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Executive summary and conclusion

Background

This audit report presents the findings of the National Research Council Canada's (NRC) 2015-16 Audit of Revenue Management. The audit was scheduled within NRC's 2014-15 to 2016-17 Risk-Based Audit Plan which was approved by the President following the recommendations of the Senior Executive Committee and thereafter by the Departmental Audit Committee.

Audit objective

The objective of the audit was to provide independent assurance as to the adequacy of NRC's framework for revenue management and its application as part of the transformed organization. The successful application of this framework will help NRC meet its transformation objectives. With an effective implementation, it can be expected that the information required to make informed decisions will be readily available within corporate information systems. Additionally, this audit examined key documentation to ensure compliance with applicable Government of Canada and NRC policies and directives.

Raison d'être

Revenue management is an important post-transformation topic at NRC as it demonstrates the market's willingness to exchange financial consideration for the value created within NRC. Secondly, it is used to generate funding for facilities, scientific infrastructure, and human resource investments.

Revenue management at NRC is a complex process involving multiple stakeholders. This complexity necessitates examination to ensure that the existing framework is functioning as intended. With an effective implementation, it can be expected that the information required to monitor the Council's strategy can be easily obtained corporately.

Audit opinion and conclusion

The audit found that overall NRC revenue management framework is adequate. There are opportunities to strengthen the framework design and compliance. This opinion is further detailed in the sections below.

In terms of framework design, the audit found that roles and responsibilities are well defined and understood. However, there is an opportunity to improve the flow of information between revenue management stakeholders so that information needs are understood and acted upon. For example, sharing when billing milestones have been met by portfolios so that Finance Branch can invoice clients in a timely manner, or when changes are made to a project all parties are informed to ensure the contract is updated accordingly. This requires a holistic approach to revenue management so that all parties understand the key exchanges of information and when they should be involved. Specifically, the framework should include a formal change order process.

The audit noted that the fundamental project management concepts of the revenue framework were in use with sales contracts and orders being regularly maintained. The majority of sampled projects were planned adequately and maintained with regular expenditure postings including closing the project after completion. This ensured that information for decision making was appropriately available.

In terms of compliance, the audit found high compliance with contracting-in authorities – including the retention of accompanying costing documentation, using the standard contracting-in templates and compliance with the delegations of financial signing authorities as they relate to contracting-in. Where gaps in compliance were found these related to the visibility of information required to understand delegation of authority requirements, for example exclusivity clauses and updating pricing and terms and conditions of legacy contracts. Therefore, it is suggested that the contracting-in template increase the visibility of these types of clauses and that all legacy contracts when they become due are reviewed against the standard contracting-in requirements.

In addition, the audit found and noted that there have been improvements in the revenue management framework since the Audit of Financial Management Control Framework – Revenue was conducted in 2011. However, while progress has been made towards linking key SAP modules together, specifically linking Sales and Distributions module (SAP SD) with Project Systems (SAP PS), minor issues were still noted regarding the transition of information between these systems that should be continued to be addressed, as found by the 2015-16 audit procedures.

Table 1 below presents the audit assessment rating by line of enquiry and associated recommendation number(s). The overall audit conclusion is also presented.

Table 1: Audit assessment and recommendation numbers

Line of enquiry	Assessment	Associated recommendation(s)
1. Framework design	● Needs improvement	1,2
2. Information for decision making	● Adequate	1
3. Compliance	● Adequate	1, 3
Overall audit conclusion	● Adequate	

Legend: Potential audit ratings (refer to Appendix D for definitions)

● Management attention required
 ● Needs improvement
 ● Adequate
 ● Strong

→ Target performance: adequate or strong

Summary of recommendations

Recommendation 1: Finance Branch should develop a holistic approach to revenue management that:

- Involves all parties in development and implementation; and
- Organizes key documentation in central repository while restricting access to business confidential information.

Recommendation 2: Planning and Reporting Services should develop a formal project change order process.

Recommendation 3: Business Management Support should improve the layout of standard contracting-in templates while enforcing their use:

- Clearly differentiate between exclusive use technology licensing agreement templates and non-exclusive use using a clear visual indicator; and
- Revisit legacy agreements before they are renewed to ensure that pricing and terms and conditions are renegotiated based on a revised estimation of level of effort using updated cost rates

Management's response and action plan to address these recommendations is included in Appendix C of this report.

Statement of conformance

In my professional judgment as the Chief Audit Executive, sufficient and appropriate audit procedures have been conducted and evidence gathered to support the accuracy of the audit opinion and conclusion. The audit conforms to the [Internal Auditing Standards for the Government of Canada](#), as supported by the results of the quality assurance and improvement program.

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1.0 Introduction

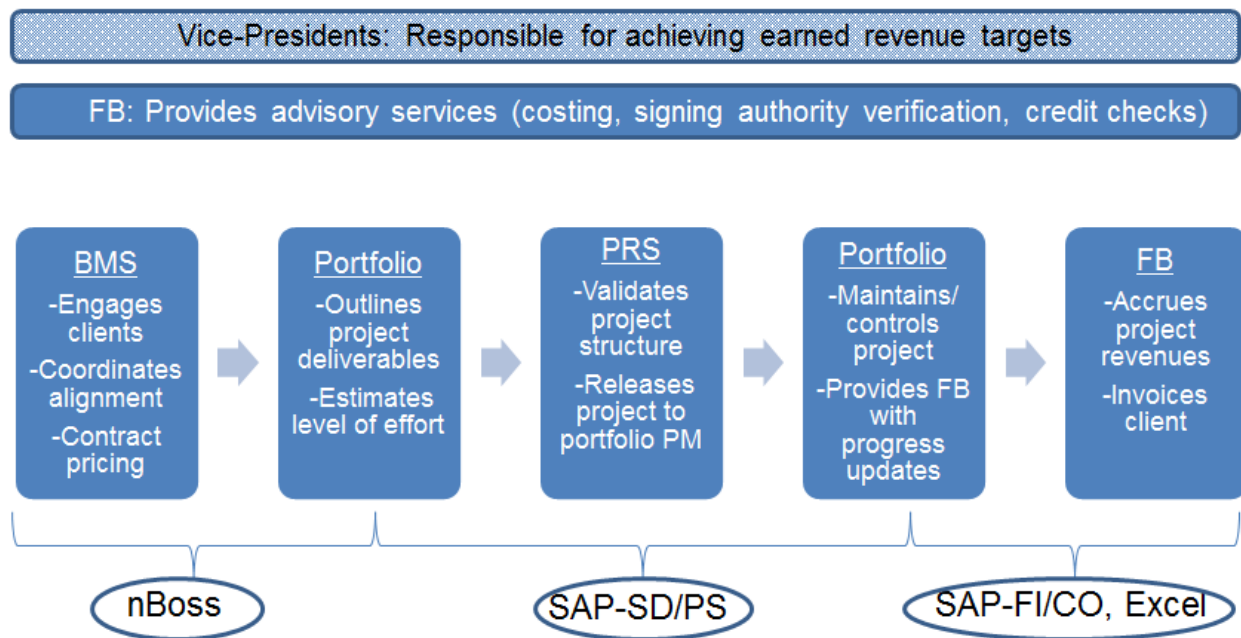
This audit report presents the findings of NRC's 2015-16 Audit of Revenue Management. The audit was scheduled in NRC's 2014-15 to 2016-17 Risk-Based Audit Plan which was approved by the President following the recommendations of the Senior Executive Committee and thereafter by the Departmental Audit Committee.

Revenue management is an important post-transformation topic at NRC. It demonstrates willingness to exchange financial consideration for the value created within NRC, effectively indicating the impact created by NRC's programs. The impact of NRC's innovation support, strategic research, and scientific and technical services can be valued by marketplace metrics such as earned revenue.

2.0 Background and context

Revenue management is an integral process spanning across NRC's Portfolios, and Corporate Services including Business Management Support (BMS), Finance Branch (FB), Planning and Reporting Services (PRS), and IT systems (nBoss). A well-designed and aptly applied revenue management framework relies on effective controls combined with clearly defined roles and responsibilities. The expected outcome of a successfully implemented framework results in accurate, timely, and relevant information from corporate systems which can be leveraged for informed decision making. An overview of the interdependent revenue management stakeholders and their information systems used can be found in figure 1.

Figure 1: The revenue management process

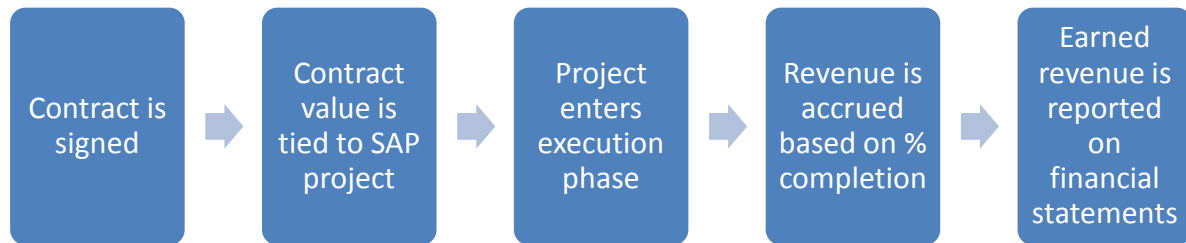


As a large, uniquely operated Research and Technology Organization with a vast client list, NRC's types and sources of revenue are numerous and diverse. This requires a more complex and mature framework for revenue management. Striving to locate any areas for business process improvement within the revenue management framework is integral to improving the "turn-around time" on contracting-in agreements so NRC can continue to position itself amongst the top Research and Technology Organizations in the world.

NRC reported earned revenues totaling \$146.7M in fiscal year 2014-15. Earned revenue is accrued at the most granular level of the organization's reporting structure: the project level. NRC accrues revenue based on a percentage of the project's completion as determined by the project manager. In a complex research and technical

environment, large projects can span multiple years. This gives rise to the difference between earned revenue as reported in NRC's financial statements and signed revenue contracts (not all revenue contracted in fiscal year 2014-15 was necessarily earned within the fiscal year). Figure 2 depicts how signed revenue contracts flow through the project management process, eventually being recognized as earned revenue as reported on the financial statements.

Figure 2: Earning of contracted revenues



Revenue is accrued or deferred to mirror the status of project tasks and deliverables. A key indicator of future earned revenues as reported on the financial statements is the value of contracts that are recorded in the current and previous fiscal year, commonly referred to as revenue backlog.

NRC has undergone significant change in recent years and the organization's priorities have shifted. In the midst of the transformation, NRC was severely impacted by a cyber-intrusion which occurred in July 2014. Without the use of shared networks or corporate information systems, business units were asked to continue to operate using interim work-around processes. While significant efforts were made, project deliverables were delayed. As a result, the value of signed contracts declined and project progress slowed, causing a slowdown in the accrual of earned revenues.

3.0 About the audit

3.1 Objective

The objective of the audit was to provide independent assurance as to the adequacy of NRC's framework for revenue management and its application as part of the transformed organization. The successful application of the revenue management framework will enable NRC to support its commercialization strategy. With an effective implementation, it can be expected that the information required to make informed decisions will be readily available within corporate information systems. Additionally, this audit examined key documentation to ensure compliance with applicable Government of Canada and NRC policies and directives.

3.2 Scope

The audit was conducted between April 2015 and January 2016 and included a review of sales contracts and sales orders that were scheduled to start in the 2014-15 fiscal year (April 1, 2014 – March 31, 2015). The sampled contracts and orders were mapped to the projects to which they related in order to examine fundamental project management attributes.

The type of revenues examined in the audit accounted for 85% of NRC's \$146.7M of earned revenue in fiscal year 2014-15¹. Specifically, the revenue streams examined were technical services (\$75.0M), strategic research services (\$46.2M), and sale of goods and information products (\$4.2M) regardless of whether the client was another government department or from industry. The types of revenue included in the scope of the audit were selected because they are prevalent across NRC and provided an organization-wide perspective. Intellectual property revenues (\$7.5M) will be examined in a separate audit as per the Office of Audit and Evaluation's Risk-Based Audit Plan. In addition, revenues from the lease and use of property, as well as grants and contributions, were not examined in this audit. The audit also did not examine research facilities costing as it was within the scope of the [Audit of Research Facilities Management](#).

The audit was not intended to assess the effectiveness of revenue forecasts or determine the root-cause of the decline in signed contract values.

¹ 2014-15 Annual Financial Statements

3.3 Approach and methodology

The audit was conducted in accordance with generally accepted professional auditing standards of the Institute of Internal Auditors and the standards and requirements set out in the Treasury Board [Policy on Internal Audit](#). The audit criteria were primarily derived from the Government of Canada's [Financial Administration Act](#), Treasury Board's [Guide to Costing](#), NRC's *Pricing Strategy*, *Client Agreement Policy*, and NRC's *Client Agreement Guidelines & Best Practices*.

The audit approach consisted of a series of interviews and discussions, a detailed documentation review, an analysis of signed contract and sales order trends, and a substantive review of sampled transactions. Interviews and discussions were held with key stakeholders in the revenue management process. These individuals included the Vice-President of Corporate Management and Chief Financial Officer, Vice-President of Business and Professional Services, Director General of Business Management Support, Director General of Planning and Reporting Services, Director of Business Support Team, Director of Financial Services, a Portfolio Director of Operations, two Portfolio Comptrollers, two Portfolio Business Advisors, and a Project Manager. The audit criteria can be found in Appendix A while a detailed description of the approach and methodology can be found in Appendix B.

4.0 Audit findings and recommendations

The audit has resulted in a positive assurance. The audit found that overall NRC revenue management framework is adequate. There are, however, opportunities to strengthen the framework design and compliance. As described below, the revenue management framework design “needs improvement” and information for decision making and compliance are assessed as “adequate” (refer to Appendix D for definitions of these ratings). The first recommendation is related to the framework design; when implemented, this will positively impact all three areas assessed.

Table 1 above presents the audit assessment rating by line of enquiry, associated recommendation number(s) and overall audit conclusion.

Management’s response and action plan to address these recommendations is included in Appendix C of this report.

4.1 NRC’s revenue management framework design

The audit examined NRC’s revenue management framework and the degree to which it was designed to ensure successful execution of NRC’s strategy. The audit noted that the revenue management framework needs improvement.

NRC has developed and implemented a revenue focused strategy supported by a revenue management framework. The roles and responsibilities of Business Management Support (BMS), Planning and Reporting Services (PRS), Finance Branch (FB), and Portfolio groups are clearly defined within their areas of operation; however, the interdependencies between each of the groups and expectations for information to be exchanged is not as clear. During interviews with FB staff, it was noted that occasionally a client negotiation will begin before a credit check or a historical accounts receivable review is conducted. However, there is currently no guidance provided on when a credit check should be performed. While roles and responsibilities of the owners of the revenue management framework are clear, integration of information between the key participants could be improved so that key business and information needs are understood and acted upon. Management of clients at the critical checkpoints in the framework is understood and client information is shared and used. However, the key business and information requirements need to be clarified between BMS, PRS, and FB. For example, the establishment of sequentially numbered contracts should be considered so FB can ensure they are aware of all contracts being entered into. It was noted that NRC is using forums known as communities of practice to share successes and ideas which can aid this practice and improve the transfer of critical information.

Additionally, different systems owners results in information not being integrated across the revenue management framework. For example, the current structuring of SAP Project Systems (SAP PS) is established in a way that does not require contract billing milestones to be input into the project structure. Complications have been noted by FB staff that they are not notified in a timely manner to invoice clients. Conversely, complications have also been noted where a project is delayed, but due to lack of

systems integration, billing is sent prematurely. It was noted during interviews with PRS that basic project elements are reviewed for existence and adequacy before the project is released. However, there is no outstanding guidance relating to the use of billing milestones.

At the moment, projects are not monitored after they are released for execution so the only point of review occurs during the planning stage. Information needs to be transferred and shared between the systems and stakeholders and as billing milestones are not required to be built into the project structure, there is a risk that critical information is not available to relevant stakeholders as required. Expectations for monitoring the project from contracting, to project management, to accrual, to invoicing are not defined sufficiently to ensure information continues to be accurately captured and appropriately shared. Changes to projects are the responsibility of the project manager and there is not a standardized approach to notifying BMS when changes occur. BMS is seeking to be more involved when change orders occur to ensure prompt ratification of the statement of work and subsequently, the contract. It was noted during interviews that FB is also not always informed if there is a contract amendment which could impact invoicing. Ensuring that projects are maintained in SAP PS would help ensure key project information is shared across the organization. As no formalized change order procedure exists to address contract amendments, there is an opportunity to design and implement a standardized process to encourage the sharing of information between the project manager, FB, and BMS.

Although it was noted that there are some formal standardized guidance material such as the client agreement guidelines, some training and guidance is not formalized and staff rely on the passing of information from incumbent staff to new staff. This is working well for discussing and establishing best practices but it can lead to inconsistent learning, and through this, a non-standard approach to revenue management. It is understood that this can be a result of the size and complexity of the associated portfolios. However, as a result, inconsistent practices have been observed which contrasts with [NRC's 2013-2018 Strategy](#) calling for consistent policies and practices.

Similarly, project management training and guidance varies at the portfolio level with some operating groups exhibiting robust and well-defined processes. An example of this would be the use of costing templates. A component of the planning phase of a project is the estimation of resourcing required to execute the contract. This estimation generally makes use of costing templates that are developed by FB and posted on NRC's intranet. These templates are used throughout the portfolios but to a varying degree. As a result, NRC is missing an opportunity to reinforce the responsibilities project managers have to ensure a consistent approach to project planning and costing.

NRC is developing a standard revenue management process as part of a Corporate Services Transformation initiative. It will need all stakeholders to be involved if it is to be successfully implemented. It is recognized that due to differences in portfolio size, the organization cannot move to one standard approach but the adoption of common steps would be beneficial in the recording and management of critical information throughout the revenue management framework.

Recommendation 1:

Finance Branch should develop a holistic approach to revenue management that:

- *Involves all parties in development and implementation and;*
- *Organizes key documentation in central repository while restricting access to business confidential information.*

Recommendation 2:

Planning and Reporting Services should develop a formal project change order process.

4.2 Supporting information for decision making

The audit examined whether the information required to make informed decisions was readily available corporately. The audit found that this is performed adequately.

NRC has employed an effective project review system with the PRS group actively reviewing each project being entered into SAP PS to ensure that all fundamental projects aspects are captured. This provides a strong oversight function, ensures projects are established appropriately and that the key information regarding the project is recorded. This is demonstrated by the fact, that of the contracts reviewed, 76% of sampled projects were planned adequately in SAP PS as their planned revenues exceeded their planned costs as per the NRC's pricing strategy. However, it should be noted that the remaining 24% (4/17) were not planned adequately as their planned costs exceeded planned revenues.

This finding was reinforced during the contract reviews carried out as part of the audit. It was noted that 85% of sampled projects are being maintained with regular expenditure postings and are closed after project completion. The remaining 15% (3/19) of sampled projects exceeded their expected completion date and were noted by their project manager or other as being fully complete as of FY2015 year-end, effectively accruing all revenues due from the agreement. One of the projects due for closing continued to have direct expenses applied to the project indicating that work was still ongoing. The remaining two projects saw negligible activity in the past 2 months which indicates, along with the project status provided by the project manager that the projects were unmaintained and should be closed. Keeping projects open after they have been completed increases the risk of accidental expenditure postings to the wrong project.

The use of nBoss has been improving across the organization as noted during interviews with BMS staff, who have plans to continue to monitor the use of the system going forward. However, it was noted in interviews that the use of nBoss is not fully understood across the organization. Some stakeholders view the system as a client management tool to store information about contact with clients and potential sales whereas others see it as a revenue forecasting tool. This can lead to different expectations regarding the information to be entered and results in information varying between nBoss the CRM, and SAP the accounting system. Specifically, nBoss contains potential revenue no matter how likely it is to being contracted versus the accounting

system, SAP, which consists of signed agreements forming contractual obligations. On a positive note, the opportunity to link SAP SD and SAP PS identified in the Audit of Financial Management Control Framework – Revenue has been implemented with contracts being tied directly to their respective projects.

Interviewees also identified that project management competencies vary across portfolios, which can also lead to inconsistent or non-standardized project management practices. However, it has been observed that consistency is improving under the direction of portfolio project management offices coupled with the leadership of BMS who has introduced standardization in pricing and contracting-in.

No recommendation required

4.3 Compliance with Government of Canada and NRC policies and directives

The audit examined whether current revenue management practices are aligned with Government of Canada and NRC policies and directives. The audit assessed that these practices are being performed adequately.

NRC has developed and successfully implemented standard templates for costing and contracting. The costing tools align with the Treasury Board Secretariat's Guide to Costing when used appropriately.

It was noted that 90% of sampled contracts made use of the standard approved contracting-in templates. Minor alterations of general clauses were observed because NRC's contracting-in policy allows for changes in language due to clarifications, or alterations which clearly benefit NRC, or the removal of irrelevant clauses. One of the ten sampled contracts made use of legacy agreement templates which are in the process of being replaced by BMS. During a review of the sampled contracts, one legacy agreement out of ten sampled contracts was found to be renewed without a renegotiation of pricing or calculating the level of effort required to execute the contract using updated labour rates.

In addition, 91% of reviewed contracts were signed in compliance with the delegations of financial signing authority as they relate to contracting-in. Although intellectual property licensing agreements were out of scope, one of the two exceptions that were noted was due to a General Manager signing a technology licensing agreement where the license granted the licensee exclusivity on the property in its field of use. The rights to sign exclusive-use technology licenses are reserved for Vice-Presidents or the President. The second exception was a result of an employee signing on behalf of a Director where they did not have delegated authority to do so.

NRC has defined a cost-plus pricing approach to ensure that projects recover their direct costs. It is understood that some projects are entered into for investment purposes with the aim of generating revenue downstream for the Government of Canada and therefore are partially funded with in-kind contribution from NRC. Currently guidance on how to account for NRC in-kind contributions at the project level is undefined with most parties unsure of the role it plays in reporting.

Forty three percent (3/7) of the sampled transactions marked by their project manager as being fully complete incurred costs that exceeded their revenues. This may be due to a lack of cost planning knowledge or experience within the project management staff. This was reinforced during the review of contracts which identified that costing information is not consistently being developed using the available tools. Seventy eight percent of sampled transactions had accompanying costing documentation where the approved external labour billing rates were used along with the minimum mark-up on cost. However, project managers for the remaining 22% (4/18) of sampled transactions were either not able to provide supporting documentation (3/4) or provided costing where the sum of the calculated level of effort exceeded the value of the contract in addition to having the standard base mark-up on operating and maintenance funds overridden.

Further analysis of these projects was not conducted as substantive testing was limited to the examination of sampled transactions and not the project as a whole. In some cases, the projects examined were solely purposed to execute the sampled agreement. However, 50% of the projects examined for fundamental project management properties planned for both the sampled contract in addition to other sources of revenue which were not examined during this audit.

In addition, it was noted that the Comptroller is not always included in reviewing financial information in a proposed contract, as it is left to the project managers' judgment to ask for assistance. The practice of involving FB in the costing process is only required for projects with costs in excess of \$250K. While Comptrollers may not be capable of assisting with estimating the level of effort required to execute a complex research or technical project, they can provide support by comparing project plans with historical agreements of a similar nature or to validate that standard cost rates are being used. It should be understood that although FB may not be able to, or even be required, to review all cost calculations it should be involved in complex or large dollar values situations.

In addition, FB and BMS staff mentioned in interviews that they are interested in being involved in a periodic review of projects whose actual level of effort exceeded the portfolio's initial estimate to assist in the future pricing of cost-plus contracts. However, at the moment BMS is not using previous experience to adjust their contract pricing.

Recommendation 3:

Business Management Support should improve the layout of standard contracting-in templates while enforcing their use

- *Clearly differentiate between exclusive use technology licensing agreement templates and non-exclusive use using a clear visual indicator*
- *Revisit legacy agreements before they are renewed to ensure that pricing and terms and conditions are renegotiated based on a revised estimation of level of effort using updated cost rates*

Appendix A: Audit criteria by line of enquiry

Line of enquiry	Audit criteria
1. NRC's revenue management framework is adequately designed to support the execution of NRC's strategy	1.1 NRC's revenue management is supported by adequately defined roles and responsibilities. The revenue management model is well understood across the organization.
	1.2 Tools and guidance are available to encourage standardization of revenue project execution. Training, support and guidance are available.
2. Implementation of the NRC revenue framework produces adequate information for decision making	2.1 Revenue generating projects are planned and recorded adequately in SAP PS
	2.2 NRC leverages systems to produce reliable and relevant information for decision making
	2.3 Revenue project initiatives are managed in accordance with NRC's strategy
3. Revenue management is in compliance with NRC and Government of Canada policies and related directives	3.1 Revenue management templates are appropriately used
	3.2 Revenue projects are managed in accordance with the financial signing authority matrix
	3.3 Revenue contracts are managed in accordance with NRC and TBS costing, pricing and risk management principles.

Appendix B: Audit approach and methodology

The audit was conducted using a series of detailed criteria that addressed the audit objective against which the observations, assessments, and conclusions were drawn. Criteria were discussed with audit management in advance of the audit and are presented in Appendix A.

Samples were drawn in the planning stage to calibrate the audit approach. Then a substantive review of a sample of contracts and sales orders originating from the Sales and Distributions module of NRC's financial repository system SAP (SAP-SD) were examined based on their general ledger coding.

After selecting a sample of contracts and orders, the related projects were examined in order to understand the project management functions housed within the research, technical, and corporate business lines which are ultimately responsible for executing the project and therefore earning the revenue. In addition to transactional testing, a review and analysis of relevant revenue management documentation including frameworks, policies, guidelines, process maps, and meeting minutes was undertaken to understand the risks, controls, and governance structures of the audit entities.

The audit addressed the audit criteria as they existed at the time of examination. The audit methodologies were selected to ensure that the root cause of findings was identified. More detail on the individual audit methodologies are provided below:

- Interviews with key NRC staff including Vice-President of Corporate Management and Chief Financial Officer, Vice-President of Business and Professional Services, Director General of Business Management Support, Director General of Planning and Reporting Services, Director of Business Support Team, Director of Sector Financial Services, a Portfolio Director of Operations, two Portfolio Comptrollers, two Portfolio Business Advisors, and a Project Manager
- Review of revenue management documentation such as framework documents, policies, directives, guides, guidelines, flowcharts, and process maps
- Review of a sample of revenue contracts and sales orders, project management module transactions, internal project status documents, and related supporting documentation. A total of 35 transactions were sampled. Fifteen samples were drawn during the planning stage of the audit to calibrate the approach to be used during the conduct stage where an additional 20 samples were drawn
- Live transaction monitoring of various SAP modules and accessing population data for use in analytics
- Analysis of the multi-year master sales contract and sales order data obtained from NRC-FB staff to understand underlying revenue trends and for use in sample selection

Appendix C: Management action plan

Definition of priority of recommendations	
High	Implementation is recommended within six months to reduce the risk of potential high likelihood and/or high impact events that may adversely affect the integrity of NRC's governance, risk management and control processes.
Moderate	Implementation is recommended within one year to reduce the risk of potential events that may adversely affect the integrity of NRC's governance, risk management and control processes.
Low	Implementation is recommended within one year to adopt best practices and/or strengthen the integrity of NRC's governance, risk management and control processes.

Recommendation and priority level	Corrective management action plan and expected implementation date	NRC contact
<p>1. Finance Branch (FB) should develop a holistic approach to revenue management [Priority: MODERATE]</p> <ul style="list-style-type: none"> Involve all parties in development and implementation Organize key documentation in central repository while restricting access to business confidential information 	<p>Finance Branch, through the CST O2C Stream, has been working with Revenue Management Stakeholders to define holistic approach (roles & responsibilities, technological system enhancements and integration requirements, and underlying cradle to grave contract document repository) essential to ensure a robust revenue management framework.</p> <p>Key implementation</p> <ul style="list-style-type: none"> Contracting-In matrix review to ensure appropriate level of accountabilities (BMS & FB) – <i>Expected implementation date: 30 June 2016</i> Mandatory Revenue Management Framework stakeholder training (FB, BMS & PRS) – <i>Expected implementation date: 30 September 2016</i> Essential Revenue Management Framework requirements implemented (FB, BMS, KM) – <i>Expected implementation date: 31 March 2017</i> 	<p>Director General, Finance Branch</p>

Recommendation and priority level	Corrective management action plan and expected implementation date	NRC contact
	<ul style="list-style-type: none"> • Pricing guide & rates published on a secure sight; • Standardized Costing / Pricing Templates; • Contract repository / methodology / framework • Master data standards (nBoss, SAP) <p>CST – Technological enhancements for improved revenue reporting, integration between SD/PS for time & material billing, and customer portal. – <i>Expected implementation date: 30 June 2017</i></p>	
<p>2. Planning and Reporting Services (PRS) should develop formal project change order process [Priority: MODERATE]</p>	<p>PRS will develop a formal project change order process (process) for all types of revenue generating projects at NRC. We will also use this opportunity to look at how this process could be applied to program-sponsored projects with NRC Investment.</p> <p>The process will address the following issues identified in the Audit of Revenue Management:</p> <ol style="list-style-type: none"> 1. The need for a standardized approach to informing BMS of project changes that affect the Statement of Work (SoW)/Contract; 2. The need for a standardized approach to informing FB of changes that affect invoicing. <p>PRS will work with the Common Services Transformation Program, the Project Management Harmonization Group, the Project Management Framework development team (PMUG working group), BMS and Finance to identify and integrate current best practices into a harmonized, formal change order process, which meets the needs of the Project Management community and addresses the issues identified in Audit of Revenue Management.</p>	<p>Director General PRS</p>

Recommendation and priority level	Corrective management action plan and expected implementation date	NRC contact
	<p>The process will incorporate an evaluation of the impact of a change order on:</p> <ul style="list-style-type: none"> • the contract with the client (dates, prices, SoW, terms and conditions, etc.); • billing amounts and/or the schedule of payments; • costing/pricing rates – have the costs/prices changed (e.g. for contract extensions into a new fiscal year?); • contract approval – (e.g. does the new contract have pricing adjustments or licensing clauses that need to be approved or re-approved by GM/VP/President?); • program forecast/budgets; • portfolio resource load/availability; • project viability – (i.e. is the project still viable?); • project validity in the program – (i.e. is the project still within program scope?). <p>In summary, the process will formalize project change by:</p> <ul style="list-style-type: none"> • outlining aspects of the project that could be impacted by a change order; • detailing the processes to follow for each aspect of the project impacted by a change order; • providing the tools, templates and guidance required to evaluate, document and implement the change. <p><i>Overall expected implementation date: 30 September 2016</i></p>	
<p>3. Business Management Support (BMS) should improve the layout of standard contracting-in</p>	<ul style="list-style-type: none"> • Effective immediately, BMS will ensure that when Technology Licensing agreements are put in place – they are clearly differentiated as sub-title in the agreement as to whether the 	<p>Director General BMS</p>

Recommendation and priority level	Corrective management action plan and expected implementation date	NRC contact
<p>templates while enforcing their use [Priority: MODERATE]</p> <ul style="list-style-type: none"> Clearly differentiate between exclusive use technology licensing agreement templates and non-exclusive use using a clear visual indicator Revisit legacy agreements before they are renewed to ensure that pricing and terms and conditions are renegotiated based on a revised estimation of level of effort using updated cost rates 	<p>license is for EXCLUSIVE or NON-EXCLUSIVE USE.</p> <ul style="list-style-type: none"> In parallel – BMS will review and determine the need and value of having separate templates for exclusive vs non-exclusive license agreements. BMS will review and amend the guidelines for the Technology License Agreements to ensure that authority levels are clarified. BMS will work with Finance Branch to review, communicate and publish, in an easily accessible manner, to authorized individuals in the organization, the annual billing rates and modifications as they are updated from time to time. The next iteration of the billing rates should be issued not later than April 30th, 2016. BMS will review the agreement amendment process and ensure that it includes a review of pricing and of the statement of work. BMS will obtain approval for the new process and communicate it accordingly by June 30, 2016. <p><i>Overall expected implementation date: 30 June 2016</i></p>	

Appendix D: Potential overall audit rating definitions

Management attention required

There are significant weaknesses in the design and/or effectiveness of the selected key management controls that require management's attention. Critical practices / processes do not meet the expectations and or key principles described in Government of Canada and NRC regulations, policies and directives. There are significant opportunities for development.

Needs improvement

The design and/or effectiveness of the selected key management controls needs improvement. Some areas of practice / processes meet the expectations and or key principles described in Government of Canada and NRC regulations, policies and directives. There are several opportunities for improvement.

Adequate

The design and/or effectiveness of the selected key management controls needs improvement. Some areas of practice / processes meet the expectations and or key principles described in Government of Canada and NRC regulations, policies and directives. There are several opportunities for improvement.

Strong

The design and/or effectiveness of the selected key management controls is strong. All areas of practice / processes meet the expectations and or key principles described in Government of Canada and NRC regulations, policies and directives. No areas for improvement were identified.