

Electronic Signatures on Approval Documents for Construction Contracts

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Abstract

The current process for approvals by management for bid lists and for contract awards of Engineering and Construction Services (E&CS) Projects for Southern Company requires manual signatures. This delays the process due to the printing and time required to hand sign the documents, usually two to four weeks. The proposed method which is the basis of this project in order to accelerate this process is to create and use an electronic approval form requiring digital signatures versus hand signature. The electronic forms were prepared for digital signatures and tested by one project team at one operating plant in Georgia, part of the service territory of Southern Company. The results of using the new electronic forms requiring digital signatures yielded routing times of less than one week which supports the objective of the project to reduce the routing time using a new electronic process. There were some gaps that needed to be addressed with the new electronic forms to meet internal company procedures. Solutions to these gaps were implemented while testing the new electronic process. The new electronic signature process will continue to be tested and improved in order to implement in the future.

Introduction

The process for the Bid List Approval Letter begins at the construction site where it is generated. The document is then routed through management levels required which include the following signatures:

- Construction Manager
- Project Manager
- Labor Project Manager
- Regional General Manager
- Vice President of Projects and Construction
- Vice President of Operations Services

The approvals required are signed off manually and routed through email. After going through all of the signatures required, the document is sent to the Supply Chain management representative and the bid package is released to the approved bidders on the Bid List Approval Letter. The process for the Summary of Award Recommendation is similar. The only difference is that the Vice President of Operations Services does not need to sign and the SVP and SPO of Georgia Power would need to sign if the project contract value is over \$5 million. The problem with the current process is that the Bid List Approval Letters and Summary of Award Recommendations needed for all construction contracts normally takes 2-4 weeks to be approved, see Table 1. The approval of these documents requires hand signatures on documents from management and executive management levels within Southern Company. The objective of this project is to reduce the amount of time required to reach approval for both documents (Bid List Approval Letters and Summary of Award Letters) to less than 1 week per document being routed.

Table 1
Historical Data of Routing Time for Bid List and Summary of Award Documents in 2017

Type	Project	Start Date	Finish Date	Days Routing
Bid List	Bowen Site Development	12/11/17	12/18/17	7
Bid List	Scherer Field Erected Tanks	11/2/17	11/20/17	18
Bid List	Yates Cofferdam	8/23/17	8/31/17	8
Bid List	Yates Permanent Pipe	5/30/17	6/19/17	20
Summary of Award	Yates Permanent Pipe	8/25/17	9/11/17	17
Bid List	Bowen Borrow Area	12/11/17	12/18/17	7
Summary of Award	Bowen WM Deep Foundations	11/2/17	11/16/17	14
Summary of Award	Bowen Third Dewatering Belt	8/8/17	9/11/17	34
Bid List	Bowen Bottom Ash Foundations	2/9/17	2/22/17	13
Summary of Award	Yates Water Treatment Pipe	5/26/17	6/6/17	11
			Average Days Routing	15

Methodology

- Prepare the pdf version of the Bid List Approval Template and the Summary of Award documents for digital signature.
- Create an online user interface that could be accessed from any device to approve documents in the routing process.
- Test the new electronic signature process and verify that the time spent routing for approvals is less than 1 week per document.

Figure 1 shows the SDS Document Approver and Submitter Process using the SDS (Southern Digital Signature) Tool. Table 2 shows the milestone schedule of activities to be completed.

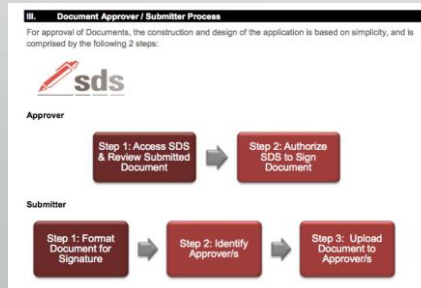


Figure 1
SDS Document Approver and Submitter Process

Table 2
Milestone Schedule

Description	Date
Address Spacing Requirements for Information Boxes on Electronic Approval Forms	3/1/18
Attach Supporting Documentation to Electronic Approval Forms	3/9/18
Route Electronic Approval Forms in less than 1 week	3/30/18

Results

The testing of the new electronic process for the Bid List Approval Letters and the Summary of Award Recommendations commenced with one project team in Georgia (Plant Bowen Construction). In a recent test sample Bid List Approval Letter in Figure 2, the electronic approval document routed for seven days. Table 3 shows the data gathered from four recent test electronic documents where the average days spent routing is seven days. This is an improvement when compared to the average days spent routing in the historical data of fifteen days to the new average of seven days.

Table 3
New Testing Data of Time Spent Routing for Electronic Approval Documents in 2018

Type	Project	Start Date	Finish Date	Days Routing
Bid List	Bowen UG Pipe	1/26/18	2/2/18	7
Bid List	Bowen WM Electrical	1/22/18	2/2/18	11
Summary of Award	Bowen WM Storm Drain	1/24/18	1/30/18	6
Summary of Award	Bowen East Borrow	2/2/18	2/5/18	3
			Average Days Routing	7

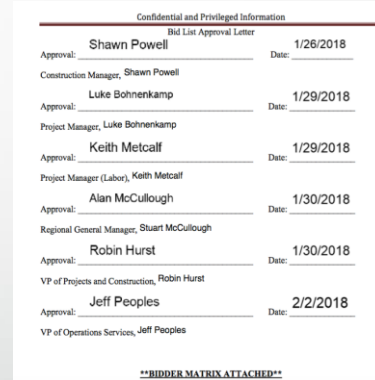


Figure 2
SDS Document Approver and Submitter Process

Conclusion

In conclusion, the ability to use electronic signatures on approval documents for the Bid List Approval Letter and Summary of Award Recommendations for construction projects at Southern Company is possible. There are items that can still be improved such as the attachment of supporting documentation, perhaps by using another tool in the future. The testing of the electronic approval documents was successful in that it yielded shorter routing times as compared to the current manual signature process used for approvals. The objective of the project was accomplished partially due to routing three documents in a week or less time. However, not every document that routed was not routed in less than one week. There were two documents that routed in seven to eleven days.