4) through examination of the contractor provided calculations and discussions with contractor personnel. We verified that the contractor used Form CASB-CMF in its calculation of (b)(4) for the proposal. We verified that the period for the proposed rates coincided with the contractor’s fiscal year or historical rate period in accordance with 48 CFR 9904.406, Cost Accounting Period and FAR 31.203(g)), Indirect Costs. We compared the proposed amounts to the CASB Disclosure Statement Revision 9, effective May 1, 2020, to ensure that the proposed amounts were consistent with the contractor’s disclosed practices, in accordance with 48 CFR 9904.401, Consistency in Estimating, Accumulating and Reporting Costs, 48 CFR 9904.402, Consistency in Allocating Costs Incurred for the Same Purpose, FAR 31.202, Direct Costs and FAR 31.203(a)), Indirect Costs. We recalculated the proposed average net book value for the contract years without exception. We verified that (b)(4) was only proposed as an imputed cost, in compliance with 48 CFR 9904.401 and FAR 31.203(a)). We judgmentally selected assets recorded in Crane’s asset ledger. We validated the existence of the selected assets. We took no exception to the allowability and reasonableness of the asset values.

We recalculated the (b)(4) applicable to the proposal. We identified three issues based on our recalculations: (i) we determined that there was more current data related to the Treasury Rate used to compute (b)(4) (ii) we determined that the contractor’s spreadsheet omitted (b)(4) associated with (b)(4) in error; and (iii) we determined that the contractor was calculating the (b)(4) factors using the FY 2020 Plan bases rather than the contract year allocation bases for the process centers and (b)(4) “in error”.

(i) Questioned Costs Due to More Current Treasury Rate

We obtained the current Treasury Rate from www.fiscal.treasury.gov/prompt-payment. The Treasury Rates have been updated since the contractor submitted its proposal; we obtained the more current rate applicable to July 2020 through December 2020. The current annual average from January 2020 through June 2020 (2.125 percent) and July 2020 through December 2020 (1.125 percent), resulted in an average interest rate of 1.625 percent. We compared our computed treasury rates to Crane’s proposed treasury rates and document the differences. The contractor used the Treasury Rate of 2.375 percent, which is based on the average of interest rates from July 2019 through December 2019 (2.625 percent) and from January 2020 through June 2020 (2.125 percent). As shown in the table below, we questioned 0.750 percent based on the difference between the proposed average Treasury Rate and the more current average Treasury Rate.

Average Treasury Rate	
Proposed	2.375%
Questioned	<u>0.750%</u>
Difference	<u>1.625%</u>

We calculated the total (b)(4) for (b)(4) and each process center by multiplying the more current average Treasury Rate by the average net book value of assets allocated to (b)(4) and each process center. Based on these calculations (available upon request), we questioned (b)(4) of the proposed (b)(4)

(ii) Questioned Costs Due to Error Related to (b)(4)

As part of our examination of the proposed (b)(4) we noted that there was a formulaic error in the proposal that excluded the (b)(4) associated with (b)(4). During fieldwork, we discussed the exclusion with the contractor who concurred it was an error in the proposal. We applied the more current average Treasury Rate to the average net book value of assets to calculate the total (b)(4) for (b)(4). Then, we calculated the portion of the total (b)(4) associated with the proposal by multiplying the total (b)(4) for (b)(4) by the proposed (b)(4) allocation base divided by the total (b)(4) allocation base in each contract year. We recommend an upward adjustment of (b)(4) as errors are unreasonable, to include (b)(4) associated with (b)(4) as shown in the table below:

Contract Year	(b)(4) Associated with (b)(4)		Difference
	Proposed	Questioned	
Year 1	(b)(4)	(b)(4)	(b)(4)
Year 2	(b)(4)	(b)(4)	(b)(4)
Year 3	(b)(4)	(b)(4)	(b)(4)
Year 4	(b)(4)	(b)(4)	(b)(4)
Year 5	(b)(4)	(b)(4)	(b)(4)
Year 6	(b)(4)	(b)(4)	(b)(4)
Year 7	(b)(4)	(b)(4)	(b)(4)
Year 8	(b)(4)	(b)(4)	(b)(4)
Year 9	(b)(4)	(b)(4)	(b)(4)
Year 10	(b)(4)	(b)(4)	(b)(4)
Total	(b)(4)	(b)(4)	(b)(4)

(iii) Questioned Costs Due to Error Related to (b)(4) Allocation Bases

As part of our examination of the proposed (b)(4) we noted that the contractor used the Plan FY 2020 allocation bases to calculate the (b)(4) factors as opposed to the allocation bases specific to the contract years. As a result of the error in the total allocation base, we questioned (b)(4) hours for the process centers. In addition, we adjusted the allocation base for Process Center (b)(4) to reflect the audited allocation base as described in Note 4.

Process Center Bases

Process Center	Proposed	Questioned	Difference
(b)(4)			

We took no exception to the hours in the process centers used to identify (b)(4) costs associated with the proposal. We recalculated the cost of money factors using the contract year allocation bases. We applied the audited cost of money factors to the proposed hours in the allocation bases for the process centers. Based on these calculations (available upon request), we recommend an upward adjustment of (b)(4) due to an error in the process center hours, which is unreasonable in accordance with FAR 31.201-3.

8. Profit:

The results of audit include the proposed profit. None of the comments in this note should be construed as a profit recommendation, which would be beyond the scope of the audit and the role of the auditor. Profit is an area under consideration of the Contracting Officer. We have provided comment on the accuracy and distribution of the facilities capital employed among the asset categories; see Report on Other Matters in Appendix 3, for consideration.

STATEMENT OF PROPOSAL AND RESULTS OF AUDIT BY PAPER TYPE
Proposed for (b)(4)

	Proposed										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Millions of Sheets	(b)(4)										
Elements of Cost	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit	(b)(4)										
Total Price	(b)(4)										
Per Sheet	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit	(b)(4)										
Total Price	(b)(4)										

*Minor differences due to rounding.

STATEMENT OF PROPOSAL AND RESULTS OF AUDIT BY PAPER TYPE
Questioned for (b)(4)

	Questioned										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Millions of Sheets	(b)(4)										
Elements of Cost	(b)(4)										
Subtotal Cost											
Total Cost	(b)(4)										
Profit											
Total Price											
Per Sheet	(b)(4)										
Subtotal Cost											
Total Cost	(b)(4)										
Profit											
Total Price											

*Minor differences due to rounding.

STATEMENT OF PROPOSAL AND RESULTS OF AUDIT BY PAPER TYPE
Difference for (b)(4)

	Difference										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Millions of Sheets	(b)(4)										
Elements of Cost	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit											
Total Price											
Per Sheet	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit											
Total Price											

*Minor differences due to rounding.

STATEMENT OF PROPOSAL AND RESULTS OF AUDIT BY PAPER TYPE
Proposed for (b)(4)

	Proposed										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Millions of Sheets	(b)(4)										
Elements of Cost	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit	(b)(4)										
Total Price	(b)(4)										
Per Sheet	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit	(b)(4)										
Total Price	(b)(4)										

*Minor differences due to rounding.

STATEMENT OF PROPOSAL AND RESULTS OF AUDIT BY PAPER TYPE
Questioned for (b)(4)

	Questioned										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Millions of Sheets	(b)(4)										
Elements of Cost	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit											
Total Price											
Per Sheet	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit											
Total Price											

*Minor differences due to rounding.

STATEMENT OF PROPOSAL AND RESULTS OF AUDIT BY PAPER TYPE
Difference for (b)(4)

	Difference										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Millions of Sheets	(b)(4)										
Elements of Cost	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit	(b)(4)										
Total Price	(b)(4)										
Per Sheet	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit	(b)(4)										
Total Price	(b)(4)										

*Minor differences due to rounding.

STATEMENT OF PROPOSAL AND RESULTS OF AUDIT BY PAPER TYPE
Proposed for (b)(4)

	Proposed										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Millions of Sheets	(b)(4)										
Elements of Cost	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit	(b)(4)										
Total Price	(b)(4)										
Per Sheet	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit	(b)(4)										
Total Price	(b)(4)										

*Minor differences due to rounding.

STATEMENT OF PROPOSAL AND RESULTS OF AUDIT BY PAPER TYPE
Questioned for (b)(4)

	Questioned										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Millions of Sheets	(b)(4)										
Elements of Cost	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit	(b)(4)										
Total Price	(b)(4)										
Per Sheet	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit	(b)(4)										
Total Price	(b)(4)										

*Minor differences due to rounding.

STATEMENT OF PROPOSAL AND RESULTS OF AUDIT BY PAPER TYPE
Difference for (b)(4)

	Difference										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Millions of Sheets	(b)(4)										
Elements of Cost	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost											
Profit											
Total Price											
Per Sheet	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost											
Profit											
Total Price											

*Minor differences due to rounding.

STATEMENT OF PROPOSAL AND RESULTS OF AUDIT BY PAPER TYPE
Proposed for (b)(4)

	Proposed										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Millions of Sheets	(b)(4)										
Elements of Cost	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit											
Total Price											
Per Sheet	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit											
Total Price											

*Minor differences due to rounding.

STATEMENT OF PROPOSAL AND RESULTS OF AUDIT BY PAPER TYPE
Questioned for (b)(4)

	Questioned										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Millions of Sheets	(b)(4)										
Elements of Cost	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost											
Profit											
Total Price											
Per Sheet	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost											
Profit											
Total Price											

*Minor differences due to rounding.

STATEMENT OF PROPOSAL AND RESULTS OF AUDIT BY PAPER TYPE
Difference for (b)(4)

	Difference										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Millions of Sheets	(b)(4)										
Elements of Cost	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit	(b)(4)										
Total Price	(b)(4)										
Per Sheet	(b)(4)										
Subtotal Cost	(b)(4)										
Total Cost	(b)(4)										
Profit	(b)(4)										
Total Price	(b)(4)										

*Minor differences due to rounding.

GOVERNMENT TECHNICAL REPORT

Open the left side navigation pane and select the Paperclip icon to view the attachment; right click on the file to open.

REPORT ON OTHER MATTERS

Our examination disclosed certain findings that do not affect our audit opinion, but we are required to report under GAGAS, as follows:

1) Profit Objective Base – Weighted Guidelines Methodology

We recommend a decrease of (b)(4) to the profit objective over the life of the contract, in accordance with the Weighted Guidelines Methodology. Based on the weighted guidelines methodology for establishing the profit objective base, the profit objective should not include the impact of cost of money associated with land and buildings. We identified the cost of money associated with land and buildings, which Crane identified as (b)(4) within its proposal. We calculated the audited (b)(4) associated with the (b)(4) (b)(4). We multiplied the more current average Treasury Rate by the undistributed NBV applicable to the proposal, as shown in the table below:

<u>Year</u>	<u>Reduction in Profit Object Base</u>
1	(b)(4)
2	(b)(4)
3	(b)(4)
4	(b)(4)
5	(b)(4)
6	(b)(4)
7	(b)(4)
8	(b)(4)
9	(b)(4)
10	(b)(4)
Total	(b)(4)

2) (b)(4)

Our examination of (b)(4) identified inconsistencies in (b)(4) (b)(4) allocations to (b)(4) 48 CFR 9904.403-40(a)(1), Allocation of Home Office Expenses to Segments (CAS 403), requires that home office expenses be allocated directly to segments to the maximum extent possible. A noncompliance with 48 CFR 9904.403 could result in a significant cost impact on contract costs. We recommend an audit of 48 CFR 9904.403 of the (b)(4) to address any potential noncompliance.



DEPARTMENT OF THE TREASURY
BUREAU OF ENGRAVING AND PRINTING
WASHINGTON, D.C. 20228

July 17, 2020,
Amended August 4, 2020

**MEMORANDUM FOR: WILLIAM P. GAYNOR, BRANCH MANAGER
DEFENSE CONTRACT AUDIT AGENCY**

FROM: Jeffrey Peterman, Lead Technical Evaluator **Jeffrey M. Peterman** Digitally signed by Jeffrey M. Peterman
Date: 2020.08.04 17:11:15 -04'00'

Sandra Logan, Program Manager **Sandra D. Logan** Digitally signed by Sandra D. Logan
Date: 2020.08.04 17:08:58 -04'00'

SUBJECT: Request for Technical Assistance, dated June 17, 2020

RE: Crane & Co., Inc., Price Proposal submitted in response to
BEP Solicitation No. BEP-RFP-2031ZA20R00003

This technical report was prepared in response to the DCAA letter, dated June 17, 2020 requesting technical assistance from BEP to evaluate the reasonableness of items included in Crane's price proposal submitted in response to BEP Solicitation BEP-RFP-2031ZA20R00003.

The information contained in this report was obtained from Crane or based on technical knowledge within BEP.

The specialists responding to the request for technical assistance, Jeffrey Peterman and Sandra Logan, are qualified to provide this support based on their education and experience. Neither of whom have any interests or relationships that may create a threat to their objectivity in this matter.

Jeffrey Peterman has been the Contracting Officer's Representative for currency paper since 2003, having been previously the COR for currency inks and other materials for 12 years. He holds a Master's Degree and a Bachelor of Science degree in Chemistry from Western Michigan University, and a current FAC/COR Level III certification. His experience and knowledge of currency paper manufacturing stems from technical research, study, frequent site surveys, and managing supplier performance.

Sandra Logan has been with BEP since 2013 as the Supervisory Program Manager over the currency paper program. She has 40 years of experience in

managing manufacturing operations, of which 25 years were related to security product manufacturing.

The evaluation of the reasonableness of the items identified by DCAA follows.

- 1) Yield rates for (b)(4)
 - BEP has been previously provided the actual yield rates from Crane in conjunction with prior solicitations.
 - The proposed yield rates used by Crane are reasonable in comparison with the historical information previously requested from Crane for the years 2000 to 2014.

- 2) Impact on yield rates of any changes in (b)(4)
 - The (b)(4) do not have an effect on the overall yield rates.
 - The size of the (b)(4) is determined based on the (b)(4)
 - The (b)(4)

- 3) Machine processing rates (processing speed and pounds for sheeters)
 - The speeds in the Factors tab of the worksheet of Crane's price proposal for the sheeters are based on how Crane (b)(4) for each paper Type. The proposal sheeter speeds cited have been in use for (b)(4) (b)(4) paper since 2003 and since 2011 for (b)(4) paper. The figures represent the speeds (b)(4)
 - The maximum speed of the sheeters (b)(4) is (b)(4) meters per minute (mpm). This speed is the (b)(4) of these sheeters.
 - The sheeter speed (b)(4) mpm) in Crane's proposal for (b)(4) are reasonable because Crane (b)(4)
 - The sheeter speed (b)(4) mpm) in Crane's proposal for (b)(4) is reasonable. Sheets of (b)(4) paper are accumulated in 250-sheet piles (reams) on the sheeter, whereas all other paper Types are accumulated in 500-sheet reams. The smaller reams require added manual inspection and handling which limit the speed at which the sheeter can run. (b)(4) sheet stacks of (b)(4) paper built using reams of 250 sheets are more stable compared to stacks built using reams of 500 sheets resulting in fewer performance issues at BEP.

- 4) Proposed "M weight" Sheets to Pounds Conversion factors
 - The correct factors were used in the calculation of "M" weight (sheets to pounds conversion) for all paper Types in Crane's proposal.
 - Crane used a grammage value of (b)(4) grams per square meter (gsm) in the

calculation of the "M" weight for all paper Types. This is reasonable because the BEP specification for grammage for all paper Types is 90 ± 3 gsm.

5) Machine capability - processing hours (b)(4)

(b)(4)

- Based on the historical data previously provided by Crane for the years 2011 through 2014 and performance under the current contract, concerning the capacity and number of available processing hours in a given year for these machines, it is reasonable to expect that these machines can run at the proposed level. Crane has not (b)(4)
(b)(4)
- The machine capacities and processing hours identified in Crane's proposal are based on the annual quantity of (b)(4) sheets per year. Since the same machines have been used to support the supply of significantly greater annual quantities (e.g., (b)(4) sheets in 2013) of currency paper to BEP under prior contracts, it is reasonable to expect that these machines can run at the proposed level of activity of (b)(4) sheets.

6) Maximum operating capacity of beater machines

- The beater/pulper machine capacity at (b)(4)
(b)(4) respectively based on the historical data previously provided by Crane for the years 2011 through 2014. This capacity is for all fiber, cotton and linen, content less broke.
- The pounds of fiber values referenced in Crane's proposal are nominal.

7) Pounds per beater for (b)(4)

- The "Pounds per Beater" for (b)(4) are not the same because each paper machine location, (b)(4) has a different beater/pulper machine capacity and each paper Type has a different material make-up.
- The pounds of fiber values referenced in Crane's proposal are nominal. Each paper machine location has a different beater/pulper machine capacity and each paper Type has a different material make-up, therefore the "Pounds per Beater" vary by paper Type.
- Note: All of the materials that go into the paper manufacturing process are listed under "Pounds per Beater" in Crane's proposal. However, not all of these materials (b)(4)
(b)(4)
(b)(4) Thus, the total quantity of materials listed under "Pounds per Beater" for each paper Type in Crane's proposal does not equate to the number of pounds of material

processed in the beater/pulper machine but to the total quantity of materials used in the manufacture of the paper.

cc: Mr. Joseph Pishioneri, Contracting Officer, Bureau of Engraving and Printing