



# **PEOPLESOFT HUMAN RESOURCES MANAGEMENT SYSTEM**

**March 2011**

**Internal Audit Branch**

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## STATEMENT OF ASSURANCE

We have completed the internal audit of the PeopleSoft Human Resources Management System (PeopleSoft). The overall objective of this audit was to review and assess the adequacy of the framework in place for the system's operations, maintenance, and enhancements and to recommend improvements.

The internal audit was conducted in accordance with the Treasury Board Secretariat (TBS) *Policy on Internal Audit* and the Institute of Internal Auditors' *Standards for the Professional Practice of Internal Auditing*.<sup>1</sup> The audit team assessed the management control framework against criteria documented in TBS and departmental policies as well as Control Objectives for Information and Related technologies (CobiT), an information technology (IT) framework and supporting toolset that allows directors to bridge the gap between control requirements, technical issues, and business risks.

In our professional judgment, sufficient and appropriate audit procedures have been conducted and evidence gathered to support the accuracy of the conclusions reached and contained in this report. The conclusions were based on a comparison of the situations as they existed at the time of the audit and against the audit criteria. It should be noted that the conclusions are only applicable for the areas examined.

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<sup>1</sup> The Internal Audit Branch has not undergone an external assessment at least once in the past five years or been subject to ongoing monitoring or to periodic internal assessments of its internal audit activity that would confirm compliance with these standards.

## **EXECUTIVE SUMMARY**

### **OVERALL OPINION**

Management has developed a framework to support the maintenance of the system, identify new system requirements, and communicate changes to end-users. Interfaces with other systems are well managed and PeopleSoft-generated information is matched to these systems. Documentation is readily available for end-users and queries are responded to in a timely fashion. Opportunities for improvements have been identified in the areas of system access and data security and sensitivity. The criticality of PeopleSoft also needs to be assessed and a business continuity plan developed for the system.

### **BACKGROUND**

The Department of Justice manages the human resources (HR) information pertaining to its workforce through the PeopleSoft Human Resources Management System (PeopleSoft) and uses information generated from the system to support the development of HR programs and policies and to prepare departmental reports. The system also allows employees to manage their leave electronically.

The Human Resources and Professional Development Directorate (HRPDD) at HQ manages PeopleSoft, while Information Management Branch (IMB) provides technical support for the system.

The planning and on-site examination phases of this audit were carried out between May and September 2010 and covered practices and procedures pertaining to all activities relating to PeopleSoft in the Department.

## **MANAGEMENT FRAMEWORK**

### **Roles and Responsibilities**

The respective roles and responsibilities of the HR Systems Group and IMB Corporate Systems in supporting PeopleSoft are well defined. However, the Service Level Agreement governing the services provided by IMB needs to be updated to confirm the level of services required.

We found that business analysts' job descriptions should be reviewed to accurately reflect their duties.

### **System Enhancement Plan**

HR Systems Group staff meet annually with HRPDD directors and those in the regions to discuss system requirements. In our view, the HR Systems Group has developed an effective system enhancement plan.

### **Budget**

The budget process is well documented and expenses are tracked over the year. The budget is sufficient to ensure maintenance of the system. However, little monetary resources remain to provide services to end-users, nor are funds available for special technical projects. Consequently, when a special project is given priority, the Director, HR Systems Group submits a request for additional funding. The timing of release of these funds will be the deciding factor as to whether the project can be completed within the fiscal year.

### **System Performance**

Continuous performance of the system is ensured through the procedures developed and implemented by the HR Systems Group and the redundancy built into the PeopleSoft infrastructure. The HR Systems Group generates individual reports on certain aspects of system performance, such as downtime and restore time. However, it has not developed a report that could be used by management to assess the overall operational performance of the system.

## **Change Controls**

IMB Corporate Systems is responsible for implementing new versions/upgrades of the system. We reviewed the Implementation Checklist to document the process and found it to be accurate. However, the document does not include an approval signature and date.

## **System Documentation**

Technical documentation on PeopleSoft is integrated into the system and readily available to end-users on the departmental Intranet.

The HR Systems Group is developing an Operations Guide that provides details on the management framework governing the system and information on how to get help when needed. The Operations Guide is an excellent initiative to gather relevant user information into one document and users will benefit from gaining access to it as soon as it is completed.

## **Backups and Business Continuity Planning**

While data backups are completed on a regular basis and have been tested for restoration, application backups are done irregularly and two methods exist for restoring the application. The application backup and restore process needs to be reviewed.

During the audit, interviewees in both IMB Corporate Systems and HR Systems Group were unable to provide a business impact analysis (BIA) and a business continuity plan (BCP) specifically for PeopleSoft. However, in the IMB BCP PeopleSoft is identified as a critical system that should be restored within a maximum of two days. The criticality of PeopleSoft needs to be assessed through a BIA, and a BCP needs to be developed for the system.

## **System Access and PeopleSoft Roles**

The PeopleSoft Security and Access Administrator is responsible for controlling access to the system by creating user accounts in accordance with procedures established by the HR Systems Group. User access is usually limited to a discipline (e.g. staffing, classification, or employment equity) and requires a supervisor's approval. When an employee leaves the Department, notification is sent to the Administrator who then deletes the account.

We examined a sample of files to validate the user account creation process. We found that 20% of the sample files did not have proper supporting documentation for creating an account and/or

providing access to a specific discipline. Also, there was no documentation to confirm that the Administrator periodically reviews the active accounts for regular usage.

Furthermore, from interviews we found that the HR Systems Group needs to enhance existing procedures supporting access controls to strengthen the confidentiality and integrity of HR data.

### **Data Sensitivity and Security**

A Privacy Impact Assessment (PIA) and a Threat and Risk Assessment (TRA) need to be completed for PeopleSoft, and the Certification and Accreditation (C&A) needs to be updated. The Department completed a TRA in 2006 in order to achieve departmental compliance with the Treasury Board Management of Information Technology Security (MITS). The C&A of PeopleSoft was valid until December 31, 2008.

We reviewed information in both the TRA and the C&A and found that PeopleSoft data has been designated as either “Protected A” or “Protected B” in these documents. From our interviews with directors in HRPDD, we found an inconsistent understanding of how HR data should be labeled. The appropriate protection level for all HR data needs to be identified and communicated to staff.

### **Data Integrity**

HRPDD has developed a system to validate the transaction entry process and data integrity, but should review the appropriateness of the error rate threshold.

## **SYSTEM FEATURES**

### **System-Generated Information**

The information generated from PeopleSoft supports management in their HR-related decisions and is used by the Department to complete special projects. PeopleSoft functionality for report formatting requires some users to use Microsoft Excel and other parallel systems to perform some analysis and generate some reports. In our view, this is an acceptable practice.

## **Security Features**

PeopleSoft has a built-in log function that directs messages to the Database Administrator (DBA). The logging feature, however, does not separate messages by type, requiring the DBA to manually scan the log in order to review and address security messages. This is time-consuming, and as a result, information on security breaches is not reviewed. At present, the Department does not have an automated solution to review the logs. PeopleSoft logs need to be monitored for security breaches.

## **INTERFACES WITH OTHER SYSTEMS**

As part of its corporate responsibilities, HRPDD is responsible for updating HR-related information into various systems owned by either PWGSC, PSC, or TBS. There are currently system interfaces between PeopleSoft and four other external systems:

- Regional Pay System (RPS)
- Employment Equity Database (EEDB)
- Position Classification Information System (PCIS)
- Departmental Staffing Activity Information System (DSAIS)

Interfaces with these systems are well managed and the information produced by PeopleSoft is matched to the information generated from the other systems to ascertain accuracy and validity.

## **INTERFACES WITH END-USERS**

### **Documentation and Training**

PeopleSoft internal system documentation and the documentation available on the Intranet provide sufficient information for users to navigate through the system and complete basic training on the system.

The HRPDD Data Integrity Unit monitors the data entry error rates of HR assistants. When error rates are greater than 20%, the supervisor of the HR assistant responsible is advised and is then charged with investigating the reasons for the high error rate and taking corrective action. We found that the data entry error rate of HR assistants was significant (over 20%) and not always consistent from one year to the next. In our opinion, a 20% error rate is too high a threshold. The reasons for these errors need to be determined and consideration given to providing additional training to reduce the error rate.

## **Technical Support**

The HR Systems Group has implemented tools to track problems encountered by PeopleSoft users. The most recent version of PeopleSoft registers, classifies, prioritizes, and tracks problems with the system from start to finish. A problem tracking software is used to create reports on open items and provide statistical information such as counts by type, priority, and location of problem.

From our examination of the reports addressing outstanding issues and open requests over a set period of time, we conclude that when an issue can be resolved, it is resolved within a reasonable time. In our view, a periodic review of the outstanding problems would allow management to develop an action plan to resolve these issues on a timely basis.

## **Communications with Users**

The HR Systems Group has implemented tools and procedures to ensure that PeopleSoft-related information is communicated to end-users on a timely basis.

*The management responses to the recommendations contained in this report were provided by the Director General, Human Resources and Professional Development Directorate.*

# **1. INTRODUCTION**

## **1.1 Background**

The Department of Justice employs approximately 5,460 employees located at headquarters (HQ) in Ottawa and in six regional offices across the country. Staff are also co-located in departmental legal services units (LSUs) in approximately 30 other federal departments. The Department manages the human resources (HR) information pertaining to this workforce through the PeopleSoft Human Resources Management System (HRMS) (referred to in this report as PeopleSoft).

PeopleSoft records and provides information to assist in managing, developing, implementing, and advising on a wide variety of human resources management programs and policies, including those in the areas of staffing, classification, labour relations, compensation, employment equity, HR planning, and official languages. The system also provides self-service functionality to end-users (e.g. leave administration). PeopleSoft information is further used to prepare reports for departmental directors and central agencies.

The Human Resources and Professional Development Directorate (HRPDD) at HQ manages PeopleSoft, while Information Management Branch (IMB) provides technical support. Regional HR sections enter their own data into the system and receive functional direction from the HRPDD. Within the HRPDD, the HR Systems Group, which is headed by the Director, is responsible for managing the PeopleSoft help line and developing business requirements for proposed changes to the system. In IMB, a team of IT specialists from Corporate Systems, Application Development Support in Business Support, Applications and Services (referred to in this report as IMB Corporate Systems) provides technical support to the HR Systems Group. This includes, but is not limited to, upgrading to new versions of PeopleSoft, technical testing on the IT platform, and developing new modules to interface with PeopleSoft.

The following key risk factors were identified in selecting PeopleSoft for audit: accuracy of data entry, timeliness and integrity of information for reporting, impact on decision making, and appropriateness of linkages with other systems.

## **1.2 Audit Objectives and Scope**

The overall objective of this audit was to provide assurance that the management framework in place for the PeopleSoft: system is effective.

The scope of the audit focused on the following:

- the framework for the management of human resources information (such as operations, training, leave, and PREA) at HQ and in the regions for PeopleSoft;
- the controls in place to ensure the accuracy and integrity of information;
- the completeness, reliability, timeliness, and utility of information produced for decision-making and reporting purposes;
- the budgetary allocations for the operations, maintenance, and enhancements to the system;
- the management of resources assigned to the system the security measures for safeguarding information;
- the extent to which the system meets user requirements;
- training and technical support for users;
- PeopleSoft interfaces with other departmental systems;
- linkages with HQ and regional PeopleSoft users.

The planning and on-site examination phases of this audit were carried out between May and September 2010 and covered practices and procedures pertaining to all activities relating to PeopleSoft in the Department at HQ and in the regional offices.

Details on the audit methodology are outlined in Appendix A.

## **2. OBSERVATIONS – MANAGEMENT FRAMEWORK**

### **2.1 Follow-up on Previous Audit of PeopleSoft**

The Department's Internal Audit Branch conducted a previous audit of PeopleSoft in 2003 to assess, among other things, the reliability and integrity of the data processed and stored in the system, the adequacy of user training, and the adequacy of access controls. The audit concluded that staff were not sufficiently aware of the impact of errors; that there were few written procedures for the data entry functions of the system; and that sector administrators and regional offices made little use of PeopleSoft. Furthermore, the audit found that although there was good on-site support for the system at HQ, support was inadequate in the regional offices.

As part of the current audit objectives, the audit team assessed some of the same controls that were reviewed in the previous audit. Consequently, the team was able to follow up on the major recommendations of the previous audit and has included the results of this follow-up in the appropriate sections of this report.

### **2.2 Roles and Responsibilities**

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**The respective roles and responsibilities of the HR Systems Group and IMB Corporate Systems in supporting PeopleSoft are clearly defined.**

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As noted earlier, the HR Systems Group in HRPDD and Corporate Systems in IMB both have responsibilities for PeopleSoft. The HR Systems Group, which comprises business analysts, functional analysts, a Web site coordinator, and a Web site publisher, is responsible for managing the PeopleSoft help line and developing business requirements for proposed changes to the system. Business analysts in IMB Corporate Systems are responsible for addressing the technical components of proposed changes to the system.

We found that proposed changes are supported by a well-documented change management process that includes an investment proposal for each requested change. Both the HR Systems

Group and IMB Corporate Systems are required to sign off prior to implementing a new version of the system.

It is the opinion of the audit team that roles and responsibilities of both groups are well defined.

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**The Service Level Agreement (SLA) needs to be updated to confirm the level of services required.**

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The services IMB provides to the HR Systems Group are governed by a Service Level Agreement (SLA) that provides for the development, maintenance, and operational support of the system as well as the preparation of a Statement of Sensitivity (SOS)<sup>2</sup> and a Threat and Risk Assessment (TRA) to be completed every two to three years. The current SLA was signed in 2001-02. At the time of the audit, neither the SOS nor the TRA had been completed. The SLA needs to be updated and the services provided redefined, if necessary.

Recommendation and Management Response

1. It is recommended that the DG, HRPDD ensure that the SLA with IMB is updated and the services redefined if necessary. (Medium Risk)<sup>3</sup>

Agreed. As referenced in Section 2.5 of this document, the SLA ‘between the HR Systems Group and IMB identifies the terms and conditions related to the services provided by IMB and addresses such things as the availability of IMB staff to service the system, the acceptable maximum downtime for system updates, and the restore time in case of a disaster. IMB has also signed operational level agreements (OLAs) with an outside supplier for infrastructure components, including the system network, the Help Centre, and on-site work stations. The audit team interviewed a variety of users in different positions to assess their level of satisfaction with the performance of the internal and external service providers. All users indicated their satisfaction with the response time and the level of service.’ In addition, the audit findings confirmed that the roles and responsibilities for the members of PSoft team (both functional and technical) are clearly defined. With the aforementioned in mind, the SLA will be reviewed and updated by December 31, 2011 and will be communicated as appropriate. Completion date: December 31, 2011.

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<sup>2</sup> A Statement of Sensitivity is a description of the confidentiality, integrity, or availability requirements associated with the information or assets stored, processed, or transmitted by an IT system.

<sup>3</sup> The Risk Assessment Guidelines for Recommendations are found in Appendix B.

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**There is a need to review the business analysts' job descriptions to address the overlap of duties of the business analysts in the HR Systems Group and IMB Corporate Systems.**

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The audit team reviewed job descriptions of staff in both the HR Systems Group and IMB Corporate Systems to determine if the generic job functions reflect the duties performed by the employees of each unit. Our review of the organizational structure of the HR Systems Group and IMB Corporate Systems confirmed that business analysts are present in both groups. We found that there is a need to clarify the business analysts' duties described in their job descriptions. Nonetheless, the business analysts in both groups have informally defined their respective responsibilities: the IMB Corporate Systems business analysts address technical issues, while the HR Systems Group business analysts address business issues.

The HR Systems Group is currently undergoing an organizational design and classification review exercise. It is our opinion that this would be an appropriate time to make corrections to the business analysts' job descriptions.

Recommendation and Management Response

2. It is recommended that the DG, HRPDD, in consultation with the Manager, HR Systems, IMB Corporate Systems, ensure that the business analysts' job descriptions are reviewed to accurately reflect their duties. (Low Risk)

Agreed. As referenced earlier in this report, the roles and responsibilities of the HR Systems Group and IMB Corporate Systems are clearly defined. The CS employees within the Technical Team analyze business requirements that have been gathered and documented by the business analysts within the HR Systems Team in order to determine the technical impacts, design options, etc. As such, there is no overlap or duplication of roles. However it is recognized that the current work descriptions require adjustment. The IMB Corporate Systems Group will be implementing the government-wide endorsed CS generic job descriptions this fiscal year. This will serve to address this recommendation. The work descriptions for the business analysts within the HR Systems Group are in keeping with those used in government as part of the broader shared systems initiative for PeopleSoft. Completion date: March 31, 2012.

## **2.3 System Enhancement Plan**

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### **The HR Systems Group has developed a system enhancement plan.**

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HR Systems Group staff meet with the directors in HRPDD and those in the regions on an annual basis to discuss their system requirements for the upcoming year and the level of priority attached to each identified requirement. The HRPDD directors also correspond with all clients, requesting that they identify requirements for new HR information that may necessitate changes to PeopleSoft. The HR Systems Group subsequently prepares an annual budget that includes line budget items (e.g. training, translation, supplies, and Government of Canada HRMS Program Centre<sup>4</sup> maintenance and software upgrades) and incorporates into the budget the user-identified requirements, if funds are available.

The audit team is of the opinion that the HR Systems Group has developed an appropriate systems enhancement plan.

## **2.4 Budget**

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### **The budget process is well defined and tracking of expenses over the year is adequate.**

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The Director, HR Systems Group prepares the annual budget for PeopleSoft, sharing tracking responsibilities with the Manager, HR Planning and Employment Equity and HR Systems. The audit team examined the budget for fiscal year 2009-10 and found that it included the appropriate type of expenses such as system support, consulting services, travel, and training. The approved budget for 2009-10 was \$327,802 with actual expenditures incurred amounting to \$309,440 at the time of the audit.

### **Release of surplus funds late in the year makes it difficult for the HR Systems Group to complete special technical projects within the fiscal year.**

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We were told that while the current budget of \$327,802 is sufficient to cover the costs of maintaining the system, no funds are available for special technical projects. Consequently, when

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<sup>4</sup> Program Centre (also known as “Cluster”): The PWGSC Shared System Initiative provides services to departments and agencies that have clustered into five different groups around common software products (PeopleSoft being one of the products). The Program Centre maintains the core of PeopleSoft, supports training, and resolves issues around the system application.

one of these special projects is given priority, the Director, HR Systems Group submits a request for additional funding, typically in the spring of each year. If approved, the funds are normally released in the fall.. We were told that access to the funds late in the year may result in projects being completed in the following fiscal year. For example, the HR Systems Group identified a project to be completed in fiscal year 2010-11 (i.e. Business Intelligence (BI) project) that will require funding in the amount of \$174,504 to complete. At the time of the audit, only a sum of \$59,974 had been received to support the project. The HR Systems Group had no indication of when the remainder of the funds would be forthcoming. Unless funds are released quickly, we were advised that it is unlikely the project will be completed within the fiscal year. Resources currently available for the project may not be available in the next fiscal year.

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**The current budget is sufficient to ensure maintenance of the system but leaves little monetary resources to offer other services to end-users.**

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The audit team requested budgets from prior years in order to analyze the types of expenses incurred over time to support the system. The HRPDD provided budget information dating back to fiscal year 2002-03. A comparison of the budgets from 2002-03 to 2009-10 showed that the amount paid for PeopleSoft maintenance had increased over these years, while the overall budget had decreased. Maintenance costs increased from \$124,325 in 2002-03 to \$241,979 in 2009-10 and represented 73% of the overall budget in 2009-10. Program Centre costs also increased significantly since 2002-03 from \$50,840 to \$102,361 and represented 32% of the total budget in 2009-10. We were told that the allocation of funds to maintenance has left little monetary resources to provide other services to users, such as training and printing of updated user manuals.

## **2.5 System Performance**

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**Procedures have been developed and implemented to ensure the continuous performance of the system.**

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The HR Systems Group has developed and implemented procedures to ensure the availability of PeopleSoft to end-users. The SLA between the HR Systems Group and IMB identifies the terms and conditions related to the services provided by IMB and addresses such things as the availability of IMB staff to service the system, the acceptable maximum downtime for system updates, and the restore time in case of a disaster. IMB has also signed operational level agreements (OLAs) with an outside supplier for infrastructure components, including the system network, the Help Centre, and on-site work stations. The audit team interviewed a variety of

users in different positions to assess their level of satisfaction with the performance of the internal and external service providers. All users indicated their satisfaction with the response time and the level of service.

It is the audit team's opinion that the HR Systems Group has implemented adequate procedures to ensure the continuous performance of the application.

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**The HR Systems Group has not developed a report that provides management with relevant data to assess the overall operational performance of the system.**

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We reviewed the "Operations Report for DOJ PeopleSoft" and found it to be very technical. The report provides information on individual system components such as availability, CPU utilization, and memory utilization, but it does not report on response times. In addition, the language and content of the report is so highly technical that we were unable to determine the specific performance measurement information for PeopleSoft that management and users require. The report shows operational activity only by hardware system name without identifying whether the system contains the PeopleSoft application, PeopleSoft print services, PeopleSoft database, or whether the system pertains to a specific region or the Department as a whole. The report also does not explain the implications of the various activities. For example, what are the performance implications when the total number of disk transfers exceeds 120 million? Or, what are the performance implications when the memory utilization exceeds a certain threshold (e.g. 70%, 80%)?

The HR Systems Group should be able to generate an overall report on the performance of certain aspects of the system (e.g. availability, reliability, and response time). This information would be useful for understanding the negative impacts when the system is not operational. However, HR Systems Group has not developed a global report that would summarize all information, thereby providing relevant data to management on the overall performance of the system. It is the auditors' opinion that the preparation of such a report would help management in its overall assessment of the system.

### Recommendation and Management Response

3. It is recommended that the Senior Director, Business Support, Applications and Services ensure that an overall performance report is prepared that provides relevant data on PeopleSoft to assist management in its overall assessment of the system. (Low Risk)

Agreed. The Senior Director, Business Support, Applications and Services (BSAS) will communicate with management to determine needs, modify the existing report, as appropriate, to respect these needs, and ensure that they are communicated regularly and that issues are addressed in an efficient manner. Completion date: By March 31, 2012 and ongoing thereafter.

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### **Redundancy is built into the PeopleSoft infrastructure to ensure continuous performance of the system.**

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Redundancy is built into the PeopleSoft infrastructure to ensure continuous performance of the system. There are currently two each of the application servers, web servers, and database servers, thereby ensuring that a system failure at one point of entry does not affect the overall performance of the system: when one server breaks down, the second one kicks in.

It is the audit team's opinion that the current infrastructure supports the continuous performance of the system.

## **2.6 Change Controls**

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### **The Implementation Checklist needs to be updated to include an approval signature and date.**

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IMB Corporate Systems is responsible for implementing new versions/upgrades of the system and completes an Implementation Checklist to document the process. The audit team reviewed the Implementation Checklist completed for the version 8.9 implementation and found it to be accurate. However, we noted that the document does not include an approval signature and date. It is management's responsibility to ensure that documentation supporting system changes is signed by the appropriate authority. This procedure is necessary to validate the process. It is therefore important that the Implementation Checklist be updated to include this information.

Once IMB is ready to move a test version into a production environment, an Upgrade Status Form is completed and signed. Our examination of the Upgrade Status Form produced for the version 8.9 testing found the document to be accurate and appropriately signed.

#### Recommendation and Management Response

4. It is recommended that the Senior Director, Business Support, Applications and Services ensure that the Implementation Checklist is updated to include an approval signature and date. (Medium Risk)

Agreed. The Senior Director, Business Support, Applications and Services (BSAS) will ensure that the Implementation Checklist is updated to include an approval signature and date and that the related change and release management processes are updated accordingly. Completion date: By March 31, 2012.

## **2.7 System Documentation**

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**The HR Systems Group is in the process of developing a procedures manual that will complement the technical guide currently available through PeopleSoft.**

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The technical documentation on PeopleSoft is an integral part of the system and is accessible to users on JUSnet. As part of additional documentation available to system users, the HR Systems Group is currently developing a procedures manual (HR Systems Group - Operations Guide) that provides details on the management framework governing the system and information on how to get help when needed. The Operations Guide, which is in a draft form dated March 2010, provides detailed information on the following topics:

- roles and responsibilities of the operational team
- communication tools
- guidelines and procedures for using the system
- documenting issues
- security issues
- training

The Operations Guide is an excellent initiative undertaken by the HR Systems Group to gather relevant user information into one document. It is our opinion that users will benefit from gaining access to it as soon as it is completed.

#### Recommendation and Management Response

5. It is recommended that the DG, HRPDD ensure that the Operations Guide is finalized and provided to users as soon as it is completed. (Low Risk)

Agreed. The HR Systems Team recognizes the need to have all processes and procedures that are currently used to effectively maintain the application documented and made known to the ever-increasing user community. The work in relation to the development of an Operations Guide is nearing completion and will be finalized, communicated to all users, and made available through HR and You. Completion date: By December 31, 2011.

## **2.8 Backups and Business Continuity Planning**

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### **Data backups are done on a regular basis and have been tested for restoration.**

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Data backups are done on a regular monthly basis and transmitted to two separate locations for safekeeping. The backups are sent to the departmental archives in tape form and retained for a period of one year. We were told that the process for restoring data is in place and has been tested successfully.

### **There is a need to review the restore processes for the PeopleSoft application and determine which process is most reliable.**

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There are two different methods in place for restoring the PeopleSoft application. The first method creates application backups as server images: the process copies the existing application to a second server and this copy becomes available when the application on the main server fails. We were told that application backups are not scheduled regularly and are not automatically done when updates/upgrades to the system are completed. Consequently, application backups could be out-of-date when the system needs to be restored from the backup image.

A second method of restoring the application exists. The Data Base Administrator (DBA) has developed a guide that details a system restore process that can be completed in approximately one day.

Management should review these processes to determine whether both methods are necessary and reliable. In our opinion, two methods of restoring the same application could lead to confusion, especially when the best application restore solution has not been determined.

#### Recommendation and Management Response

6. It is recommended that the Senior Director, Business Support, Applications and Services review the restore processes for the PeopleSoft application to determine which process is most reliable. (Medium Risk)

Agreed. The HR Systems Group and the Senior Director, BSAS recognize the criticality of effective system restore processes and acknowledges the need for application server backups, which are required when the PeopleTools or operating systems are upgraded. The Senior Director, BSAS will review the current restore processes with a view to determining the best option. This will be part of a joint effort with the Technology Services Division (TSD) of the Information Management Branch to incorporate in the disaster recovery process for the Department. In addition, this step/requirement will be added to the DBA procedures prior to next PeopleTools/operating systems upgrade, currently scheduled for fiscal 2012/13. Completion date: By March 31, 2012.

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#### **The criticality of PeopleSoft needs to be assessed and a business continuity plan completed.**

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During the course of the audit, interviewees in both HR Systems Group and IMB Corporate Systems were unable to provide a business impact analysis (BIA) and a business continuity plan (BCP) for PeopleSoft. However, in the IMB BCP, PeopleSoft is identified as a critical system that should be restored within a maximum acceptable delay of two days. The Guide to Business Continuity Planning in the Department of Justice states that a BIA and a BCP must be completed for all essential departmental functions and that the BCP should be tested every two years.

While there is an agreement with Public Works and Government Services Canada (PWGSC) to have access in case of an emergency to some off-site infrastructure (i.e. hardware and operating system) to run PeopleSoft, no BCP is in place for restoring the PeopleSoft system.

### Recommendation and Management Response

7. It is recommended that the DG, HRPDD ensure that the criticality of PeopleSoft is assessed through a BIA, and that a BCP is completed for PeopleSoft. (Medium Risk)

Agreed. HRPDD and the IMB will work in collaboration to ensure that the assessment and plan are completed in conformity with the department's guide to business continuity. Completion date: By March 31, 2012

## **2.9 System Access and PeopleSoft Roles**

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### **User access privileges have been granted without the appropriate supporting documentation.**

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To secure the confidentiality of HR data, the HR Systems Group has developed procedures to control access to the system. The PeopleSoft Security and Access Administrator (Administrator) creates user accounts in accordance with the procedures described in the draft Operations Guide. User access is usually limited to a discipline (e.g. staffing, classification, or employment equity) and must have a supervisor's approval. When an employee leaves the Department, the Administrator, who is advised by either phone or email, subsequently deletes the employee's user ID.

In order to validate the account creation process, the audit team examined the forms granting permission for access to PeopleSoft. At the time of the audit, the system had a total of 5,775 PeopleSoft users<sup>5</sup>, 421 of whom were HR users and 5,354 who were non-HR users. The audit team verified that the access form was signed by the appropriate authority and that the PeopleSoft roles<sup>6</sup> granted were appropriate for the user's position and responsibilities.

From the sample of files selected, the audit team found that 20% of the files examined did not have on file the proper supporting documentation to create the accounts and/or assign specific roles. Furthermore, we found that while the system permits online completion of the access request form, some staff still complete the form by hand and forget to provide their supervisor's

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<sup>5</sup> The Department of Justice has 5,460 employees. An employee can have more than one PeopleSoft user ID if the employee performs more than one function in PeopleSoft. For example, an employee can have one user ID for processing leave requests and one user ID for another PeopleSoft process.

<sup>6</sup> Roles are objects that allow or link user profiles to specific permitted information within PeopleSoft.

name. While we found that in all cases a supervisor had signed the manually completed form, the signature was often illegible and could not be matched to a name.

### Recommendation and Management Response

8. It is recommended that the DG, HRPDD ensure that the creation of system access privileges is supported by the appropriate documentation. (Medium Risk)

Agreed. The HRMS contains both Protected A and Protected B data and as such, it is imperative that we have the appropriate safeguards in place to ensure the protection of this data. The process referenced above by the Audit Team was implemented in 2010 with this imperative in mind. The process in place requires that all requests for system access be initiated by the employee's responsible manager through the completion of the HRM System Access Request Form. This Form must be completed electronically and submitted by the responsible manager. Given the Protected B designation of certain data elements, a "restricted" access process has been put in place that requires a second-level approval by the Corporate Owner.

As such, the HR Systems Group has a process in place to ensure that the system access privileges are supported by the appropriate documentation, however, it is recognized that further enhancements to this process can be made. As such, the HR Systems Team will undertake a comprehensive review of all existing PeopleSoft access groups and user profiles and will establish a cyclical schedule to ensure that this review occurs on a regular basis. The aforementioned Operations Manual provides detailed information on the Access Privilege Process and reiterates the responsibilities and accountabilities of those employees who have been granted access. The publication of this Guide will serve to reinforce the importance of safeguarding the integrity and confidentiality of HR data. Completion date: December 31, 2011.

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**The HR Systems Group needs to enhance existing procedures supporting access controls to strengthen the confidentiality and integrity of HR data.**

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During our interviews with the PeopleSoft Security and Access Administrator to discuss the account creation process, we were informed of the following issues that have an impact on HR data confidentiality and integrity:

- There is no system in place for advising the Administrator when people transfer jobs within the Department. As a result, someone could transfer out of HR into another area and retain their HR access privileges.
- There is no system in place to record an expiry date on temporary additional access related to acting periods. Therefore, an individual could retain the additional access after the acting assignment is over.
- HR staff have access to all employee records, whether in the regions or at HQ. The reason for providing this overall access privilege lies in the practices followed by the Department when transferring an employee from one organization or region to another. We were told that the HR office in the “sending” region typically does not send the HR information promptly to the “receiving” region. This work is considered low priority or not the responsibility of the sending office.

These issues need to be addressed.

### Recommendation and Management Response

9. It is recommended that the DG, HRPDD ensure that existing procedures supporting access controls are enhanced to strengthen the confidentiality and integrity of HR data. (Medium Risk)

Agreed. The HR Systems Group had commenced work to strengthen the existing procedures related to access controls to ensure the confidentiality and integrity of HR data. In addition to the work referenced above; the HR Systems Group will further enhance the process which currently requires managers to inform us of changes within respective areas and of the resulting changes in access requirements by:

- developing a monthly report that tracks all internal movement of employees with access privileges to the application. HR Systems will use this report to initiate a communication with the user and new supervisor to confirm the access privileges required to perform functions in the new role if this has not been initiated by the supervisor. These access privileges will be documented and signed off and reviewed as part of the ongoing process referenced above;
- creating shared folders with limited access within the HR Systems Team to store completed documentation, and supporting information for each user account.

Completion date: Work has commenced and will be completed by December 31, 2011.

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### **A periodic review of all active user accounts needs to be undertaken and an overall account status report produced.**

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HR personnel periodically review PeopleSoft data. For example, we found that on a quarterly basis the HR advisors working within sensitive disciplines (e.g. awards, labour relations, and performance pay) review information within the modules for accuracy. We also found that the Security and Access Administrator monitors all non-Justice employees<sup>7</sup> who have PeopleSoft user IDs. However, there was no documentation to confirm that the Administrator periodically reviews all active user accounts to determine whether the users are regularly using the system. In order to achieve better control over system access privileges, the Administrator needs to undertake a periodic review of all active user accounts and produce a status report.

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<sup>7</sup> Client department employees are given access to PeopleSoft to administer leave for Justice employees located in legal services units (LSUs). An LSU manager must sign the request-for-access form.

### Recommendation and Management Response

10. It is recommended that the DG, HRPDD ensure that all active user accounts are periodically reviewed and an overall account status report is produced. (Low Risk)

Agreed. As noted in the management responses to Recommendations 8 and 9, a process is being implemented to ensure periodic reviews of access privileges for all users. Completion date: March 31, 2012.

### **2.10 Data Sensitivity and Security**

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#### **A Privacy Impact Assessment and a Threat and Risk Assessment need to be completed for PeopleSoft.**

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We were told that the Program Centre completed a Privacy Impact Assessment (PIA) for PeopleSoft some time ago, but HRPDD could not provide us with the actual timeframe or a copy of the PIA.

The Department completed a Threat and Risk Assessment (TRA) in 2006 in order to achieve departmental compliance with the Treasury Board Management of Information Technology Security (MITS). We were told that both IMB Corporate Systems and the HR Systems Group recognize that TRAs should be completed as soon as possible.

### Recommendation and Management Response

11. It is recommended that the DG, HRPDD ensure that a Privacy Impact Assessment and a Threat and Risk Assessment are completed. (Medium Risk)

Agreed. HRPDD in collaboration with IMB will immediately initiate the steps to secure the services of experts to undertake a Privacy Impact Assessment and a Threat Risk Assessment in order to ensure compliance with the Treasury Board Management of Information Technology Security (MITS., Completion date: By March 31, 2012.

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#### **The HR Systems Group needs to update the Certification and Accreditation of PeopleSoft.**

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The Certification and Accreditation (C&A) of PeopleSoft was valid until December 31, 2008. The C&A needs to be updated to ensure the continued security of the system.

Recommendation and Management Response

12. It is recommended that the DG, HRPDD ensure that the Certification and Accreditation of PeopleSoft is updated. (Medium Risk)

Agreed. HRPDD in collaboration with the IMB will take the necessary steps to ensure that the Certification and Accreditation of PeopleSoft is updated and completed by March 2012.

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**The appropriate protection level for all HR data needs to be identified and communicated to staff.**

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We reviewed information in the 2006 Threat and Risk Assessment and the 2008 Certification and Accreditation document and found that PeopleSoft data has been designated as either “Protected A” or “Protected B” in these documents. We also reviewed the Department’s Guide to the Transmission, Storage and Destruction of Protected and Classified Information and found that salary information has been designated as “Protected A”. Based on our review, it is our understanding that all information in the system should be designated “Protected B”.

From our interviews, we found that some directors in HRPDD understand that all PeopleSoft data should be “Protected B”, while others think that only some should be “Protected B” and the rest “Protected A”. In our view, these inconsistencies may lead to the incorrect designation of certain HR data and thereby reduce its protection level.

Recommendation and Management Response

13. It is recommended that the DG, HRPDD ensure that the appropriate protection level for all HR data is identified and communicated to staff. (Medium Risk)

Agreed. The PeopleSoft HRMS is the government-endorsed application for HR Management. The Government of Canada version of the PeopleSoft HRMS is maintained by the Program Centre housed within PWGSC. The Program Centre has identified appropriate security designations for the modules licensed by the Government of Canada. Responsibility for access controls is left to the discretion of each government department

utilizing the application taking these security designations into consideration. As referenced above, both the 2006 Threat and Risk Assessment and the 2008 Certification and Accreditation documents designate PeopleSoft data as either Protected A or B. Work to update both of these documents will be undertaken in the short-term and will serve to reconfirm the appropriate levels of protection for the system. As referenced in 8, 9, 10 above, restricted access with a second level approval process is granted for Protected B data.

A communication strategy will be put in place to identify and communicate level of protection for all HR data. Completion date: By March 31, 2012.

## 2.11 Data Integrity

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**There is a system to validate the transaction entry process and data integrity, but the initial error rate threshold prior to intervention needs to be reviewed.**

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The Data Integrity Unit of the HR Systems Group was set up in response to the 2003 PeopleSoft audit as a temporary measure to address the findings of the audit. At the time of the current audit, the unit was permanently established with one staff member dedicated to reviewing the integrity of the HR data entered by HR assistants and advisors nationally. The instructions for this review are well documented and the process a thorough one.

We examined the regional quarterly data integrity (initial error rates) reports developed by the Data Integrity Unit for the period starting in January 2008 and ending in March 2010 and found that all identified errors are corrected in a timely manner. We noted that the initial error rates ranged from a quarterly low of 1.5% in one region to a quarterly high of 51.2% in another region. When the error rate for a particular user is greater than 20%, within 24 hours the Data Integrity Unit advises the supervisor of the individual responsible for entering the data into the system. The supervisor is then charged with investigating the reasons for the high initial error rate, taking action to correct the errors found and addressing the problems encountered.

To validate the accuracy of the PeopleSoft data, the audit team selected a sample of 10 personnel files and examined 19 elements of HR information from each file. We then matched the specific information to the data contained in the system. We found no errors in the sample selected.

In our opinion, although the data integrity validation process is appropriate, the error rates prior to intervention are too high.

### Recommendation and Management Response

14. It is recommended that the DG, HRPDD review the appropriateness of the initial error rate threshold. (Medium Risk)

Agreed. The integrity of the data contained within HRMS is of critical importance given that the data is used to respond to central agency reporting requirements, for planning purposes and to support decision making, etc. As referenced above, the audit team concluded that the data within the PeopleSoft system is accurate. The audit team also confirmed that there is an appropriate system to validate the transaction entry process and data integrity. The Audit team was of the view that the initial error rate threshold which forms part of the data integrity process is too high. As a result, the DG HRPDD has undertaken a review of the initial error rate threshold and as a result, the threshold will be reduced to 10%. This means that managers will be informed of the errors made by their staff when their error rate exceeds 10%. It is important to note however that all errors are submitted to the end user in question for correction.

The DG HRPDD will communicate the importance of data integrity to all Regional Directors of HR and their staff. Completion date: By September 30, 2011

The DG HRPPD will communicate the need to include performance objectives in the PREAs of all HR Advisors and Assistants regarding the integrity of the data for their respective areas of responsibility. Completion date: By December 31, 2011.

The HR Systems team will continue to provide training to end users.

### **3. OBSERVATIONS – SYSTEM FEATURES**

#### **3.1 System-Generated Information**

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**The information generated from PeopleSoft supports management in their HR-related decisions and is used by the Department to complete special projects.**

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PeopleSoft has the ability to generate a significant amount of HR information that is used by management to support the HR decision-making process. This information includes, but is not limited to, the following: leave, vacancies, performance measurement, positions excluded from collective bargaining, secondments and assignments, grievances by cost centres, employment equity demographics, and compensation. We interviewed HR directors, HR regional directors, HR assistants, PeopleSoft super users, and directors in the business areas to assess the quality and quantity of HR information with which they are provided. All stated that they receive the information required to support their work. A few indicated that additional reports and dashboards as well as an enhancement to the system to manage training would also be helpful.

At the corporate level, PeopleSoft plays an important role in supporting special projects of the Department. These include the Law Practice Model, annual PREA completion, the Performance Pay Program for Lawyers and Senior Management, and tracking of departmental performance toward employment equity targets.

In our opinion, PeopleSoft supports management in HR-related decision making and special projects.

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**PeopleSoft functionality for report formatting requires some users to use Microsoft Excel and other parallel systems to generate some reports.**

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We were told that PeopleSoft has a lack of functionality with respect to report formatting. As a result, some directors use Excel-based systems to keep track of HR-related issues, such as

employees on long-term leave, workload monitoring, and ongoing classification transactions. Microsoft Excel and other Excel-based systems are also used to analyze data downloaded from PeopleSoft and to generate reports.

While the use of a parallel system may increase the risk of errors, in our view, the use of Excel to perform some analysis and generate some reports is an acceptable practice.

### 3.2 Security Features

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#### **Logging messages are not monitored for security breaches.**

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PeopleSoft has a built-in log function that directs messages to the Database Administrator (DBA). Included in these logs are security messages (e.g. unsuccessful log-in attempts), changes to the database, operational processing messages, disk storage usage, etc. However, the logging feature does not separate out security messages from other messages in the log. To review the security breaches would require a manual scan of the logs, which is time-consuming, and at present the Department does not have an automated solution to review the logs. As a result, the information on security breaches is not reviewed.

#### Recommendation and Management Response

15. It is recommended that the Senior Director, Business Support, Applications and Services ensure that logs from the PeopleSoft application are monitored for security breaches. (Medium Risk)

Agreed. The Senior Director, BSAS will work in collaboration with IT security to determine what level of monitoring is required and ensure that potential security breaches are reviewed. Completion date: March 31, 2012.

## 4. OBSERVATIONS – INTERFACES WITH OTHER SYSTEMS

As part of its corporate responsibilities, HRPDD is responsible for providing HR-related information for various systems owned by either PWGSC or Treasury Board Secretariat (TBS). There are currently system interfaces between PeopleSoft and four other external systems:

- Regional Pay System
- Employment Equity Database
- Position Classification Information System
- TB Public Service Employment Act System

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**Interfaces with other federal systems are well managed and the information produced by PeopleSoft is matched to the information generated from the other systems to ascertain accuracy and validity.**

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### *Regional Pay System (RPS)*

The RPS, maintained by PWGSC, is considered the system of record for pay data. Only staff in the Compensation Unit can update information in the RPS. The unit performs reconciliations with RPS in three ways:

1. comparison of general data from PeopleSoft to the RPS data using MS Excel macros on a monthly basis by the HR Statistics and Data Integrity Unit;
2. comparison of pension RPS data to PeopleSoft data on a monthly basis by the HR Statistics and Data Integrity Unit;
3. analysis of upcoming pay information received from PWGSC to previous pay information by the HR Statistics and Data Integrity Unit.

### *Employment Equity Database (EEDB)*

The EEDB is a TBS system that tracks employment equity data government-wide.

Reconciliation of employment equity data in PeopleSoft and in the EEDB is an annual exercise done by the Office of the Chief Human Resources Officer (OCHRO), TBS and the Employment Equity Coordinator from Justice Canada.

***Position Classification Information System (PCIS)***

All departments extract position classification data from their departmental HR system on a monthly basis and send it to PWGSC's PCIS for data quality validations. The data is reconciled with the RPS on PRI numbers. Data quality control reports are returned to HRPDD in Justice, which is expected to review the reports and correct the data in PeopleSoft if necessary. Corrected data is then transmitted in the next monthly upload. The Head, Human Resources Statistics and Data Integrity Unit then reviews the next error report to ensure that the original error has been corrected.

***Departmental Staffing Activity Information System (DSAIS)***

It is the responsibility of TBS to monitor all non-advertised appointments within the federal government. HRPDD transmits staffing data for all appointments quarterly from PeopleSoft to the Department Staffing Activity Information System (DSAIS) of the Public Service Commission (PSC). The departmental data is matched by PSC with a monthly staffing file received from the RPS.

In addition to the above, a position reclassification report is created by HRPDD for TBS. This report meets the requirements of the Proactive Disclosure Program, operated by TBS, which involves publication of information concerning the reclassification of occupied positions in the Public Service of Canada. The Justice report on the reclassification of occupied positions is run on a quarterly basis and transmitted to TBS after validation of the information and the file format.

## **5. OBSERVATIONS – INTERFACES WITH END-USERS**

### **5.1 User Documentation**

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**PeopleSoft internal system documentation as well as user guides and forms available on the Intranet provide sufficient information for users to navigate comfortably through the system.**

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The Justice Intranet (JUSnet) includes a specific section on the functionality of the various components of PeopleSoft. Users are able to link to specific topics such as classification/position management, compensation, employment equity, enterprise learning, labour relations, navigating and reports, official languages, performance, pay procedures, PREA, pride and recognition, security, and staffing. Access is governed by job description and roles assigned to the employee. Users can access other relevant HR documentation and forms and relevant links on JUSnet.

During the audit, we reviewed a sample of the documents and links on JUSnet. The documentation we reviewed adequately defines the process for users to follow to complete a specific task in PeopleSoft.

### **5.2 User Training**

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**The documentation available online to support basic training on PeopleSoft is adequate.**

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The HR Systems Group has developed training for departmental systems users on different HR-related topics: recruiting and workforce administration, position management, compensation, leave and performance pay, PeopleSoft navigation and reports, Nakisa<sup>8</sup> organizational charting, labour relations, and enterprise reporting. Basic training on PeopleSoft is provided online through JUSnet, and the documentation supporting the training is complete and sufficient. Additional documentation is also available for users who require more detailed information.

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<sup>8</sup> Nakisa is a company that develops organizational and talent visualization software.

It is the audit team's opinion that the information available to support basic user training on PeopleSoft is adequate.

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**There is a need to determine the reasons for the high data entry error rate of HR assistants.**

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Training costs are identified as part of the overall budget for the HR Systems Group. With the increase in costs related to the maintenance of the system and the lack of additional funding to support special technical projects, funds needed to provide additional and specific training to end-users such as HR assistants are not available. For example, during our examination of the data integrity process, we found that between January 2008 and March 2010 the data entry error rate of HR assistants was significant (20%) and was not always consistent from one year to the next. Between the second quarter of 2008/09 and the end of FY 2010, one region was over the 20% error rate in five of the seven quarters. A second region had a high (over 20%) error rate in the fourth quarter of 2008/09 and in the third and fourth quarters of 2009/10. However, the reasons for the high error rate have not been determined. In our view, the HR assistants' supervisors need to determine the reasons for these errors and consider whether additional training could reduce the error rate.

Recommendation and Management Response

16. It is recommended that the DG, HRPDD ensure that the data entry activities of HR assistants are assessed to determine the reasons for their high error rate, and take appropriate action to reduce the error rate. (Medium Risk)

Agree. See response to recommendation 14 above, which addresses this recommendation.

**5.3 Technical Support**

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**The HR Systems Group has implemented appropriate tools to track problems encountered by PeopleSoft users.**

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The HR Systems Group has set up a help line that provides technical support to users. The recently implemented version 8.9 of PeopleSoft has the ability to register, classify, prioritize, and track problems with the system from start to finish. A problem tracking software called "Perfect Tracker" is used to create reports on open items and statistical information such as counts by type, priority, and location of problem.

It is the audit team's opinion that the information generated from both systems adequately supports the management of user-identified problems.

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**The HR Systems Group needs to review the status of unresolved problems on a periodic basis.**

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The audit team analyzed two reports (outstanding issues and open requests) documented in the bug tracker system as of May 11, 2010. We examined approximately 19% of the issues/requests listed (41 out of 216) and found that, on average, an issue/request remained outstanding for approximately 238 days, with the maximum being 859 days. As a second step, we analyzed a third report of issues closed as of May 11, 2010 and found that, on average, issues were resolved within 49 calendar days from submission. We conclude, therefore, that when an issue can be resolved, it is resolved within a reasonable time, while difficult issues or issues requiring a significant amount of time to resolve appear to take substantially longer.

In our view, a periodic review of outstanding problems by the HR Systems Group would allow management to develop an appropriate action plan to resolve problems on a timely basis.

Recommendation and Management Response

17. It is recommended that the DG, HRPDD ensure that the status of unresolved problems is periodically reviewed. (Medium Risk)

Agreed. The HR Systems Group has recently completed a review of all outstanding or unresolved cases registered within the bug tracker system. It was noted that a number of these unresolved cases had in fact been addressed and resolved but inadvertently left open in the control log. It was also recognized that this log was being used as a tracking system for issues to be addressed as part of future upgrades, product enhancements, or to be raised by the Program Centre that provides support for the maintenance of the GC version of the product. These were not unresolved cases but in reality issues that require attention in the future. As such, in order to ensure that these types of comments are tracked, a separate system will be considered for this purpose so that only outstanding unresolved system bugs or problems will form part of the bug tracker system. In addition, a process ensuring a monthly review of the unresolved problems will be put into place ensure that outstanding BTs are addressed in a timely fashion. Completion date: By March 31, 2012.

## 5.4 Communications with Users

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### **PeopleSoft users are formally advised on a timely basis of changes to the system.**

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PeopleSoft users are located throughout Canada and some are co-located within other departments. The HR Systems Group has developed procedures to ensure that users are aware of system changes and new version implementations. The HR Systems Group also initiates a monthly teleconference with the Data Integrity Unit and the regional HR groups to discuss issues pertaining to PeopleSoft. Minutes of the meetings are recorded.

Furthermore, new system releases are announced by way of a formal communiqué that is distributed to all users. We were also told that the HR Systems Group has just launched a PeopleSoft newsletter that will be linked to the communiqués when they are issued. In our view, communications with users are adequate.

## **6. RECOMMENDATIONS AND MANAGEMENT RESPONSES**

- 1. It is recommended that the DG, HRPDD ensure that the SLA with IMB is updated and the services redefined if necessary. (Medium Risk) .....4**

Agreed. As referenced in Section 2.5 of this document, the SLA ‘between the HR Systems Group and IMB identifies the terms and conditions related to the services provided by IMB and addresses such things as the availability of IMB staff to service the system, the acceptable maximum downtime for system updates, and the restore time in case of a disaster. IMB has also signed operational level agreements (OLAs) with an outside supplier for infrastructure components, including the system network, the Help Centre, and on-site work stations. The audit team interviewed a variety of users in different positions to assess their level of satisfaction with the performance of the internal and external service providers. All users indicated their satisfaction with the response time and the level of service.’ In addition, the audit findings confirmed that the roles and responsibilities for the members of PSoft team (both functional and technical) are clearly defined. With the aforementioned in mind, the SLA will be reviewed and updated by December 31, 2011 and will be communicated as appropriate. Completion date: December 31, 2011.

- 2. It is recommended that the DG, HRPDD, in consultation with the Manager, HR Systems, IMB Corporate Systems, ensure that the business analysts’ job descriptions are reviewed to accurately reflect their duties. (Low Risk).....5**

Agreed. As referenced earlier in this report, the roles and responsibilities of the HR Systems Group and IMB Corporate Systems are clearly defined. The CS employees within the Technical Team analyze business requirements that have been gathered and documented by the business analysts within the HR Systems Team in order to determine the technical impacts, design options, etc. As such, there is no overlap or duplication of roles. However it is recognized that the current work descriptions require adjustment. The IMB Corporate Systems Group will be implementing the government-wide endorsed CS generic job descriptions this fiscal year. This will serve to address this

recommendation. The work descriptions for the business analysts within the HR Systems Group are in keeping with those used in government as part of the broader shared systems initiative for PeopleSoft. Completion date: March 31, 2012.

- 3. It is recommended that the Senior Director, Business Support, Applications and Services ensure that an overall performance report is prepared that provides relevant data on PeopleSoft to assist management in its overall assessment of the system. (Low Risk).....9**

Agreed. The Senior Director, Business Support, Applications and Services (BSAS) will communicate with management to determine needs, modify existing report, as appropriate, to respect these needs, and ensure that they are communicated regularly and that issues are addressed in an efficient manner. Completion date: By March 31, 2012 and ongoing thereafter.

- 4. It is recommended that the Senior Director, Business Support, Applications and Services ensure that the Implementation Checklist is updated to include an approval signature and date. (Medium Risk).....10**

Agreed. The Senior Director, Business Support, Applications and Services (BSAS) will ensure that the Implementation Checklist is updated to include an approval signature and date and that the related change and release management processes are updated accordingly. Completion date: By March 31, 2012.

- 5. It is recommended that the DG, HRPDD ensure that the Operations Guide is finalized and provided to users as soon as it is completed. (Low Risk) .....11**

Agreed. The HR Systems Team recognizes the need to have all processes and procedures that are currently used to effectively maintain the application documented and made known to the ever-increasing user community. The work in relation to the development of the Operations Guide is nearing completion and will be finalized, communicated to all users, and made available through HR and You. Completion date: By December 31, 2011.

- 6. It is recommended that the Senior Director, Business Support, Applications and Services review the restore processes for the PeopleSoft application to determine which process is most reliable. (Medium Risk).....11**

Agreed. The HR Systems Group and the Senior Director, BSAS recognize the criticality of effective system restore processes and acknowledges the need for application server backups, which are required when the PeopleTools or operating systems are upgraded. The Senior Director, BSAS will review the current restore processes with a view to determining the best option. This will be part of a joint effort with the Technology Services Division (TSD) of the Information Management Branch to incorporate in the disaster recovery process for the Department. In addition, this step/requirement will be added to the DBA procedures prior to next PeopleTools/operating systems upgrade, currently scheduled for fiscal 2012/13. Completion date: By March 31, 2012.

- 7. It is recommended that the DG, HRPDD ensure that the criticality of PeopleSoft is assessed through a BIA, and that a BCP is completed for PeopleSoft. (Medium Risk) .....13**

Agreed. HRPDD and the IMB will work in collaboration to ensure that the assessment and plan are completed in conformity with the department's guide to business continuity. Completion date: By March 31, 2012.

- 8. It is recommended that the DG, HRPDD ensure that the creation of system access privileges is supported by the appropriate documentation. (Medium Risk).....14**

Agreed. The HRMS contains both Protected A and Protected B data and as such, it is imperative that we have the appropriate safeguards in place to ensure the protection of this data. The process referenced above by the Audit Team was implemented in 2010 with this imperative in mind. The process in place requires that all requests for system access be initiated by the employee's responsible manager through the completion of the HRM System Access Request Form. This Form must be completed electronically and submitted by the responsible manager. Given the Protected B designation of certain data elements, a "restricted" access process has been put in place that requires a second-level approval by the Corporate Owner.

As such, the HR Systems Group has a process in place to ensure that the system access privileges are supported by the appropriate documentation, however, it is recognized that further enhancements to this process can be made. As such, the HR Systems Team will undertake a comprehensive review of all existing PeopleSoft access groups and user profiles and will establish a cyclical schedule to ensure that this review occurs on a regular basis. The aforementioned Operations Manual provides detailed information on the Access Privilege Process and reiterates the responsibilities and accountabilities of those employees who have been granted access. The publication of this Guide will serve to reinforce the importance of safeguarding the integrity and confidentiality of HR data  
Completion Date: December 31, 2011.

9. **It is recommended that the DG, HRPDD ensure that existing procedures supporting access controls are enhanced to strengthen the confidentiality and integrity of HR data. (Medium Risk).....16**

Agreed. The HR Systems Group had commenced work to strengthen the existing procedures supporting access controls to ensure the confidentiality and integrity of HR data. In addition to the work referenced above; the HR Systems Group will further enhance the process which currently requires managers to inform us of changes within respective areas and of the resulting changes in access requirements by:

- developing a monthly report that tracks all internal movement of employees with access privileges to the application. HR Systems will use this report to initiate a communication with the user and new supervisor to confirm the access privileges required to perform functions in the new role if this has not been initiated by the supervisor. These access privileges will be documented and signed off and reviewed as part of the ongoing process referenced above;
- creating shared folders with limited access within the HR Systems Team to store completed documentation, and supporting information for each user account;

Completion date: Work has commenced and will be completed by December 31, 2011.

10. **It is recommended that the DG, HRPDD ensure that all active user accounts are periodically reviewed and an overall account status report is produced. (Low Risk)17**

Agreed. As noted in the management responses to Recommendations 8 and 9, a process is being implemented to ensure periodic reviews of access privileges for all users, Completion date: March 31, 2012.

**11. It is recommended that the DG, HRPDD ensure that a Privacy Impact Assessment and a Threat and Risk Assessment are completed. (Medium Risk).....17**

Agreed. HRPDD in collaboration with IMB will immediately initiate the steps to secure the services of experts to undertake a Privacy Impact Assessment and a Threat Risk Assessment in order to ensure compliance with the Treasury Board Management of Information Technology Security (MITS.). Completion date: By March 31, 2012.

**12. It is recommended that the DG, HRPDD ensure that the Certification and Accreditation of PeopleSoft is updated. (Medium Risk) .....18**

Agreed. HRPDD in collaboration with the IMB will take the necessary steps to ensure that the Certification and Accreditation of PeopleSoft is updated and completed by March 2012.

**13. It is recommended that the DG, HRPDD ensure that the appropriate protection level for all HR data is identified and communicated to staff. (Medium Risk).....18**

Agreed. The PeopleSoft HRMS is the government-endorsed application for HR Management. The Government of Canada version of the PeopleSoft HRMS is maintained by the Program Centre housed within PWGSC. The Program Centre has identified appropriate security designations for the modules licensed by the Government of Canada. Responsibility for access controls is left to the discretion of each government department utilizing the application taking these security designations into consideration. As referenced above, both the 2006 Threat and Risk Assessment and the 2008 Certification and Accreditation documents designate PeopleSoft data as either Protected A or B. Work to update both of these documents will be undertaken in the short-term and will serve to reconfirm the appropriate levels of protection for the system. As referenced in 8, 9, 10 above, restricted access with a second level approval process is granted for Protected B data.

A communication strategy will be put in place to identify and communicate level of protection for all HR data. Completion Date: By March 31, 2012.

**14. It is recommended that the DG, HRPDD review the appropriateness of the initial error rate threshold. (Medium Risk) .....20**

Agreed. The integrity of the data contained within HRMS is of critical importance given that the data is used to respond to central agency reporting requirements, for planning purposes and to support decision making, etc. As referenced above, the audit team concluded that the data within the PeopleSoft system is accurate. The audit team also confirmed that there is an appropriate system to validate the transaction entry process and data integrity. The Audit team was of the view that the initial error rate threshold which forms part of the data integrity process is too high. As a result, the DG HRPDD has undertaken a review of the initial error rate threshold and as a result, the threshold will be reduced to 10%. This means that managers will be informed of the errors made by their staff when their error rate exceeds 10%. It is important to note however that all errors are submitted to the end user in question for correction.

The DG HRPDD will communicate the importance of data integrity to all Regional Directors of HR and their staff. Completion date: By September 30, 2011

The DG HRPPD will communicate the need to include performance objectives in the PREAs of all HR Advisors and Assistants regarding the integrity of the data for their respective areas of responsibility. Completion date: By December 31, 2011.

The HR Systems team will continue to provide training to end users.

**15. It is recommended that the Senior Director, Business Support, Applications and Services ensure that logs from the PeopleSoft application are monitored for security breaches. (Medium Risk).....22**

Agreed. The Senior Director, BSAS will work in collaboration with IT security to determine what level of monitoring is required and ensure that potential security breaches are reviewed. Completion date: By March 31, 2012.

**16. It is recommended that the DG, HRPDD ensure that the data entry activities of HR assistants are assessed to determine the reasons for their high error rate, and take appropriate action to reduce the error rate. (Medium Risk).....26**

Agreed. See response to recommendation 14 above, which addresses this recommendation.

**17. It is recommended that the DG, HRPDD ensure that the status of unresolved problems is periodically reviewed. (Medium Risk) .....27**

Agreed. The HR Systems Group has recently completed a review of all outstanding or unresolved cases registered within the bug tracker system. It was noted that a number of these unresolved cases had in fact been addressed and resolved but inadvertently left open in the control log. It was also recognized that this log was being used as a tracking system for issues to be addressed as part of future upgrades, product enhancements, or to be raised by the Program Centre that provides support for the maintenance of the GC version of the product. These were not unresolved cases but in reality issues that require attention in the future. As such, in order to ensure that these types of comments are tracked, a separate system will be considered for this purpose so that only outstanding unresolved system bugs or problems will form part of the bug tracker system. In addition, a process ensuring a monthly review of the unresolved problems will be put into place ensure that outstanding BTs are addressed in a timely fashion. Completion date: By March 31, 2012.

## APPENDIX A – AUDIT METHODOLOGY

The audit methodology consisted of:

- an analysis of the management control framework in place using a risk-based approach related to key elements of the framework;
- a review of relevant policies at the departmental and central agency levels including, but not limited to, employment equity, harmonized threat and risk assessment, certification and accreditation, workforce administration, and PSEA;
- a review, analysis, and discussion with stakeholders of all documentation pertinent to PeopleSoft including, but not limited to:
  - HR Systems Operations Manual
  - Problem Tracker reports
  - service level agreements
  - data integrity reports
  - creation of accounts
  - job descriptions
  - PeopleSoft process overviews
  - PeopleSoft procedures
- interviews with approximately 25 management and staff within HRPDD and the regions;
- a review of a sample of;
  - 10 personnel files
  - 46 user accounts
  - 43 outstanding problems
  - 100 closed problems
- a review of four service level agreements (SLAs) and contracts between HRPDD, IMB, CGI<sup>9</sup>, Consulting and Audit Canada, and Nakisa.

The audit was undertaken in a manner consistent with the Treasury Board Policy on Internal Audit and related guidelines and procedures, and with generally accepted auditing standards.

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<sup>9</sup> CGI is an information technology and business process services firm.

## APPENDIX B – RISK ASSESSMENT GUIDELINES FOR AUDIT RECOMMENDATIONS

Examples of criteria used for assessing the risk level of audit recommendations are outlined below:

Assessment	Criteria
High	<ul style="list-style-type: none"> <li>• <b>Controls</b> are not in place or are inadequate.</li> <li>• <b>Compliance</b> with legislation and regulations is inadequate.</li> <li>• Important <b>issues</b> are identified that impact the achievement of program/operational objectives.</li> </ul>
Medium	<ul style="list-style-type: none"> <li>• <b>Controls</b> are in place but are not being sufficiently complied with.</li> <li>• <b>Compliance</b> with central agency/departmental policies and established procedures is inadequate.</li> <li>• <b>Issues</b> are identified that impact the efficiency and effectiveness of operations</li> </ul>
Low	<ul style="list-style-type: none"> <li>• <b>Controls</b> are in place but the level of compliance varies.</li> <li>• <b>Compliance</b> with central agency/departmental policies and established procedures varies.</li> <li>• <b>Opportunities</b> are identified that could enhance operations.</li> </ul>

It should be noted that, in applying the above criteria to a recommendation, Internal Audit Branch takes into consideration the nature, scope, and significance of the audit finding(s), the impact of the recommendation on the organization, and the auditors' professional judgment.