



Performance Audit Report of Independent Certified Public Accountants on the Federal Communications Commission Wireless Telecommunications Bureau Auctions Division Risk Management Process

January 16, 2018

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Executive Summary

We audited the Federal Communications Commission (FCC) Auctions and Spectrum Access Division's (Auctions Division) risk management processes related to conducting auctions of spectrum licenses. The applicable requirements, orders and instructions are from the Code of Federal Regulations (CFR) Title 47, as well as other requirements, directives, orders, policies, and other audit criteria (collectively, the Requirements). The Requirements are identified in the accompanying Appendix II. Auctions Division management is responsible for compliance with the Requirements. Grant Thornton's responsibility is to reach a conclusion on the audit objectives stated below.

Grant Thornton was contracted by the FCC Office of the Inspector General (OIG) to conduct a performance audit covering the management of risk within the FCC's Auctions Division. The objectives of this performance audit were to:

1. Evaluate the effectiveness and efficiency of the Auctions Division's process for identifying, documenting, managing and communicating risk;
2. Evaluate the effectiveness of the Auctions Division's risk management strategy;
3. Determine if the Auctions Division adequately manages risk to meet agency goals and objectives; and
4. Identify and assess key internal controls in place to ensure the Auctions Division meets its goals and objectives.

We conducted this performance audit for the period of October 1, 2014 through September 30, 2016 in accordance with standards applicable to performance audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that 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 objectives. We examined, on a test basis, evidence supporting risk management processes, as well as performed other procedures we considered necessary in making a determination regarding the efficiency and effectiveness of the Auctions Division's risk identification, documentation, management, and communication. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. Our audit does not provide a legal determination on the FCC Auctions Division's compliance with specified requirements. A performance audit also includes consideration of internal controls over compliance requirements as a basis for designing procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the FCC Auctions Division's internal control over compliance. Accordingly, we express no such opinion related to the Auctions Division's internal controls.

Our audit procedures disclosed that the Auctions Division had weaknesses in internal controls that resulted in increased risk of non-compliance with the Requirements.

We identified reportable findings as a result of the audit procedures performed. We determined that there were internal control deficiencies that were significant within the context of the audit objectives and noted four findings in this report. The findings relate primarily to a lack of policies and procedures implemented within the Auctions Division.

Finding Number	Finding Title and Description	Management Response (Y/N)	Page
1	<p>Finding Title: Policy, Procedures, and Governance for Risk Identification, Documentation, Management, and Communication</p> <p>Finding Description: We identified weaknesses impacting the effectiveness of the risk identification, documentation, management, and communication processes within the Auctions Division</p>	Y	12
2	<p>Finding Title: Lack of Written Policies and Procedures - Real Time Bid Monitoring</p> <p>Finding Description: There were no policies or procedures that identify the steps for performing bid monitoring or the documentation that should be examined and maintained by bid monitors.</p>	Y	15
3	<p>Finding Title: Lack of Written Policies and Procedures – Need-to-Know List Administration</p> <p>Finding Description: No written policy or procedures are in place providing instructions on how the List Administrator performs their duties for the maintenance of the Need-to-Know list.</p>	Y	17
4	<p>Finding Title: Phone Recording Log Inaccuracy</p> <p>Finding Description: There is no documented review process to ensure the accuracy of the phone recording logs that are maintained in cases of disputes arising during an auction.</p>	Y	19

Background

The FCC is an independent agency created by Congress in 1934 to regulate interstate communications. In 1993 Congress passed the Omnibus Budget Reconciliation Act, which gave the FCC authority to use competitive bidding to choose from among two

or more mutually exclusive applications for an initial license for electromagnetic spectrum¹. Prior to this historic legislation, the FCC mainly relied upon comparative hearings and lotteries to select a single licensee from a pool of mutually exclusive applicants for a license.

Since 1994, the FCC has conducted auctions of licenses for electromagnetic spectrum. The FCC has found that spectrum auctions more effectively assign licenses than either comparative hearings or lotteries. The auction approach is intended to award the licenses to those who will use them most effectively. By using auctions, the FCC has reduced the average time from initial application to license grant to less than one year, and the public is now receiving the direct financial benefit from the award of licenses. These auctions are for any eligible company or individual that submits an application and upfront payment, and is found to be a qualified bidder by the FCC.

The Auctions Division is responsible for implementing the FCC's competitive bidding authority through a fair and transparent auction process. The Auctions Division supports the execution of the Wireless Telecommunications Bureau's mission by planning, designing, and conducting auctions at the FCC, including spectrum auctions for wireless broadband such as 700 MHz and Advanced Wireless Service (AWS), paging services, and over-the-air television and radio. The Auctions Division also works on other competitive bidding issues, such as transitioning spectrum for new uses (relocation and re-banding or re-purposing) and reverse auctions to distribute funds for universal service support. The Auctions Division reviews and processes applications filed through the Integrated Spectrum Auction System (ISAS).

FCC auctions are conducted electronically and are accessible over the Internet. Anyone with access to a computer with a web browser can follow the progress of an auction and view the results.

Objectives, scope and methodology

We conducted the performance audit to evaluate the Auctions Division's performance in managing risks related to the auctions process over the period of October 1, 2014 through September 30, 2016. The following auctions were subjected to our audit procedures:

- Auction 97: Advanced Wireless Services (AWS-3),
- Auction 98: FM Broadcast, and
- Auction 1000: Broadcast Incentive Auction, which includes Auctions 1001 and 1002.

¹ The FCC defines spectrum as the range of electromagnetic radio frequencies used to transmit sound, data, and video across the country. It is what carries voice between cell phones, television shows from broadcasters to your TV, and online information from one computer to the next, wirelessly.

Auction 1000 was ongoing during the execution of our audit procedures, and much of the information related to Auction 1000 was sensitive at the time of our testing. Therefore, we were limited in the extent of the procedures we were able to perform. The limitations included:

1. No Auction 1000 telephone recordings were available to test under the limited disclosure rules² due to the potential sensitive nature of the conversations.
2. Bid monitoring could not be observed while bidding rounds were active for Auction 1000.

We also reviewed process documentation to understand the risk management procedures and strategy, as well as the internal controls within the Auctions Division to mitigate risks. Based on our review of the available documentation we planned our approach to address each audit objective.

The following were not subject to audit procedures:

1. Control activities not within the responsibility of the Auctions Division.
2. Automated processes, including internal control activities occurring in ISAS, which is the system utilized to facilitate the auctions.

Audit Objective 1 – Evaluate the effectiveness and efficiency of the Auctions Division’s process for identifying, documenting, managing and communicating risk

We inquired with members of Auctions Division’s management and staff via questionnaires to understand the Auctions Division’s techniques, documents, and tools used for identifying, documenting, managing and communicating risks. We held subsequent meetings with management to confirm and clarify responses. We reviewed relevant policies and procedures related to the identification, documentation, management and communication of risks.

Audit Objective 2 – Evaluate the effectiveness of the Auctions Division risk management strategy

We inquired with Auctions Division’s management via a questionnaire and follow up meetings to determine if management developed, documented, and implemented strategies to manage its risks. As part of our inquiry we requested information regarding

² When appropriate, auctions are conducted under anonymous bidding procedures that limit information publicly available during the auction to reduce bidders’ opportunities to use signals to divide markets and to engage in retaliatory bidding. Certain information on bidder interests (e.g., license selection, upfront payments, and bidding eligibility) and auction activity contained in applications and in bids placed remains non-public until after the close of bidding.

past failures by the Auctions Division to meet their goals and objectives to determine prior instances of ineffective risk management that may have existed during the period under audit. We held brainstorming meetings with Auctions Division management and reviewed risk assessment documentation provided to identify risks affecting the Auctions Division. We categorized each risk as high, moderate, or low. Our categorization was based on our understanding of the relative likelihood of occurrence and impact of negative outcomes. We inspected Auctions Division's documentation regarding the risk management strategy. We compared the risk management strategy to the applicable audit criteria.

Audit Objective 3 – Determine if Auctions Division adequately managed risk to meet agency goals and objectives

We reviewed documentation and inquired with Auctions Division management to develop an understanding of the processes and internal controls in place to prevent or detect failures by the Auctions Division to meet agency goals and objectives. We conducted walkthroughs to confirm our understanding of the internal controls to mitigate risks within the auctions process. We inspected documentation supporting the internal controls identified and the description of the processes discussed in the walkthroughs. Additionally, we inquired with management via a questionnaire to understand how management characterizes the responses taken by the Auctions Division to address each risk and determine if additional internal controls existed that had not previously been identified from our audit procedures.

Audit Objective 4 – Identify and assess key internal controls in place to ensure the Auctions Division meets its goals and objectives

Following the walkthroughs we identified internal control that we determined to be significant or considered to be significant within the context of the of the audit objectives. We tested the internal controls for operating effectiveness but not for the purpose of expressing an opinion on the effectiveness of the FCC Auctions Division's internal control over compliance. We tied each significant internal control to one or more of the risks identified from the brainstorming meetings. We performed either observation or inspection of samples selected randomly to test each significant internal control identified. The testing was limited to those internal controls occurring within the Auctions Division.

When sampling was required we used attribute sampling. The sample sizes were based on a 90% confidence level and 10% tolerable error rate. Due to the nature of this attribute sampling, the results of testing cannot be projected to the population.

Due to the interrelated nature of the four audit objectives certain procedures were applicable to more than one audit objective. In addition, we evaluated the impact of findings across all audit objectives.

Results

Audit Objective 1 - Process for identifying, documenting, managing and communicating risk

Grant Thornton requested and received responses to our questionnaires from members of management and Auctions Division staff. We held meetings with members of management to discuss questionnaire responses. We reviewed support for the responses for which corroboratory evidence existed. The results of both questionnaires and follow up meetings are summarized below.

MANAGEMENT RESPONSES

Question Category	Summary of Responses
General Strategy (Audit Objectives 1 & 2) – included questions regarding whether a Chief Risk Officer is assigned, if and how the Auctions Division sets its risk appetite, and if the Auctions Division defined a risk tolerance.	<ul style="list-style-type: none"> • Although there is no dedicated risk executive, such as a Chief Risk Officer, the consensus in the management responses for the Auctions Division is that the Division Chief is the individual ultimately responsible for managing risk. • Management is not familiar with the terms risk appetite³ and risk tolerance⁴. These are not specific terms used within the Auctions Division when considering risk. In response to questions regarding risk appetite and risk tolerance members of management described their attitude as risk averse.
Identification (Audit Objective 1) – included asking how new and emerging risks are identified and whether there is a specific group designated to monitor the actions taken to identify risks.	<ul style="list-style-type: none"> • New and emerging risks are identified by management by applying past experience and precedent when assessing new circumstances, with input from public comments in some circumstances. • Responses were consistent in stating that management is involved in identifying risks.
Documentation (Audit Objective 1) – included questions about the Auctions Division’s use of a risk heat map ⁵ , risk inventory, or risk	<ul style="list-style-type: none"> • Two Auctions Division management leaders indicated that the Auctions Division performs a risk heat map and risk assessment annually.

³ Risk appetite is defined in Office of Management and Budget (OMB) Circular A-123 Management's Responsibility for Internal Control as the broad-based amount of risk an organization is willing to accept in pursuit of its mission/vision. It is established by the organization’s most senior level leadership and serves as the guidepost to set strategy and select objectives.

⁴ Risk tolerance is defined in OMB Circular A-123 Management's Responsibility for Internal Control as the acceptable level of variance in performance relative to the achievement of objectives. It is generally established at the program, objective or component level. In setting risk tolerance levels, management considers the relative importance of the related objectives and aligns risk tolerance with risk appetite.

⁵ A risk heat map a tool used to present the results of a risk assessment process visually and in a meaningful and concise way.

Question Category	Summary of Responses
and control matrix, and how frequently this document is updated.	<ul style="list-style-type: none"> • The additional respondents from management were not aware that a risk heat map or risk assessment was performed.
Management (Audit Objectives 1 & 2) – included questions regarding the culture and environment of the Auctions Division and encouraging engagement and accountability; whether the Auctions Division adequately managed identified risks to meet the goals and objectives in the past; instances where goals and objectives were not met; and whether the strategy is proactive or reactive.	<ul style="list-style-type: none"> • Every management response received agreed that the culture and environment promotes and encourages accountability in risk management. • Respondents from management believe that risks have been adequately managed in the past to meet the Auctions Division objectives and noted no past failures to meet their goals and objectives. • In addition, management responses consistently assessed the Auctions Division as proactive in their risk management activities.
Communication (Audit Objective 1) – included questions regarding the methods for communicating risks to upper management and lower level employees, and if the risk appetite of the Division was included.	<ul style="list-style-type: none"> • The most common methods of communication mentioned in management responses were emails, memos, and meetings to discuss risk management. • Management’s attitude towards risk is communicated throughout the Auctions Division.
Risk Responses (Audit Objectives 2 & 3) – included obtaining an overall understanding of how risk responses are considered within the Auctions Division, requested input on the responses to specific risks identified, and asked about ways a fraudster could circumvent internal controls.	<ul style="list-style-type: none"> • Management generally agreed that a combination of acceptance, avoidance, reduction, and sharing are used when responding to risks identified. • Based on meetings with management, the same response activities were consistently identified to each risk. • Reduction was consistently applied throughout management’s responses.

STAFF RESPONSES

The risk questionnaire responses received from staff indicated that staff members were familiar with performing internal controls specific to their responsibilities. In addition, staff indicated that they are not aware of any weaknesses that would allow a fraudster to circumvent controls. Three employees noted that there is no consistent process for communicating risk, but also stated that the team communicates openly and often. Staff communicated the opinion that holding risk management trainings and discussing risk appetite would improve risk communication within the division. Overall, the responses received from staff members are consistent with knowledge Grant Thornton obtained during the meetings and walkthroughs performed in the planning and fieldwork phases.

Grant Thornton determined through inquiry and reviews of documentation that the Auctions Division's process for identifying, documenting, managing and communicating risk is efficient. The annual preparation of the risk heat map is a proactive way to discuss potential risks to the Auctions Division. We identified some weaknesses in the process and offer recommendations for improving the effectiveness of the Auctions Division's risk identification, documentation, management, and communication processes. These are communicated in Finding No. 1.

Audit Objective 2 – Risk Management Strategy

We assessed the severity of the risks that were previously identified through the brainstorming meetings with Auctions Division management and the FCC OIG during the planning phase of the audit.

We assessed the responses received from members of Auctions Division management on each risk questionnaire to understand how the responses from management corresponded to the audit criteria identified during planning.

Per our review of each questionnaire response received from Auctions Division management we noted agreement across management's responses that a combination of acceptance, avoidance, reduction, and sharing are considered when addressing risks. Auctions Division management also communicated to us that reduction of risks is preferred whenever possible. Additionally, per review of each questionnaire response received from the Auctions Division management, the Auctions Division implemented internal controls, where possible, to reduce the risk for each risk we assessed as having a high or moderate severity. We tested the internal controls implemented by the Auctions Division to reduce risks and determined by us to be significant within the context of the audit objectives for design as part of our Audit Objective 3 procedures. We tested those controls determined to be designed effectively for operating effectiveness as part of our procedures for Audit Objective 4.

Based on the procedures performed, we conclude Auctions Division's risk management strategy includes considerations for the audit criteria identified and includes the appropriate levels of response to the risks identified by management, the FCC OIG, and our audit team during the planning phase. We noted, however, that Auctions Division management did not document its strategic decisions for responding to specific risks in a consistent or centralized manner. This risk management finding is reflected in Finding No. 1.

Audit Objective 3 – Adequate management of risk to meet agency goals and objectives

We reviewed documentation and inquired with management to identify internal controls. We performed walkthroughs of the 15 processes listed in Table 1 below to confirm our understanding and verify implementation of the internal controls:

Table 1: Walkthroughs Performed

Upfront Payments	Physical Security	Mock Auction
Telephonic Bidder Support	Opening Bid	Auctions Applications
Staff Training	Need-to-Know List	Fraud Investigation
Public Notice	Bid Monitoring	Enforcement Bureau
Integrated Spectrum Auctions System	Auctions Master Checklist	Post Auction

For each internal control confirmed in these process walkthroughs we assessed the significance of the internal control in relation to the risk(s) it is intended to reduce. We determined which internal controls are significant within the context of the audit objectives. For each key internal control we observed the execution of the internal control or examined documentation supporting the internal control to confirm the design and verify the implementation prior to testing. We tested the design of each key internal control listed in Table 2 below. For the internal controls that are designed effectively we tested the operating effectiveness in Audit Objective 4.

Table 2: Test of Design Results

Control/Control Gap	Applicable Risks Identified	Result
1. Need-to-Know list communication	Mishandling and unauthorized access to sensitive information	Designed effectively
2. Bidder application review	Default of winning bidder; Incorrect eligibility determinations for designated entities	Designed effectively
3. Phone line recordings maintenance	Continuity of operations	Designed effectively
4. Physical access controls (Washington, DC)	Continuity of operations; Mishandling and unauthorized access	Designed effectively

Control/Control Gap	Applicable Risks Identified	Result
	to sensitive information	
5. Physical access controls (Gettysburg, PA)	Continuity of operations; Mishandling and unauthorized access to sensitive information	Designed effectively
6. Real-time bid monitoring	Prohibited Communications; Continuity of operations	Failed test of design (Finding No. 2)
7. Investigation of suspicious activity	Prohibited Communications	Designed effectively
8. Auction master checklist maintenance	Continuity of operations	Designed effectively
9. Need-to-Know list maintenance (Gap)	Mishandling and unauthorized access to sensitive information	Failed test of design (Finding No. 3)

Based on our walkthroughs and the results of the tests of design performed, we determined the Auctions Division has processes in place to sufficiently reduce risks related to the Auctions Division achieving its goals and objectives to an acceptable level. Although many processes have been implemented we concluded that two design deficiencies exist within the process, which primarily relate to formalizing the procedures and evidence of performance of the control for bid monitoring and Need-to-Know list maintenance. We did not test the real-time bid monitoring control for operating effectiveness because it failed the test of design. The details of this finding are communicated in Finding No. 2. We identified a control gap in the process for maintaining the Need-to-Know list. This control gap was included in our findings and recommendations in combination with the results of the test of effectiveness in Finding No. 3.

Audit Objective 4 – Identify and assess key internal controls in place

To address Audit Objective 4, we tested the operating effectiveness of the significant controls determined to be designed effectively from our testing in Audit Objective 3. We included control sampling, as necessary to determine whether the Auctions Division effectively followed its processes for achieving its goals and objectives. We

could not perform the test of operating effectiveness for the two physical access controls, numbers 4 and 5 above, for the period of time under the scope of the audit, due to the timing of our fieldwork. We observed these controls during fieldwork and did not consider the results when concluding on the testing of Audit Objective 4. Table 3 below summarizes the results of the tests of operating effectiveness for the remaining five controls.

Table 3: Test of Effectiveness Results

Significant Control	Testing Conclusion
<u>Need-to-Know List Communications</u>	Selected a sample of 25 Need-to-Know emails. We noted two exceptions. Based on the acceptable number of deviations of zero, we concluded the control over the maintenance of the Need-to-Know List was not operating effectively (Finding No. 3).
<u>Phone Line Recordings</u>	Selected a sample of 23 allowing zero exceptions. We noted one exception and we determined this control over the retention of the phone line recordings was not operating effectively (Finding No. 4).
<u>Bidder Application Review</u>	Selected a sample of 25 bidder applications and noted no exceptions. Therefore, controls surrounding the review of bidder applications were determined to be operating effectively.
<u>Investigation of Suspicious Activity</u>	The investigative procedures and follow up occurs outside of the Auctions Division and there was not a process performed by the Auctions Division for the investigation of suspicious activity to test for operating effectiveness.
<u>Auction Master Checklist Maintenance</u>	Tested all (2) Auctions Master Checklists completed by the Auctions Division between October 1, 2014 and September 30, 2016 through inspection of each checklist to determine if it was sufficiently completed. We did not note any exceptions in the controls surrounding the maintenance of the Auctions Master Checklists from the testing performed. Therefore, control over the maintenance of the Auctions Master Checklists was determined to be operating effectively.

We performed tests of operating effectiveness for five controls. The results were that two of these controls passed, two controls failed, and we could not complete testing of one control. The two failures related to the Need-to-Know list and the process for maintaining telephonic bidder support phone line recordings. One of the exceptions related to the Need-to-Know list involved an email being sent to an unauthorized individual. The recipient of the communication notified the List Administrator and signed a non-disclosure agreement (NDA) related to the information received. The

other exception we identified as being of lower risk because it relates to the Need-to-Know List Administrator not adding authorized individuals in a timely manner. This finding is explained in more detail in Finding No. 3 below. The phone recordings exception is the result of the log not accurately reflecting the content of the phone calls. Based on our testing we found no exceptions related to the adequacy of the Auctions Division's retention of phone call recordings in accordance with Auctions Division policy. This finding is explained in more detail in Finding No. 4 below.

Findings and Recommendations

Finding No. 1 - Policy, Procedures, and Governance for Risk Identification, Documentation, Management, and Communication

Condition:

Per our review of each risk questionnaire response and subsequent inquiry of Auctions Division management we noted the Auctions Division performs an annual risk assessment based on instruction and guidance from the FCC Office of the Managing Director (OMD). Per review of documentation we noted the risk assessment process performed by the Auctions Division includes an OMD template for preparing the risk assessment and criteria on which the Auctions Division bases the determinations of likelihood and significance of impact. We noted OMD directs the Auctions Division on which risks to assess. These risks are not specific to the Auctions Division strategic objectives, but are more general to the FCC.

We identified the following weaknesses impacting the effectiveness of the risk identification, documentation, management, and communication processes within the Auctions Division:

1. The Auctions Division does not have a process for determining the division-level risk considerations that provide a basis for risk related decisions on an ongoing basis. These considerations include defining a risk appetite and risk tolerance.
2. The Auctions Division's risk assessment process does not include documentation that identifies any risks to meeting the Auctions Division's own specific strategic goals and objectives. The linkages between the risks assessed by the Auctions Division and FCC's Strategic Plan is not demonstrated in documentation.
3. Risk policy is not communicated to staff within the Auctions Division using a formal method, e.g. risk specific trainings or instructions on Auctions Division risk management policy.
4. Auctions Division management communicated the ways in which the Auctions Division characterizes its responses to the risks identified in performing our audit procedures. The decisions related to Auctions Division management's chosen responses to the risks identified are not documented to support the risk

management strategy implemented. This includes the decisions to reduce, avoid, transfer, or accept risks.

Criteria:

1. Office of Management and Budget (OMB) Circular No. A-123 “Management’s Responsibility for Enterprise Risk Management and Internal Control” offers the following guidance on governance that is relevant to this discussion:

The responsibilities of managing risks are shared throughout the Agency from the highest levels of executive leadership to the service delivery staff executing Federal programs. Industry best practices suggest risk management functions generally have the following characteristics:

- *helping senior management develop and implement core policies and procedures with respect to enterprise risk management, including developing a process to define risk appetite, and establish risk thresholds accordingly;*
- *ensuring the current risk levels and processes are consistent with the established risk tolerance thresholds and policies;*
- *supporting implementation of effective controls;*
- *developing strong reporting systems and analysis that incorporate quantitative and qualitative information to provide effective portfolio views of risk;*
- *identifying emerging risks, concentrations of risk, and other situations that could be properly assessed; and*
- *elevating critical issues to appropriate levels within an Agency in a timely fashion.*

Regardless of the governance structure developed, agency governance should include a process for considering risk appetite and tolerance levels. The concept of “risk appetite” is key to achieving effective ERM, and is essential to consider in determining risk responses. Although a formally documented risk appetite statement is not required, agencies must have a solid understanding of their risk appetite and tolerance levels in order to create a comprehensive enterprise-level risk profile. Risk appetite can be considered qualitatively and/or quantitatively and should be factored into the process of balancing risks with opportunities. Additionally, risk appetite and tolerance levels should be evaluated on a regular basis and adjusted accordingly to meet the needs of the organization.

2. Government Accountability Office (GAO)'s Standards for Internal Control in the Federal Government (the Green Book) Paragraph 12.04 offers the following definitions that are relevant to this discussion:

Those in key roles for the unit may further define policies through day-to-day procedures, depending on the rate of change in the operating environment and complexity of the operational process. Procedures may include the timing of when a control activity occurs and any follow-up corrective actions to be performed by competent personnel if deficiencies are identified. Each unit, with guidance from management, determines the policies necessary to operate the process based on the objectives and related risks for the operational process. Each unit also documents policies in the appropriate level of detail to allow management to effectively monitor the control activity. Management communicates to personnel the policies and procedures so that personnel can implement the control activities for their assigned responsibilities.

Cause:

Per review of the risk questionnaires and inquiry with members of management, aspects of enterprise risk management described above have not been implemented at the division-level. Because management maintains a risk averse attitude and holds weekly meetings which include discussions of risk the Auctions Division has not identified a need for taking additional steps to improve its risk identification, documentation, management, and communication processes.

Effect:

The conditions identified may have the following effects on the Auctions Division.

1. Without having the risk management considerations of risk appetite and risk tolerance determined at the division-level, the Auctions Division may be less effective at responding to changing circumstances or objectives. Ineffective risk identification, documentation, management, and communication processes may impact the Auctions Division's ability to properly prioritize resources.
2. The lack of a linkage between the Auctions Division's strategic objectives and its risk assessment may result in an insufficient prioritization of those risks with the greatest impact on the FCC's mission.
3. The absence of risk specific communications to Auctions Division staff increases the likelihood that decisions are made that may negatively impact the Auctions Division's ability to achieve its strategic goals and objectives.
4. The absence of documentation for the Auctions Division's chosen responses to risks may result in inconsistent decision making in response to future risk and deficiencies.

Recommendations:

We recommend the Auctions Division take the following actions:

1. Formalize a group of Auctions Division managers into a risk committee. This committee would be responsible for driving the risk identification, documentation, management, and communication decisions and ownership for risk strategy and policy decisions within the Auctions Division;
2. Prepare documentation mapping the strategic goals and objectives applicable to the Auctions Division to the related risks identified. Perform future risk assessments considering these goals and objectives to ensure the Auctions Division's impact on the FCC's Strategic Plan is appropriately considered;
3. Formally communicate risk management policy to staff within the Auctions Division, e.g. risk specific trainings, or instructions; and
4. Document the Auctions Division's decisions related to management's chosen responses to the risks identified, i.e. reduction, acceptance, avoidance, or

sharing. The documentation of these responses can be used as a basis for responding to or informing on future policy and process changes at the Auctions Division, OMD, or FCC.

Finding No. 2 - Lack of Written Policies and Procedures - Real Time Bid Monitoring

Condition:

The Auctions Division had not documented policies or procedures identifying the steps for performing bid monitoring. Additionally, the Auctions Division had not defined documentation requirements for the bid monitors to evidence the monitoring performed. During our walkthroughs and discussions with management, we were informed that Auctions Division management with access to the war room monitor bids from inside of the war rooms in Washington, D.C. and Gettysburg, PA during the live auction bidding rounds. Real time bidding is monitored to understand trends and make decisions on changes to the timing and frequency of bidding rounds, and decisions on changes to the stage of the auction in terms of bidder activity requirements. Auctions Division management also looks for any deviations from typical patterns seen in previous bidding rounds or auctions, e.g. changes in the frequency and amounts of bidding by particular bidders, or indications that may suggest prohibited communications amongst bidders. Suspicious patterns and changes in frequencies or amounts of bids could indicate violations of the Commission's rules or the auction procedures that were announced in the Procedures Public Notice. Bid monitors gather evidence throughout the auction on bidders who may engage in prohibited communications. Bidders that could possibly be in violation of rules may be investigated by the Auctions Division during the auction or the FCC's Enforcement Bureau after the auction closes. Bid Monitors use their experience and background to identify bid patterns. We provided our walkthrough documentation to management for review and confirmed our understanding from the walkthroughs.

Criteria:

1. Office of Management and Budget (OMB) Circular No. A-123 "Management's Responsibility for Internal Control" requires the following:

Appropriate internal control should be integrated into each system established by agency management to direct and guide its operations. As stated earlier in this document, internal control applies to program, operational, and administrative areas as well as accounting and financial management.

Generally, identifying and implementing the specific procedures necessary to ensure effective internal control, and determining how to assess the effectiveness of those controls, is left to the discretion of the agency head. While the procedures may vary from agency to agency, management should have a clear, organized strategy with well-defined documentation processes that contain an audit trail, verifiable

results, and specify document retention periods so that someone not connected with the procedures can understand the assessment process.

2. Government Accountability Office (GAO)'s Standards for Internal Control in the Federal Government (the Green Book) Paragraph 12.04 states:

Those in key roles for the unit may further define policies through day-to-day procedures, depending on the rate of change in the operating environment and complexity of the operational process. Procedures may include the timing of when a control activity occurs and any follow-up corrective actions to be performed by competent personnel if deficiencies are identified. Each unit, with guidance from management, determines the policies necessary to operate the process based on the objectives and related risks for the operational process. Each unit also documents policies in the appropriate level of detail to allow management to effectively monitor the control activity. Management communicates to personnel the policies and procedures so that personnel can implement the control activities for their assigned responsibilities.

3. CFR Title 47 – Chapter 1 – Subchapter A – Part 1 – Subpart Q -§1.2105(c) states:

Prohibition of certain communications. (1) After the short form application filing deadline, all applicants are prohibited from cooperating or collaborating with respect to, communicating with or disclosing, each other or any nationwide provider that is not an applicant, or, if the applicant is a nationwide provider, any non-nationwide provider that is not an applicant, in any manner the substance of their own, or each other's, or any other applicants' bids or bidding strategies (including post-auction market structure), or discussing or negotiating settlement agreements, until after the down payment deadline, unless such communications are within the scope of an agreement described in paragraphs (a)(2)(ix)(A) through (C) of this section that is disclosed pursuant to paragraph (a)(2)(viii) of this section.

Cause:

Auctions Division management has not identified a need for documenting policies and procedures for performing bid monitoring, or creating and retaining documentary evidence supporting the bid monitoring performed on each auction.

Effect:

Lack of formal monitoring procedures or documentation of bid monitoring performed in prior auctions increases the risks that new bid monitors will not perform monitoring effectively. Ineffective monitoring may inhibit the Auctions Division's ability to sufficiently identify prohibited actions by bidders or effectively manage the execution of bidding occurring throughout each multiple round auction. Additionally, without evidence to support the monitoring procedures performed it may be difficult to determine whether processes used were effective after the auction has concluded. Ineffective monitoring could result in rules violations going undetected, as well as

undermine the fairness and competitiveness of the auction. This control requires a significant degree of judgment that could vary greatly among different bid monitors.

Recommendations:

Grant Thornton recommends the following:

5. Auctions Division management document in writing, the procedures and methods for monitoring bidding during the auction rounds, including the identification of patterns in bidding and deviations from patterns.
6. Management retain documentary evidence to support bid monitoring procedures performed in Auctions Division policy.

Finding No. 3 - Lack of Written Policies and Procedures - Need-to-Know List Administration

Condition:

The Auctions Division had no written policy or procedures in place providing instructions on how the List Administrator performs his duties for the maintenance of the Need-to-Know list. For each new auction an Auctions Division employee is assigned the duties of administering the Need-to-Know list. This individual is referred to as the List Administrator for the auction. The individual who served as the List Administrator for the previous auction trains the new List Administrator on their responsibilities. Generally in the past auctions, the Need-to-Know List Administrator was informed of an employee's access removal from the employee or the employee's supervisors. We provided our walkthrough documentation to Auctions Division's management for review and confirmed the understanding obtained from the walkthrough.

During our test of effectiveness, we sampled 25 Need-to-Know emails and determined that one Need-to-Know email was sent to a recipient who was not on the most recent Need-to-Know list (Sample #1). The List Administrator within the Auctions Division obtained a signed NDA from the recipient following the notification.

Criteria:

1. Office of Management and Budget (OMB) Circular No. A-123 "Management's Responsibility for Internal Control" offers the following:

Appropriate internal control should be integrated into each system established by agency management to direct and guide its operations. As stated earlier in this document, internal control applies to program, operational, and administrative areas as well as accounting and financial management.

Generally, identifying and implementing the specific procedures necessary to ensure effective internal control, and determining how to assess the effectiveness of those controls, is left to the discretion of the

agency head. While the procedures may vary from agency to agency, management should have a clear, organized strategy with well-defined documentation processes that contain an audit trail, verifiable results, and specify document retention periods so that someone not connected with the procedures can understand the assessment process.

2. Government Accountability Office (GAO)'s Standards for Internal Control in the Federal Government (the Green Book) Paragraph 12.04 states:

Those in key roles for the unit may further define policies through day-to-day procedures, depending on the rate of change in the operating environment and complexity of the operational process. Procedures may include the timing of when a control activity occurs and any follow-up corrective actions to be performed by competent personnel if deficiencies are identified. Each unit, with guidance from management, determines the policies necessary to operate the process based on the objectives and related risks for the operational process. Each unit also documents policies in the appropriate level of detail to allow management to effectively monitor the control activity. Management communicates to personnel the policies and procedures so that personnel can implement the control activities for their assigned responsibilities.

3. CFR Title 47 – Chapter 1 – Subchapter A – Part 19 – Subpart B -§19.735-203(a & d) states the following:

(a) Except as authorized in writing by the Chairman pursuant to paragraph (b) of this section, or otherwise as authorized by the Commission or its rules, nonpublic information shall not be disclosed, directly or indirectly, to any person outside the Commission. Such information includes, but is not limited to, the following:

(1) The content of agenda items (except for compliance with the Government in the Sunshine Act, 5 U.S.C. 552b); or

(2) Actions or decisions made by the Commission at closed meetings or by circulation prior to the public release of such information by the Commission.

(d) Any person regulated by or practicing before the Commission coming into possession of written nonpublic information (including written material transmitted in electronic form) as described in paragraph (a) of this section under circumstances where it appears that its release was inadvertent or otherwise unauthorized shall promptly return the written information to the Commission's Office of the Inspector General without further distribution or use of the written nonpublic information. Any person regulated by or practicing before the Commission who willfully violates this section by failing to promptly notify the Commission's Office of the Inspector General of the receipt of written nonpublic information (including written material transmitted in electronic form) that he knew or should have known was released inadvertently or in any otherwise unauthorized manner may be subject to appropriate sanctions by the Commission. In the case of attorneys practicing before the Commission, such sanctions may include disciplinary action under the provisions of §1.24 of this chapter.

Cause:

Per discussion with the Auctions Division, the Need-to-Know list has been in place since 2005 and was initiated alongside the limited disclosure rules. Currently, the List Administrator has discussions with senior management of the Auctions Division regarding the process for administering the Need-to-Know list and uses examples of lists and email memos from previous auctions as a guide for maintaining the list. Management had not identified any additional steps needed to formally document policies and procedures for administering the Need-to-Know list.

Effect:

The reliance on verbal instructions and discussions may result in the List Administrator making decisions that do not comply with the unwritten policy implemented by the Auctions Division as a result of miscommunication, or lack of reference documentation. Without a written policy or procedure identifying the timeliness of, and process for, adding or removing individuals from the list Need-to-Know list, there is a risk that unauthorized individuals might be added, or sensitive information might be shared with individuals who no longer have a need-to-know. If the List Administrator does not remove an employee from the list in a timely manner, authorized individuals may not be aware the employee's access was terminated and may continue to communicate sensitive information to unauthorized individuals.

Recommendations:

Grant Thornton recommends the Auctions Division management:

7. Document, in a written policy or a standard operating procedure, the roles, responsibilities, and procedures for the Need-to-Know List Administrator.
8. Include written policy guidance on every activity the administrator is responsible for, including adding and removing individuals from the list, documenting each version of the list that has been updated, and the frequency for sending the list to individuals with need-to-know.
9. Document the frequency of review and follow up required for the Need-to-Know list in the policy or procedure documentation.

Finding No. 4 - Phone Recording Log Inaccuracy**Condition:**

There is no documented review process within the Auctions Division to ensure the accuracy of the phone recording logs that are maintained in cases of disputes arising during an auction. The Auctions Division records and maintains records of phone call(s) to the telephonic bidder hotline for each auction. After each call, the process described by the Auctions Division is the telephonic bid assistant within the Auctions Division fills out a call sheet to ensure there is an immediate written record of each call. Then the Auctions staff updates the phone log to note the time of the call, who took

the call, bidder who called, whether a bid was placed, and a description of the conversation by transferring information from the call sheets. The content of the phone log represents the conversation in the event the phone call(s) needs to be reviewed at a later date. For example, in the event of a dispute regarding a bid, FCC management may need to review the actual phone call conversation. The recordings provide the Auctions Division support for any disputes that arise over the bids that were placed during the auction. During our test of effectiveness we sampled 23 phone line recordings from the phone logs provided and noted that one phone call tested (Sample #14) did not match the description in the log. The phone log did not include any language within the bid description that indicated a bid was placed, however, the call recording discloses that a bid was placed.

In addition, the Auctions Division uses a Cisco phone call system and provided a Cisco report for the period under audit. The Cisco report should contain all of the calls that the Auctions Division received. We performed a comparison of the Cisco report to the phone logs (population) provided by management. We noted some discrepancies between the Cisco report and the phone logs.

Criteria:

1. Government Accountability Office's (GAO) Standards for Internal Control in the Federal Government (The Green Book) offers the following statements in Paragraph 16.05 that are relevant to this discussion:

Management performs ongoing monitoring of the design and operating effectiveness of the internal control system as part of the normal course of operations. Ongoing monitoring includes regular management and supervisory activities, comparisons, reconciliations, and other routine actions. Ongoing monitoring may include automated tools, which can increase objectivity and efficiency by electronically compiling evaluations of controls and transactions.

2. CFR Title 47 – Chapter 1 – Subchapter A – Part 1 – Subpart Q -§1.2103(a - b) state the following:

(a)Public notice of competitive bidding design options. Prior to any competitive bidding for initial licenses, public notice shall be provided of the detailed procedures that may be used to implement auction design options.

(b)Competitive bidding design options. The public notice detailing competitive bidding procedures may establish procedures for collecting bids, assigning winning bids, and determining payments, including without limitation:

Cause:

Per Auctions Division management, the discrepancy in the description for the one phone conversation exception in the sample selected was the result of the log not being

updated accurately. The discrepancies between the Cisco phone log and the phone log maintained by the Auctions Division is a result of the lack of documentation concerning the update of the phone log.

Effect:

If a phone recording needs to be accessed by a member of the Auctions Division to respond to a bidder question, request, or dispute, the Auctions Division might not be able to respond in an accurate and timely manner due to inaccurate records management. If the records are inaccurate the Auctions Division could be unable to adequately settle disputes with bidders over telephonic communications. Unresolved disputes with bidders may result in delays in the auction and awarding licenses, which could negatively impact both the Auctions Division and bidders.

Recommendations:

Grant Thornton recommends that:

10. Auctions Division implement a review process to ensure the date of the call, bidder making the call, bid information (whether a bid was placed), and description of the call are recorded accurately in the log for each conversation between bidders and bid assistants.

Conclusions

Based on the test work performed, our audit disclosed that the Auctions Division has weaknesses in internal controls which result in increased risk of non-compliance with the Requirements. The four audit findings discussed above provide details on the internal control and risk identification, documentation, management, and communication process weaknesses identified.

For the purpose of this report, a finding includes a condition that shows evidence of a weakness in the design effectiveness of the internal control or failure in the operating effectiveness of internal controls that were in effect during the audit period. A finding also includes circumstances affecting the efficiency or effectiveness of the Auctions Division's risk identification, documentation, management, or communication process.



Arlington, VA
January 16, 2018

Appendix I: Management's Response



Federal Communications Commission
Washington, D.C. 20554

December 18, 2017

David L. Hunt
Inspector General
Office of Inspector General
Federal Communications Commission

Re: Management's Response to Independent Auditor's Report on the Wireless
Telecommunications Bureau Auctions Division Risk Management Process

Dear Mr. Hunt:

Thank you for the opportunity to review and comment on the draft audit report from the Office of Inspector General (OIG) entitled *Performance Audit Report of Independent Certified Public Accountants on the Federal Communications Commission Wireless Telecommunications Bureau Auctions Division Risk Management Process*. This performance audit conducted by the Office of Inspector General's (OIG) independent auditors, Grant Thornton, LLP, audited the Auctions and Spectrum Access Division's (Division) risk management processes related to conducting auctions of spectrum licenses. We are pleased that the report indicates that the Division has efficient processes for identifying, documenting, managing and communicating risk, and we welcome the opportunity to evaluate how we can further improve our risk management process. We address OIG's findings below.

With regard to Finding I of the report, the Division is committed to addressing the recommendations identified by the auditors to improve the effectiveness of the processes for identifying, documenting, managing and communicating risk within the Division. The Division is in the process of designating a subgroup of Division managers to serve as a risk committee that will be responsible in the first instance for the Division-level risk considerations, including considerations of risk appetite and risk tolerance, that will serve as the basis for the Division's decisions on risk strategy and policy. Future risk assessments will assess the significance of identified risks to the Division's ability to achieve its strategic goals and objectives. The Division will also plan to communicate more formally with its staff about Division risk management policy, either through training or instruction. Finally, the Division will document its responses to the identified risks (*i.e.*, reduction, acceptance, avoidance, or sharing), within the limits of available resources,¹ so that they can inform future auction process changes. We

¹ We note that paragraph 3.12 of the GAO 2014 Standards for Internal Control in the Federal Government provide that the 'extent of the documentation needed to support the design, implementation, and operating effectiveness of the five components of internal control is a matter of judgement for management, and involve consideration of the cost benefit of documentation, requirements for the entity, as well as the size nature and complexity of the entity and its objectives.

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believe that upon completion, these steps will be fully responsive to Recommendations 1, 2, 3, and 4 in the report.

With regard to Finding 2 and the associated recommendations concerning real time bid monitoring, the Division is committed to addressing the recommendations identified by the auditors to improve documentation of the procedures for bid monitoring and to define documentation requirements for bid monitors to evidence the monitoring performed. However, the Division would like to provide the following additional clarification. This finding appears to be based on a premise that bid monitoring should be a discrete set of steps performed by the monitor. With respect to the recommendation to document procedures and methods for identifying patterns in bidding and deviations from patterns, such recommendation does not acknowledge that bidding in every auction varies greatly depending on many factors, including but not limited to the radio service for which items (licenses or construction permits) are being auctioned, whether it is an auction of initial licenses for the service or a reauction, whether items are available uniformly across the country or are only available in certain areas, the number of bidders, the type of bidders (large corporations or very small businesses), whether some bidders already have licenses for the service or a complementary service, the progress of the auction (e.g., early in the auction with many bids in each round and few rounds per day, or late in the auction with few bids per round, few bidders still actively bidding, and many rounds per day), and the bidding procedures adopted for the auction (e.g., are bid withdrawals allowed). Therefore, because the bidding in every auction can vary greatly, the method of monitoring bidding will also be subject to variation from one auction to another. Sometimes an analyst will examine the bidding behavior of a certain bidder or in certain areas at the request of management. The methods by which such information may be conveyed also varies among auctions based on the information disclosure policies adopted for each auction. Accordingly, our documentation of procedures will identify certain basic categories for monitoring generally, but will remain a living document to address new situations as they arise.

With respect to the recommendation that management retain documentary evidence to support bid monitoring procedures, we note that auction results data is persistent. Once an auction is complete, bidding data remains publicly available on the FCC website.

With regard to Finding 3 of the report concerning administration of the Need-to-Know List, the Division plans to document the role, responsibilities, and procedures for the Need-to-Know List Administrator, including written guidance on adding and removing individuals from the list, documenting updated versions of the list, and the frequency of review and distribution of the list and any required follow-up.

Although we generally concur that reliance on verbal instructions rather than written instructions regarding list administration could carry a greater risk of a mistake in an Administrator's carrying out of his/her responsibilities, we also note that administration of the list is not a complex task involving multiple steps, and as such, the risk of such an occurrence is small, particularly because management exercises the same level of routine supervision and review of list revisions prior to list distribution that it does for other auction-related documents it

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disseminates. In addition, it should be noted that in the cited instance when a Need-to-Know email was sent to the wrong person, this occurrence was due to simple human error and was not due to the absence of a written policy on administration of the Need-to-Know List, or due to any failure of the Administrator to keep the Need-to-Know list up-to-date. The email was intended to be sent to a person on the Need-to-Know list but was inadvertently sent to someone else with the same first name. This mistake resulted from the Auto-Complete feature of Microsoft Outlook, which automatically fills-in the last name of the email recipient as the sender is typing the recipient's first name. Such an error would not have been avoided by the existence of a written policy on list administration.

With regard to finding 4 and the associated recommendation to implement a review process to ensure the accuracy of telephone recording logs, we note that a review process has already been put in place. Division staff is assigned to review the call sheets created by the telephonic bid assistants who handle the calls to the auction hotline. Based on the call sheets, Division Staff creates a written log for the auction that documents, among other things, the date and time of the call, the name of the bidder who called, whether a bid was placed, and a brief description of the conversation. The staff also checks the call log against the report generated by the Cisco phone system for accuracy. In response to the recommendation, in order to better ensure the accuracy of telephone recording logs, the Division will document this process.

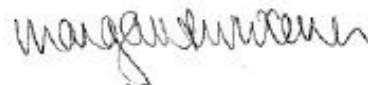
Regarding the discrepancies found between the Cisco report and the call logs, the Division will work to improve its accuracy rate, however it is worth noting that our analysis shows that in the overwhelming majority of instances, the inconsistencies that have arisen were with respect to the notation of phone calls that were not auction-related (calls to a non-auction phone line) or not placed by actual bidders (internal test calls). Out of 51 discrepancies noted, 36 calls were internal tests of the phone line for which a call sheet was not created and 5 calls were non-auction related and came in on a non-auction COOP phone line, however a bid assistant nevertheless completed a call sheet when it was unnecessary to do so. While we concur with the report that generally, accurate records of recorded phone calls are important to enable timely and accurate response to a bidder question or dispute, we also note that because of the low volume of telephonic bidding in our auctions, it is very unlikely that an error in transcribing a piece of information from a call sheet to the call log would jeopardize the Division's ability to access the recording of a call in a timely manner. The recording would still be easily accessible and searchable for verification of the content of the telephone communication at issue.

Overall, we are pleased that the OIG has determined that the Division has processes in place to sufficiently reduce risks related to the Division achieving its goals and objectives to an acceptable level. The Division will look to expand on the improvements to its processes and controls that it has already made by implementing the recommendations outlined in the audit report.

David L. Hunt
December 18, 2017
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Thank you again for the opportunity to comment on this draft report. We believe that the measures we have underway will bring each of the report's findings to a successful conclusion. We look forward to working with the OIG in the future.

Sincerely,



Margaret W. Wiener
Chief, Auctions and Spectrum Access Division Wireless
Telecommunications Bureau

Appendix II: Requirements and Criteria Applicable to FCC Auctions Division

Specific Requirements Applicable for FCC Spectrum Auctions:

- CFR Title 47 – Chapter 1 – Subchapter A – Part 1 – Subpart Q -§1.2103(a - b), methods of bidding are to be defined in a public notice. Public Notice DA 15-1183, III, D.6 defines the methods of bidding for Auction 1000.
- CFR Title 47 – Chapter 1 – Subchapter A – Part 1 – Subpart Q -§1.2105(a)
- CFR Title 47 – Chapter 1 – Subchapter A – Part 1 – Subpart Q -§1.2105(c)
- CFR Title 47 – Chapter 1 – Subchapter A – Part 19 – Subpart B -§19.735-203(a & d)
- FCC Directive Number FCCINST 1059.4 *Communicating Spectrum Auction Events that have Financial Recording and Reporting Impact*, 4.a, paragraphs 1-6, 9

Internal Control standards and guidance applicable to federal entities, which served as criteria to execute the objectives of the performance audit:

- Government Accountability Office (GAO)'s *Standards for Internal Control in the Federal Government* (the Green Book)
- Office of Management and Budget (OMB) Circular No. A-123 “Management’s Responsibility for Internal Control”