



**Memorandum from the Office of the Inspector General**

March 12, 2024

Laura J. Campbell

**REQUEST FOR FINAL ACTION – AUDIT 2023-17442 – EARLY PAYMENT DISCOUNTS  
ON VENDOR INVOICES FOLLOW-UP**

Attached is the subject final report for your review and final action. Your written comments, which addressed your management decision and actions planned or taken, have been included in the report. Please notify us when final action is complete. In accordance with the Inspector General Act of 1978, as amended, the Office of the Inspector General is required to report to Congress semiannually regarding audits that remain unresolved after 6 months from the date of report issuance.

If you have any questions, please contact Jennifer R. Bogus, Senior Auditor, at (865) 633-7372 or Rick C. Underwood, Director, Financial and Operational Audits, at (423) 785-4824. We appreciate the courtesy and cooperation received from your staff during the audit.

David P. Wheeler  
Assistant Inspector General  
(Audits and Evaluations)

JRB:KDS

Attachment

cc (Attachment):

TVA Board of Directors  
Angela S. Ballew  
Mary C. Corbitt  
Trevor L. Cothron  
Melanie J. Cross  
James R. Dalrymple  
Samuel P. Delk  
Buddy Eller  
David B. Fountain  
Denise D. Jones  
Andrew A. Long

Jeffrey J. Lyash  
Jill M. Matthews  
Jonathan Meadows  
Annette Moore  
Donald A. Moul  
Ronald R. Sanders II  
Allan G. Trotter  
Ben R. Wagner  
Kay W. Whittenburg  
Madeline L. Williams  
OIG File No. 2023-17442



Office of the Inspector General

---

# *Audit Report*

To the Vice President,  
Supply Chain

# **EARLY PAYMENT DISCOUNTS ON VENDOR INVOICES FOLLOW-UP**

---

Audit Team  
Jennifer R. Bogus  
Morgan A. Venturella

Audit 2023-17442  
March 12, 2024

## **TABLE OF CONTENTS**

EXECUTIVE SUMMARY ..... i

BACKGROUND..... 1

OBJECTIVE, SCOPE, AND METHODOLOGY ..... 2

FINDINGS ..... 3

    MANAGEMENT OF EARLY PAYMENT DISCOUNTS COULD BE IMPROVED ..... 3

        Understanding of Early Payment Discount Terms..... 5

        Management of Invoices Received After the Discount Period Expired ..... 6

        Management of Invoices Awaiting Material Receipt..... 6

    INTERNAL TRACKING COULD HELP IDENTIFY TRAINING NEEDS ..... 7

RECOMMENDATIONS ..... 7

## **APPENDIX**

MEMORANDUM DATED FEBRUARY 29, 2024, FROM LAURA J. CAMPBELL TO DAVID P. WHEELER



# Audit 2023-17442 – EARLY PAYMENT DISCOUNTS ON VENDOR INVOICES FOLLOW-UP

## EXECUTIVE SUMMARY

### Why the OIG Did This Audit

We included an audit of the Tennessee Valley Authority's (TVA) management of early payment discounts on vendor invoices in our annual audit plan as a follow-up to an audit of the same name,<sup>i</sup> where we reported TVA missed 19 percent of all early payment discount opportunities.

Our audit objective was to determine if early payment discounts are appropriately managed by TVA. Our audit scope included invoices from Supply Chain contracts and purchase orders with greater than \$1 million in spend in any one fiscal year from October 1, 2020, through September 30, 2023.

### What the OIG Found

We found TVA's management of early payment discounts could be improved as 18 percent of all available discounts, totaling \$826,252, were not taken during the audit period. Based on our analysis and interviews with relevant personnel, we determined some personnel were often unaware of important aspects of how to manage (1) early payment discount terms, (2) invoices sent by vendors after the discount period expired, and (3) invoices sent by vendors before materials are received. Additionally, we noted TVA Supply Chain maintains dashboards that could be used to help management identify training needs.

### What the OIG Recommends

We recommend the Vice President, Supply Chain, take actions to (1) provide personnel with additional information related to the management of early payment discounts, (2) require vendors to submit invoices within a defined number of days of the expected date of material receipt, and (3) consider using early payment discount data as an evaluation tool for performance and training needs.

### TVA Management's Comments

In response to our draft report, TVA management provided actions they plan to take to address each of our recommendations. See the Appendix for management's complete response.

### Auditor's Response

We agree with TVA management's planned actions.

<sup>i</sup> Audit Report 2017-15500, *Early Payment Discounts on Vendor Invoices*, dated May 30, 2018.

## **BACKGROUND**

We included an audit of the Tennessee Valley Authority's (TVA) management of early payment discounts on vendor invoices in our annual audit plan as a follow-up to an audit of the same name,<sup>1</sup> where we reported TVA missed 19 percent of all early payment discount opportunities.

TVA Standard Programs and Processes (SPP), TVA-SPP-13.009, *Accounts Payable Process*, and TVA-SPP-04.004, *Invoice Review and Approval*, document (1) the roles and responsibilities and financial systems associated with paying for goods and services purchased by TVA and (2) provide guidelines for review and approval of supplier invoices. Supply Chain contracting officers are responsible for defining the commercial terms of contracts and/or purchase orders, including invoicing requirements and pricing. When a new contract and/or purchase order is executed, the contracting officer enters the required information into TVA's Supply Chain information management system.<sup>2</sup> The information can include early payment discount terms, which are offered by some contractors for payments made prior to the due dates on invoices.

TVA's preferred method to receive invoices is through the Supplier Portal. Contractors can build and submit invoices directly in the portal, which also displays payment term options. This allows TVA to offer the contractor early payment on invoices in exchange for a discount on contracts that do not already have negotiated discounts. Accounts Payable personnel enter all invoices received through other methods, scanning and attaching copies of invoices. The field invoice approver (FIA), assigned by TVA's Supply Chain information management system, is responsible for the approval of nonreceiving<sup>3</sup> invoices and has the ability to reject the invoice for any needed corrections. Receiving invoices require the receipt of materials by the responsible TVA employee to be recorded in TVA's Supply Chain information management system. The entry of the receipt represents invoice approval.

According to the Prompt Payment Act, the period available to take advantage of an early payment discount is driven by the contractor's invoice date. Specifically, 31 United States Code Section 3904, *Limitations on Discount Payments*, states:

The head of an agency offered a discount by a business concern from an amount due under a contract for property or service in exchange for payment within a specified time may pay the discounted amount only if payment is made within the specified

---

<sup>1</sup> Audit Report 2017-15500, *Early Payment Discounts on Vendor Invoices*, dated May 30, 2018.

<sup>2</sup> TVA utilizes several systems to process/approve invoices; however, all invoices are authorized for payment using TVA's Supply Chain system or TVA's fuel management system. Our audit scope was limited to invoices approved in TVA's Supply Chain information management system.

<sup>3</sup> A receiving contract is one where goods, services, and/or materials are "received" by designated TVA employees who enter receipts, which, when electronically matched to the corresponding contract, serves as an approval of the invoice. A nonreceiving contract is one where the invoices are electronically scanned and routed to the FIA for review and approval.

time. For the purpose of the preceding sentence, the specified time shall be determined from the date of the invoice.

### **Internal Control**

Once invoice data is input into TVA's Supply Chain information management system, an e-mail notification, including any available discounts, is routed to the assigned FIA to review for either approval or rejection. When the notification is received, invoices for nonreceiving contracts/purchase orders are manually reviewed and approved by FIAs, or their designees, in TVA's Supply Chain information management system. According to TVA-SPP-04.004, *Invoice Review and Approval*, to avoid late payments, invoices should be approved or rejected by the FIA as soon as possible, but no later than 15 days following receipt of the approval request.

Invoices are automatically exported to TVA's payment processing system for payment once the approval process is complete. Invoices are exported to the payment processing system in "approved" status until they are automatically selected for payment based on payment method and due date. Invoices are paid according to the due date unless there are discount terms associated with early payment or management deems expedited payment is in TVA's best interest. If there are discount terms associated with early payment, the invoice is paid on the last day TVA is eligible to receive the discount. The payment processing system automatically calculates and records discounts on invoices from suppliers offering discounts and late payment penalties for invoices paid after the due date.

## **OBJECTIVE, SCOPE, AND METHODOLOGY**

Our audit objective was to determine if early payment discounts are appropriately managed by TVA. Our audit scope included invoices from Supply Chain contracts with greater than \$1 million in spending in any one fiscal year from October 1, 2020, through September 30, 2023. During this period, TVA Supply Chain had 651 contracts and 66 purchase orders with a total cost of approximately \$11.5 billion, that met these criteria. Of those, 69 contracts, which had a total cost of approximately \$361 million during the audit period, had early payment discounts included in the payment terms. Early payment discount rates ranged between 0.05 and 3 percent. To achieve our objective, we:

- Reviewed TVA policies and procedures effective during the audit period for administering and monitoring the invoice review, approval, and payment process, along with any other applicable information.
- Obtained an understanding of internal controls associated with early payment discounts. We identified the following three key controls and designed testing to determine the operating effectiveness of each control:
  - Invoices for nonreceiving contracts/purchase orders are manually reviewed and approved by FIAs, or their designees, in TVA's Supply Chain system.

- Approved invoices are transferred to TVA's payment processing system for payment.
- TVA's payment processing system automatically calculates and records discounts on invoices from suppliers offering discounts.
- Obtained data from Supply Chain's information management system for Supply Chain contracts and purchase orders with greater than \$1 million in spending in any one fiscal year from October 1, 2020, through September 30, 2023, to determine the population of contracts and purchase orders.
- Obtained invoice data from Supply Chain's information management system for the 69 contracts with early payment discount terms and performed data analysis to identify (1) the frequency and totals of lost versus taken early payment discounts and (2) potential reasons for lost early payment discounts.
- Performed data analysis to identify how many invoice approvers missed an early payment discount opportunity during the audit period.
- Interviewed the 12 (of 245) FIAs who had either the highest number of invoices with missed discounts or the greatest dollar value of missed discounts to determine reasons for lost early payment discounts. We also interviewed three contract technical stewards, two contracts managers, and two buyers to determine if any of the discounts were missed due to reasons associated with the vendors.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

## **FINDINGS**

We determined TVA's management of early payment discounts could be improved as 18 percent of all available discounts were not taken during the audit period, totaling \$826,252. Based on our analysis and interviews with relevant personnel, we determined some personnel were often unaware of important aspects of how to manage (1) early payment discount terms, (2) invoices sent by vendors after the discount period expired, and (3) invoices sent by vendors before materials are received. Additionally, we noted TVA Supply Chain maintains dashboards that could be used to help management identify training needs.

### **MANAGEMENT OF EARLY PAYMENT DISCOUNTS COULD BE IMPROVED**

We determined early payment discounts were not taken on 21 percent of invoices, accounting for 18 percent of the early payment discount dollars available during

the audit period, totaling \$826,252. This was a one percentage point improvement over the results of our previous audit, as shown in Figure 1 below.

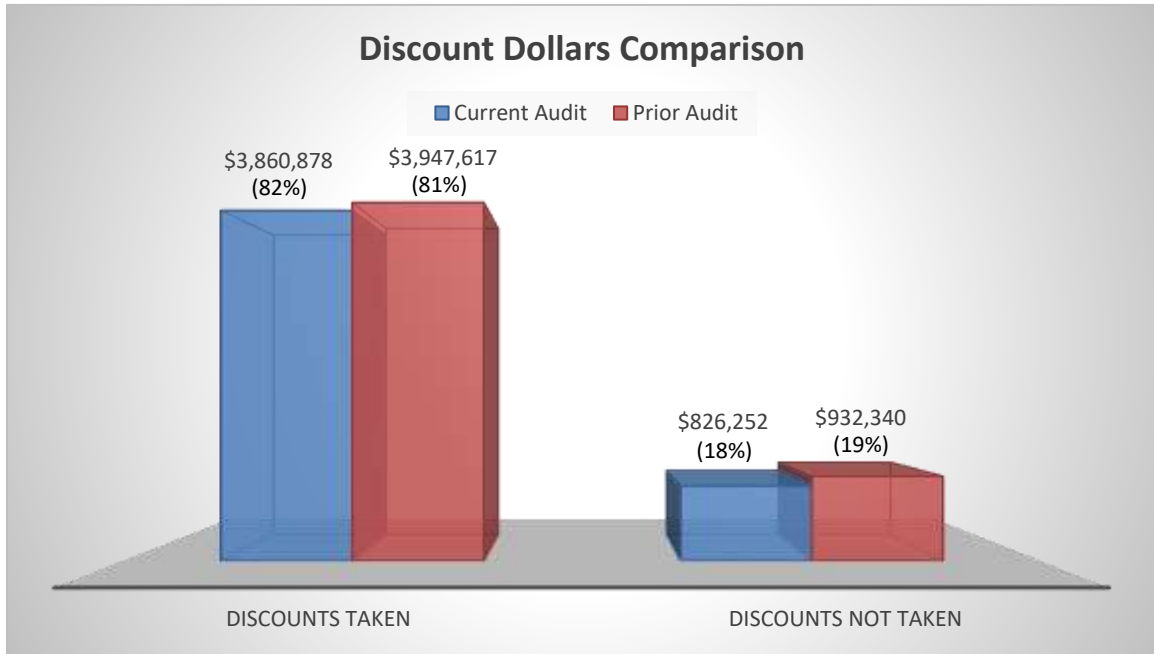


Figure 1

As shown in Table 1, 3,992 (71 percent) of the invoices where early payment discounts were missed were not approved fast enough to pay by the discount date. Additionally, 28 percent of invoices with missed discounts were received after the discount period expired.

Potential Causes of Missed Early Payment Discounts				
Potential Lost Reason	No. of Invoices	Percentage of Invoices	Discount Total	Dollar Percentage
<b>Approved Late*</b>	<b>3,992</b>	<b>71%</b>	<b>\$653,510</b>	<b>79%</b>
<i>less than 2 days to pay</i>	3,677	65%	611,544	74%
<i>less than 5 days to pay (holiday, weekend, batch processing)</i>	315	6%	41,966	5%
<b>Received Late</b>	<b>1,584</b>	<b>28%</b>	<b>159,874</b>	<b>19%</b>
<b>Entered Late</b>	<b>45</b>	<b>&lt;1%</b>	<b>9,557</b>	<b>1%</b>
<b>Paid Late</b>	<b>38</b>	<b>&lt;1%</b>	<b>3,311</b>	<b>&lt;1%</b>
<b>Total</b>	<b>5,659</b>		<b>\$826,252</b>	

\* According to TVA-SPP-13.009, the due date for electronic payments is two business days in the future, meaning the invoice must be approved at least two days before the early payment discount due date to obtain the discount.

Table 1

The audit population of all paid invoices was approved by 475 different approvers. As shown in Figure 2 on the following page, 245 (52 percent) missed available early payment discount opportunities.



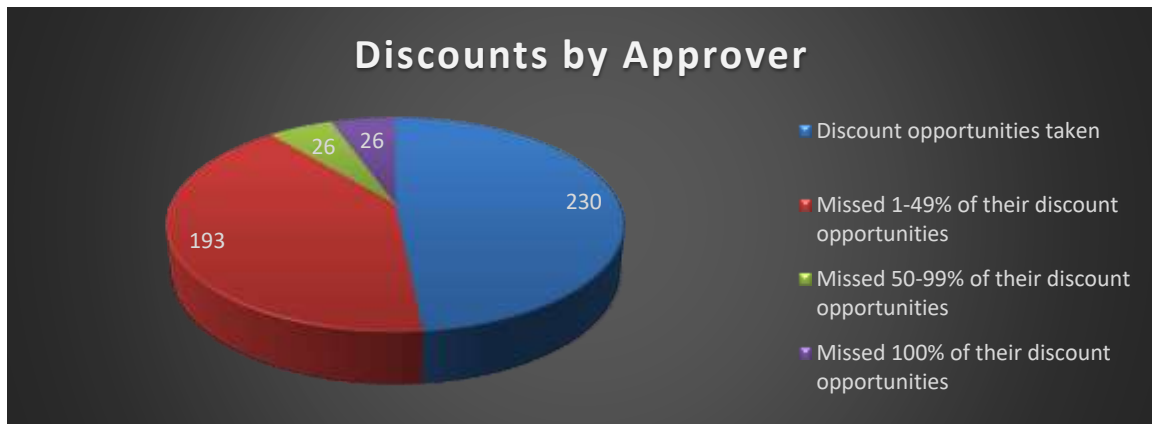


Figure 2

We determined the management of early payment discounts could be improved if personnel were more aware of how to manage (1) early payment discount terms, (2) invoices sent by vendors before materials are received, and (3) invoices sent by vendors after the discount period expired.

### Understanding of Early Payment Discount Terms

During interviews with FIAs, along with additional discussions with contract managers, buyers, and contract technical stewards, we determined personnel were often unaware of important aspects of how to manage early payment discounts. Below is a list of the most commonly discussed reasons for missed early payment discounts:

- The FIAs did not know what the early payment discount terms meant or were not trained about them.
- The FIAs were unclear on what date “started the clock” on the early payment discount period
- The FIAs were not sure if the invoice dates were updated when rejected invoices were resubmitted.
- The FIAs pick one day a week to approve invoices or wait until there are a few invoices to approve at once.

We noted TVA-SPP-04.004, *Invoice Review and Approval*, does not discuss early payment discounts, other than one line on the FIA checklist in the appendix; however, the checklist specifically states it is not required for use by the FIA. We also noted the FIA training, required for all FIAs, had only the following statement in a 69-slide training:

Many contracts provide for a discount if an invoice is paid early. Approving invoices in a timely manner is also important to ensure TVA can obtain these discounts, which can amount to approximately \$1.7 million in annual savings to TVA.

One of the findings in the previous audit was that the interviewed FIAs stated they were not aware when invoices had an early payment discount. This finding had two recommendations: (1) include early payment discount information in the e-mail notifications sent from TVA's Supply Chain information management system and (2) consider modifications in TVA's Supply Chain information management system that would identify invoices with early payment discounts for FIAs. In response to the two recommendations, TVA management updated the e-mail notification from TVA's Supply Chain information management system to include the payment terms. However, during our FIA interviews, we were often told invoice notification e-mails are ignored because they (1) receive too many e-mails from TVA's Supply Chain information management system, and (2) are aware they have invoices to approve, but do not approve them at the moment the notification is received.

### **Management of Invoices Received after the Discount Period Expired**

Another finding from the previous audit was 35 percent of the invoices with missed discounts were received after the discount period expired. According to TVA management's response from the previous audit, all contract managers reminded contractors, with early payment discount language in their contracts, to submit invoices promptly after their invoice is developed and dated. As shown in Table 1, we determined 28 percent of invoices with missed discounts had been received after the discount period expired, which is an improvement over the previous 35 percent, but still accounts for a large amount of missed discounts.

When payment terms include an early payment discount, requiring vendors to submit invoices within a certain amount of days of the invoice date would allow TVA the opportunity to take advantage of more discounts. Additionally, requiring vendors update the invoice date on resubmitted/corrected invoices should also allow TVA the opportunity to take advantage of more discounts. This would be consistent with TVA-SPP-04.004, *Invoice Review and Approval*, that states "for purpose of prompt payment, the payment time frame does not start until an error free invoice is received." While the vendor should provide an invoice with a current date, the FIA is responsible for ensuring an accurate invoice during the approval process, that includes the invoice date, reinforcing the need for FIAs to ensure accurate invoice dates.

### **Management of Invoices Awaiting Material Receipt**

We determined some vendors sent invoices for receiving contracts ahead of materials awaiting receipt. As shown in Table 1, 3,677 invoices were approved with two days or less before the discount period expired. Of those, 1,961 invoices were automatically approved by TVA's Supply Chain information management system, indicating the invoice was for receipt of material, with missed discounts totaling \$136,379. For receiving contracts, once the invoice has been entered, TVA's Supply Chain management system periodically scans the system to find a matching receipt. When the system finds a receipt, it automatically approves the invoice. The average number of days these invoices waited for approval was 26, with 10 percent of them taking longer than 50 days. If the vendor sends the invoice before the material is received, the early payment discount window can

quickly diminish. In order for TVA to receive early payment discounts, TVA could reject invoices sent before materials are received and request the invoices be resubmitted with a proper date.

The FIA's timely invoice approval is the main control for TVA to obtain early payment discounts. The control design and implementation is sufficient, but cannot be fully effective if the FIAs are not aware of all their responsibilities. An overall understanding of how the process works is critical for the FIAs to ensure TVA takes advantage of any possible early payment discount. If TVA management includes more robust early payment discount information in TVA-SPP-04.004 and FIA training materials, specifically the importance of invoice dates and the need to approve invoices with available discounts in a timely manner, the FIAs should better understand how to manage early payment discounts.

## **INTERNAL TRACKING COULD HELP IDENTIFY TRAINING NEEDS**

TVA Supply Chain maintains two dashboards for internal tracking of early payment discounts. The dashboards contain detailed information of totals of available early payment discounts and lost dollar opportunities related to any missed discounts in a chosen fiscal year. This missed early payment discount data could be used as an evaluation tool to identify FIAs who require additional training.

## **RECOMMENDATIONS**

We recommend the Vice President, Supply Chain, take the following actions:

1. Include detailed information related to the management of early payment discounts in both TVA-SPP-04.004 and in the required FIA training.

**TVA Management's Comments** – In response to our draft report, TVA management stated Supply Chain will add detailed information related to the management of early payment discounts to FIA training in TVA's Learning Management System and TVA-SPP-04.044, *Invoice Review and Approval*. See Appendix for TVA management's complete response.

**Auditor's Response** – We agree with TVA management's planned actions.

2. Require contractors to submit invoices within a defined number of days of the expected date of material receipt.

**TVA Management's Comments** – In response to our draft report, TVA management stated Supply Chain will work with the Terms and Conditions

Authoring Tool (TCAT) team<sup>4</sup> to determine if an additional term/clause is needed to address the timeliness between invoice submission and expected date of material receipt. If an additional term/clause is needed, Supply Chain will work with the TCAT team to implement such language into future contracts. See Appendix for TVA management's complete response.

**Auditor's Response** – We agree with TVA management's planned actions.

3. Consider using early payment discount data as an evaluation tool for FIA performance and training needs.

**TVA Management's Comments** – In response to our draft report, TVA management stated Supply Chain does not own the FIA process or its performance but will make suggestions to Accounts Payable for an evaluation tool to measure performance and to communicate any additional training needs, as needed. See Appendix for TVA management's complete response.

**Auditor's Response** – We agree with TVA management's planned actions.

---

<sup>4</sup> The TCAT is a web-based tool used to develop/create contracts and other procurement documents. The TCAT team meets to discuss modifications, deletions, and additions to the repository of clauses.

February 29, 2024

David P. Wheeler, WT 2C-K

RESPONSE TO REQUEST FOR COMMENTS – AUDIT 2023-17442 – EARLY PAYMENT  
DISCOUNTS ON VENDOR INVOICES FOLLOW-UP.

Reference: OIG Memorandum dated February 2, 2024

In accordance with the references above, Supply Chain has reviewed the Draft Report and will be assessing the process for improvement opportunities.

**INCLUDE DETAILED INFORMATION RELATED TO THE MANAGEMENT OF EARLY  
PAYMENT DISCOUNTS IN BOTH TVA-SPP-04.004 AND IN THE REQUIRED FIA TRAINING**

Supply Chain will add detailed information related to the management of early payment discounts to FIA Training in LMS and TVA-SPP-04.004 Invoice Review and Approval.

**REQUIRE CONTRACTORS TO SUBMIT INVOICES WITHIN A DEFINED NUMBER OF DAYS  
OF THE EXPECTED DATE OF MATERIAL RECEIPT**

Supply Chain will work with the TCAT Team to determine if an additional term/clause is needed to address the timeliness between invoice submission and expected date of material receipt. If an additional term/clause is needed, Supply Chain will work with the TCAT team to implement such language into future contracts.

**CONSIDER USING EARLY PAYMENT DISCOUNTED DATA AS AN EVALUATION TOOL  
FOR PERFORMANCE AND TRAINING NEEDS**

Supply Chain does not own the FIA process or its performance but will make suggestions to Accounts Payable for an evaluation tool to measure performance and to communicate any additional training needs, as needed.

We would like to thank Jennifer R. Bogus, Rick Underwood and the OIG staff for their professionalism in conducting this audit. If you have further questions, please contact Angela S. Ballew at [asballew@tva.gov](mailto:asballew@tva.gov) or 423-240-7574.



Laura J. Campbell  
Vice President  
Supply Chain

JCM:MDW  
Attachment  
cc: See page 2

David P. Wheeler  
Page 2  
February 29, 2024

cc (Attachment): Concurrence Sheet  
Angela S. Ballew, BR 5A-C  
Mary C. Corbitt, MR 3K-C  
Trevor L. Cothron, BR 5A-C  
Melanie J. Cross, BR 5C-C  
James R. Dalrymple, BR 4D-C  
Samuel P. Delk, BR 5A-C  
David B. Fountain, WT 6A-K  
Jonathan C. Meadows, BR 5A-C  
Annette L. Moore, BR 5A-C  
Donald A. Moul, WT 7B-K  
Ronald R. Sanders II, MR 5E-C  
Allan G. Trotter, BR 5A-C  
Kay W. Whittenburg, MR 3A-C