

3 AUDIT OF HR APPLICATION CONTROLS IN SAP R/3 SYSTEM

BACKGROUND

- 3.1 The Province of Nova Scotia implemented SAP R/3 as its corporate financial management and reporting system in April 1997. At that time the Province already had a separate human resources system so the human resources (HR) component of SAP R/3 was not implemented. In April 2005 the Province implemented the HR module of SAP R/3 to replace the former HR system.
- 3.2 In June 2006, the Office of the Auditor General, in partnership with the Department of Finance and the Public Service Commission, contracted with a public accounting firm to perform an audit of the HR application controls in government's SAP R/3 system.

RESULTS IN BRIEF

- 3.3 The auditors of the application controls in the government's SAP HR system reported the following conclusions.
- "Generally speaking, our review indicated that the SAP HR application module is configured to include the appropriate controls over transaction accuracy, validity and completeness; however, some weaknesses have been identified and recommendations for improvement have been provided in our Letter of Recommendations.
 - Given the level of access granted to users within SAP, however, including the number of users who have access to execute incompatible functions within SAP, we conclude that HR SAP-based application controls were not operating effectively throughout the period of anticipated reliance and therefore recommend that they not be relied upon for purposes of the annual audit."

AUDIT SCOPE

- 3.4 Application controls relate to the actual processing of business transactions and data of a specific application, in this case the HR module. The objectives of application controls are to ensure the completeness, accuracy and authorization of processing and the adequacy of management trails.
- 3.5 In contrast to application controls, general controls relate to the technology environment within which computer applications are developed, maintained and operated. The objectives of general controls are to ensure the proper development and implementation of applications, and the integrity of program and data files and computer operations.

- 3.6** The audit objectives for this assignment were:
- to identify SAP HR application controls and SAP HR application control weaknesses; and
 - to conclude on whether the identified SAP HR application controls were operating effectively throughout the period of anticipated reliance.
- 3.7** The period covered by this audit was April 1, 2005 to March 31, 2006.
- 3.8** The scope of the audit focussed on the controls within the HR module including the five sub-modules – Personnel Administration, Organizational Management, Benefits, Time Management and Payroll. The audit coverage also included significant system interfaces between the SAP HR module and other government systems. The audit excluded general controls which were tested separately as part of the CICA Handbook Section 5900 audit for which a qualified opinion was earlier provided on April 6, 2006. (See Exhibit 3.1 of the June 2006 Report of the Auditor General.)

PRINCIPAL FINDINGS

- 3.9** In June 2006 a public accounting firm was contracted to perform an audit of the HR application controls within the government's SAP R/3 system. The HR module was implemented in April 2005. This was the first audit of controls of the HR module and covered the first fiscal year of its operation.
- 3.10** The following conclusions were reported by the auditors in their letter dated July 28, 2006 (see Exhibit 3.1).
- "...Our conclusion on the reliability of SAP-based business process controls is as follows:*
- *Generally speaking, our review indicated that the SAP HR application module is configured to include the appropriate controls over transaction accuracy, validity and completeness; however, some weaknesses have been identified and recommendations for improvement have been provided in our Letter of Recommendations.*
 - *Given the level of access granted to users within SAP, however, including the number of users who have access to execute incompatible functions within SAP, we conclude that HR SAP-based application controls were not operating effectively throughout the period of anticipated reliance and therefore recommend that they not be relied upon for purposes of the annual audit."*
- 3.11** As noted in the above conclusion, the level of inappropriate access granted to users of SAP HR was the primary reason the auditors could not conclude positively on the HR application-based controls.

- 3.12** The auditors identified a total of nine areas of weakness in application controls and categorized them as follows:
- High Risk 3
 - Moderate Risk 5
 - Low Risk 1
- 3.13** The most significant areas of control weaknesses reported by the auditors are consistent with similar weaknesses we reported in June 2006 relating to other SAP audits performed earlier in the year. (See Chapter 3 of the June 2006 Report of the Auditor General). These relate primarily to many users having been granted levels of access to the system in excess of those required to perform their assigned duties. Many instances of inappropriate segregation of certain duties were also identified which increase the risk of unauthorized payments, misappropriation of funds or undetected errors in payroll.
- 3.14** The nature of the weaknesses identified by this audit raise concerns as to whether sufficient focus was placed on security requirements during the implementation of the HR module.
- 3.15** Management at both the Department of Finance and the Public Service Commission have been very supportive in partnering with us to sponsor this audit and have also expressed their commitment to address the reported weaknesses.

Recommendation 3.1

We recommend that management implement appropriate controls to resolve the reported weaknesses in HR application controls in the SAP R/3 system.

CONCLUDING REMARKS

- 3.16** Government's challenge with respect to controls is to ensure that the risks of loss or misuse are appropriately identified and that decisions made about the level of control appropriately mitigate risks on a cost-benefit basis. The goal is not more or too many controls, but rather cost-effective optimization of control against risks.
- 3.17** A government-sponsored project currently is underway to implement the HR component of SAP R/3 for the Nova Scotia Regional School Boards. The results of this audit, including all the specific instances of noted weaknesses, should be taken into account to ensure that the same weaknesses are not implemented in the school boards' HR system.
-

Auditor's Report on HR Application Controls

Exhibit 3.1

We have now concluded our engagement in connection with the audit of HR application controls in the Province of Nova Scotia's SAP system as per the above noted contract and related statement of work. Our conclusion on the reliability of SAP-based business process controls is as follows:

- Generally speaking, our review indicated that the SAP HR application module is configured to include the appropriate controls over transaction accuracy, validity and completeness; however, some weaknesses have been identified and recommendations for improvement have been provided in our Letter of Recommendations.
- Given the level of access granted to users within SAP, however, including the number of users who have access to execute incompatible functions within SAP, we conclude that HR SAP-based application controls were not operating effectively throughout the period of anticipated reliance and therefore recommend that they not be relied upon for purposes of the annual audit.
- We recommend that the OAG identify, test and evaluate compensating controls and procedures that are not reliant upon the SAP application or modules, before a control reliance approach should be taken. Further details on recommended controls to test outside the system have been provided in the working paper file provided to you as part of the audit.

We are pleased to enclose our Final Summary Presentation and Final Letter of Recommendations in connection with this audit. If you have any questions, please do not hesitate to contact us.

PUBLIC SERVICE COMMISSION'S RESPONSE

The Public Service Commission would like to thank the Auditor General for the opportunity to provide comments on Chapter 3, Audit of HR Application Controls in SAP R/3 System of the December 2006 Report of the Auditor General. This audit of the SAP HR module's application controls was jointly funded by the Office of the Auditor General, the Department of Finance and the Public Service Commission in order to identify and remedy any possible system application controls. The audit was not designed nor intended to include a review of any existing manual or compensating controls which were in place to augment application controls.

The period covered by the audit was April 1, 2005 to March 31, 2006 and it was conducted in June of 2006. During the presentation of the results of the audit in late July, 2006 some of the audit findings were questioned by staff of the Department of Finance and subsequent attempts to verify some of the instances of inappropriate access contained in the audit were unsuccessful. That notwithstanding a commitment was made at that time to begin to investigate the audit findings. The Public Service Commission and the Department of Finance are presently working together to address the issues identified by this audit either through the amendment of SAP HR module's application controls or through the implementation of manual or compensating controls where appropriate.