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To: Members of the Legislative Audit Committee

From: Sally Symanski, CPA

State Auditor

Re: Genesis Project

Colorado Department of Labor & Employment

Summary

This is the second of two reports summarizing the findings and recommendations resulting from our review of the Colorado Department of Labor & Employment's Genesis Project. Broadly, the Genesis Project was the name given to the Department's effort to redesign the State Unemployment Insurance (UI) Program, including the development of a single computer system intended to integrate the unemployment benefits and unemployment tax collections processes and computer systems. In April 2002 the Department contracted with Accenture, LLP to design, develop, and implement the automation system intended to support the integrated UI process. In December 2005 the Department and Accenture mutually terminated their Genesis Contract. At the time the contract was terminated, Accenture had completed three components of the computer system. However, the firm had not completed the two major components of the system.

The focus of our first report, completed in October 2006, was the Department's project recovery assessment (PRA). The purpose of the PRA was to determine whether the development work on the Genesis Project could be salvaged and to identify any options and associated costs. The scope of the audit was to determine whether the Department was following appropriate standards and guidelines in planning and developing the PRA. We identified concerns with the Department's approach to the assessment and made recommendations for improvement.

This second audit report presents the findings of our evaluation of the Department's project management practices associated with the Genesis Project and the integrated computer system's development that led to the termination of the Genesis Contract. Because the Department intends to continue its effort to create and implement a single computerized system for its unemployment benefit and tax collection processes, the lessons learned from the Genesis Project have future relevance. The implementation of Senate Bill 06-063 and Executive Order D 016 07 should strengthen oversight and accountability for major information technology projects and address many concerns identified in the Department's management of the Genesis Project. However, we believe there are specific issues worthy of discussion as described in the following sections.

Background

The Colorado Department of Labor and Employment (Department) is the single state agency responsible for administering Colorado's Unemployment Insurance (UI) Program. The UI Program acts as an income stabilizer by providing cash benefits to unemployed individuals. Employers covered under the UI program are required to contribute, through the payment of UI payroll taxes, to a state fund maintained by the Department. To receive benefits, unemployed workers must meet eligibility requirements. In Fiscal Year 2006 the Department collected \$498.2 million in UI taxes from more than 151,700 employers and disbursed \$301.6 million in UI benefits to more than 92,200 eligible individuals.

In 1999 the Department began a reengineering project—Genesis—intended to upgrade and consolidate its unemployment benefit and unemployment tax collection functions. The overall goals of the Genesis Project were to:

- Create a customer-friendly state government and meet the public demand for a new, more responsive, and expanded service for administering the unemployment insurance program.
- Reduce paper-based processes and increase effectiveness through greater use of electronic data management, including electronic data interchange, imaging systems, and interactive services.
- Develop an information management infrastructure to provide complete, accurate, and up-todate information, thus improving the accuracy and speed of processing customer requests, with a corresponding reduction in paperwork.
- Upgrade the call center technology used by the UI Benefits Section to include the UI Tax Unit and establish an integrated Customer Service Center.

As part of the consolidation, Genesis included retraining Department staff to conduct both unemployment benefit and unemployment tax activities. At the time, staff were functionally segregated into these two distinct sections. The most significant and costly component of Genesis was the development of a single computer system intended to integrate the unemployment benefit and tax collection processes. This system was called the State Unemployment Program e-Government Resource (SUPER) system. Funding for the Genesis Project, including the development of the SUPER system, derived from the Employment Support Fund (Fund). Pursuant to Section 8-77-109, C.R.S., the Employment Support Fund is to be credited with 50 percent of the surcharge tax collected from employers based on taxable wages paid as prescribed in Section 8-76-102, C.R.S. Moneys in the Fund are to be appropriated annually by the General Assembly to the Department of Labor and Employment for various statutory purposes. Among these purposes is to offset funding deficits for program administration, including information technology initiatives.

Chronology of the Genesis Contract

In April 2001 the Department of Labor and Employment issued a Request for Proposal (RFP) seeking a contractor to replace the Department's Unemployment Insurance system on a fixed-price basis. A fixed-price basis obligates the State to pay a lump sum amount regardless of the costs to the contractor to perform the contract provisions. In a fixed-price contract, clear statements of work and specifications are critical because they delineate what that will be required of the contractor to adequately perform the work and outline the role the State will play in monitoring the contractor's performance.

The Genesis Contract stated that the:

...contractor shall design, develop, and implement a turnkey automation system which supports an integrated UI tax and benefits approach to the UI business process. This project, known as the Genesis Project, includes the implementation of a new architectural platform and all operating and support software.

Essentially, SUPER was to replace both the Colorado Unemployment Benefits System (CUBS, used to administer unemployment benefits) and the Colorado Automated Tax System (CATS, used to collect and track employers' payroll tax payments). The Department awarded the Genesis Contract, which included the development of five software components and the purchase of specific hardware, to Accenture, LLP. The term of the contract was 42 months, or three and one-half years, from the contract's effective date, April 26, 2002. The original contract with Accenture totaled \$39.6 million. This figure increased to \$40.8 million after 14 contract change orders and 6 contract amendments.

As indicated in the chart of the following page, about four and one-half years elapsed from the time the Department issued the Genesis Project RFP to the time the Department and Accenture terminated their contract in December 2005. In January 2007 the Department completed a Project Recovery Assessment (PRA) that determined whether any of the SUPER System development work could be salvaged, and the costs associated with completing the System. The PRA is discussed in greater detail later in this report.

Colorado Department of Labor and Employment Genesis Project Time Line 1999 - 2007			
Date	Action		
1999	Department begins Genesis Reengineering Project		
April 2001	Genesis Project Request for Proposal issued		
October 2001	Department selects Accenture, LLP as contractor		
April 2002	Genesis Contract with Accenture, LLP becomes effective		
July 2002	Accenture begins work		
February 2004	First Department report of problems to the Colorado Commission on Information Management (IMC)*		
December 2005	Genesis Contract terminated		
March 2006	Department's funding request to the Joint Budget Committee for the Project Recovery Assessment		
January 2007	Completion of the Project Recovery Assessment		

Source: Auditor analysis of Department of Labor and Employment Data. **Note:** * The IMC is the statutorily-created entity charged with overseeing strategic planning and policy setting for the State's information systems.

At the time of the contract's termination, Accenture had completed three of the SUPER system's five software components. These three components—Wage Detail, Benefits Payment Control, and Unified Desktop—are in use by the Department today. Accenture did not, however, complete the two largest and most complex components—Unemployment Tax and Unemployment Benefits. These two software components represented 97 percent of the SUPER system requirements. Because the two were never completed, the Department continues to use the CUBS and CATS legacy systems to administer UI benefits payments and UI tax collections.

The Department expended a total of \$27.9 million on the Genesis Project. Of this figure, the final net cost for the contract with Accenture was approximately \$24.2 million. The remaining \$3.7 million in expenditures included the Independent Verification and Validation (IV&V) contract and the call center upgrade, including construction costs. The purpose of IV&V is to provide assurance that software is designed and deployed in a manner that is in keeping with system needs and requirements. The IV&V for Genesis was conducted by an outside vendor hired by the Department.

It should be noted that of the total \$24.2 million payment to Accenture, approximately \$5.8 million was for hardware and commercial software that was retained and is in use by the Department. In addition to these costs, the Department estimates that its personnel costs associated with staff involvement in the Genesis Project totaled approximately \$6.5 million for Fiscal Years 2003 through 2006. Funding for these personal services expenditures derived from the Department's regular sources and not from the Genesis Project appropriation.

Project Recovery Assessment

Following the termination of Genesis Contract in December 2005, the Department initiated a project recovery assessment (PRA). A total of about \$2.3 million was appropriated by the Joint Budget Committee from the Employment Support Fund for the PRA. The goals of the PRA were to: (1) assess the condition of the SUPER implementation effort; (2) examine options for completing the SUPER system; (3) determine the extent of the time and money required for completing the SUPER system; and (4) recommend the most appropriate approach for completing the SUPER system.

In October 2006 we completed the first of two audit reports concerning the Genesis Project. The focus of the October 2006 report was the Department's project recovery assessment. Specifically, the scope of the audit was to determine whether the Department was following appropriate standards and guidelines in planning and developing the PRA. We identified concerns with the Department's approach to conducting the assessment and reported that if the concerns were not addressed, the assessment could exceed the allocated time and budget and fail to achieve its intended result. The Department agreed to implement the audit's recommendations to address these concerns and, in January 2007, the PRA was completed on schedule and under budget. Of the \$2.3 million appropriation for the PRA, the Department reports that it returned approximately \$900,000 to the Employment Support Fund.

The PRA concluded that with the exception of the three software modules developed by Accenture that were being used by the Department, none of the other work performed by Accenture could be used or rebuilt in a cost effective manner. That is, the costs to salvage the two major modules—unemployment tax and unemployment benefits—would be prohibitive. Consequently, in February 2007 the Department reported to the Commission on Information Management (IMC) that two of its next steps would be to: (1) evaluate business processes and identify opportunities for legislative change to reduce complexity, operating/process cost, and eventual system cost and (2) use the knowledge gained from the PRA to create and issue a new request for proposal for an integrated tax/benefits system. In its report to the IMC, the Department also estimated it would take about 18 months to complete these and other steps before it could arrive at cost estimates for issuing a new RFP to develop an integrated system.

Governor's Office of Information Technology

The Governor's Office of Information Technology (OIT) was statutorily created in 1999 and charged with setting statewide policy for information technology-related functions. Basically, the OIT provides statewide governance for information technology activities in state agencies. In April 2002, at about the same time the Department signed the Genesis Contract with Accenture, the OIT,

in conjunction with the Commission on Information Management (IMC), issued a statewide Information Technology Project Management Policy. The policy requires all state agencies to use the Project Management Institute's *Project Management Body of Knowledge* as the standard for information technology (IT) project management. The Project Management Institute is the international non-profit association for advancing the profession of project management, including the development of widely-used standards and guidelines of practice.

In June 2006 as a result of the enactment of Senate Bill 06-063 (codified as Section 24-37.5-105, C.R.S.,) the authority of the OIT was expanded to include greater oversight for major automation projects at state agencies. According to the legislation, a major automation project is defined as a project that meets one of the following criteria:

- Estimated costs exceed \$5 million.
- A multi-year (more than one fiscal year) effort.
- Critical level of risk as determined by the OIT.
- Frequent or consistent coordination required between IT project management staff and agency administrative or program staff.

The legislation requires the OIT to establish policies and procedures for acceptable project plans and feasibility studies. Also, prior to the approval or disbursement of any moneys for major automation projects, the OIT is to certify to the State Controller that the project is in compliance with best practices concerning the management of information technology projects. The statute also requires agencies to use either OIT project managers or have OIT approval for agency project managers on major projects.

In May 2007 the Governor issued Executive Order D 016 07, *Improving State Information Technology Management*. As described in greater detail later in this report, the Executive Order outlines the roles, responsibilities, and requirements related to implementing Senate Bill 06-063 and other components of the OIT's statewide information technology governance.

Audit Scope

As previously mentioned, this is the second of two reports presenting the findings of a performance audit of the Colorado Department of Labor and Employment's (Department) Genesis Project. The focus of this Genesis Project performance audit was the SUPER System and the Department's contract with Accenture, LLP. The scope of the audit was to define the problems surrounding the development of the SUPER System that led to the termination of the Department's contract with Accenture, LLP and to identify steps to be taken to help prevent problems in the future. The Office of the State Auditor contracted with Tatum, LLC, to assist in conducting this audit.

The first audit report was released in October 2006 and centered on the Department's Project Recovery Assessment (PRA). This second audit report presents the findings of our evaluation of the Department's project management practices associated with the Genesis Contract and the SUPER system's development. Because the Department intends to continue its effort to create and implement a single computerized system for its unemployment benefit and tax collection processes, the lessons learned from the Genesis Project have future relevance. Therefore, our intent in this

report is to address specific concerns at the Department of Labor and Employment and outline some best practices. While these best practices cannot guarantee success, the application of them could provide greater assurance that cost overruns and delays in implementation are minimized.

In addition, in response to a legislative request, we reviewed the Department's compliance with statutes and administrative rules related to procurement. Overall, nothing came to our attention that would indicate the Department did not comply with procurement statutes and rules for the issuance of the Genesis RFP and the selection of Accenture, LLP.

Audit work included conducting detailed reviews of Genesis Project documentation including meeting minutes, contracts, contract amendments and change orders, emails, and other documentation. We also reviewed relevant Colorado state government statutes, rules, and policies related to information technology, fiscal procedures, and contract management. Finally, we interviewed Department staff and staff from the Governor's Office of Information Technology and reviewed best practices in the field of information technology project management.

Findings

Project Management

The State's Commission on Information Management (IMC) issued its Information Technology Project Management Policy in April 2002. The policy requires all state agencies to use the Project Management Institute's *Project Management Body of Knowledge* (PMBOK) as the standard for information technology (IT) project management. According to PMBOK, project management is defined as the "application of knowledge, skills, tools, and techniques to a broad range of activities in order to meet the requirements of a particular project." In addition, project management is comprised of five process groups: (1) initiating processes; (2) planning processes; (3) executing processes; (4) monitoring and controlling processes; and (5) closing processes.

Effective project management is key to the success of any project. We found there were significant breakdowns in the Department of Labor and Employment's management of the Genesis Project, particularly in the processes for monitoring and controlling project costs, schedules, contractor performance, and outcomes. For example, according to the Genesis Contract, both the contractor and the State (the Department) had roles and responsibilities related to project management. However, the Contract indicates that the project management role of the Contractor was to have been a supporting one, while the State (i.e., the Department) was to provide an "organizational structure for the oversight and administration of the Genesis Project."

As stated in the contract, the Contractor "shall provide a dedicated full-time Project Manager to manage the project and the Contractor staff." The Contractor's Project Manager was to attend Project status meetings with the Department's Project Management Office, provide regular status reports to the Department, and provide leadership for the Contractor's staff. By contrast, the Contract stated that the Department's internal oversight and administrative hierarchy included responsibilities for monitoring and ensuring that the Project stayed on schedule; comparing the Contractor's performance with Contract requirements and project plans; and making

recommendations to the Department's Executive Director on all project decisions that affect costs, schedule, or scope of work. The internal oversight structure the Department designed, including various responsibilities assigned to each level, is depicted on the following page.

Department of Labor and Employment Oversight Structure As Outlined in the Genesis Contract

Department Executive Director

Make final decisions on any contract change request generated by the Steering Committee.

Genesis Steering Committee

(Executive-level Department staff)

Make recommendations to the Executive Director on all project decisions that impact cost, schedule, or scope of work.

Department Project Directors

(Chief of UI Operations & Chief Information Officer)

Monitor and ensure project stays on schedule.

Communicate project status to external stakeholders such as the Commission on Information Management and the Office of Information Technology.

Resolve project issues such as resource needs and conflicts.

Independent Verification & Validation (IV&V) Contractor

(Separate outside vendor)

Independently verify and validate the project processes and deliverables throughout the Genesis Contract period.

Department Project Management Office (PMO)

(Department Staff)

Directly interface with Contractor on a day-to-day basis.

Perform initial evaluation of change requests.

Communicate to internal stakeholders about the process, time lines, and agenda for each project phase.

Monitor Contractor's performance and compare with contract requirements and project plans.

Source: Analysis of the Genesis Contract dated April 26, 2002.

As the chart shows, the Department designed an internal project management structure that assigned responsibility for various oversight activities. However, the Department never fully put this structure into operation or assumed primary responsibility for project management. Rather, according to Department management, they relied on the prime contractor to oversee and manage the project it had been contracted to design and implement. In practice, the Department's Project Management Office became an adjunct to, rather than the active monitor of the contractor's project management function. This means the Department relied on the contractor to assess its own performance. We found that the Department's Executive Director became Chairman of the Steering Committee rather than functioning as a separate level of oversight and authority, thus eliminating an additional level of oversight. Also, as described in greater detail in the following section, we found that the Department's Project Directors did not independently monitor the contractor to ensure the Project stayed on schedule. We believe that had the Department been more proactive and diligent in its management of Genesis, it is likely that problems would have been identified and resolved sooner.

The passage of Senate Bill 06-063 with its emphasis on project management came too late to impact the Genesis Project. However, implementation of the bill's requirements should increase the likelihood for success if and when the Department undertakes another major automation project. For example, the Department of Labor and Employment will now either have to use OIT project managers or gain approval by OIT for qualified in-house or contracted project management staff. Additionally, funding for major automation projects will be contingent upon certification from the OIT that the projects are in compliance with best practices.

Moreover, in May 2007 the Governor issued Executive Order D 016 07, *Improving State Information Technology Management*. The Executive Order is intended to strengthen the ability of the State's Chief Information Officer and the Governor's Office of Information Technology to oversee information technology projects in all executive branch departments and their associated agencies. In essence, the Executive Order outlines the roles, responsibilities, and requirements related to implementing Senate Bill 06-063 and other components of the OIT's statewide information technology governance. For example, project milestones must be agreed to between the respective department and the OIT. Also, departments are to report to the OIT at each milestone or date originally associated with a milestone. As we describe later in this report, the failure to meet significant milestones was problematic for the Genesis Project. Finally, "to the extent that such reports indicate that a major project is at risk, the department or agency shall cooperate with the OIT to implement plans or mitigate risks."

The implementation of Senate Bill 06-063 and Executive Order D 016 07 should strengthen oversight and accountability for major information technology projects and address many concerns identified in the Department's management of the Genesis Project. However, as described in the following section, there is one area—contract monitoring—that necessitates special comment, and the prompt attention of the Department.

Contract Monitoring

According to the Department of Personnel and Administration's Contract Procedures and Management Manual (Manual), the primary responsibility for performance of a contract rests with the contractor. However, the State is ultimately responsible for the quality and quantity of the goods and services provided. Therefore, according to the Manual:

...it is imperative that the agency or institution monitor its contracts for adequate performance to protect the State's (and the contractor's) interests. Post-award administration should be a series of organized and coordinated actions tailored to the type of contract and contractor involved. Careful monitoring will avoid misunderstandings and prevent small difficulties from becoming major problems. Typically, the more complex the contract, the more extensive the monitoring activity.

The Manual states that an individual, or individuals, should be designated as contract manager(s). The general contract manager is to monitor the contractor's performance and:

- Identify needed changes and arrange for them in the contract;
- Monitor and approve payments;
- Conduct financial reviews and audits during the course of the contract;
- Work with the contractor to resolve any problems;
- Recommend contract termination, if necessary;
- Manage close-out of the contract; and
- Evaluate the contract results.

The Manual also states that monitoring may take many forms including contractor reports and inspections and observations.

We reviewed the contract between the Department and Accenture and evaluated the Department's contract monitoring activities. We found that the Department was neither timely nor rigorous in its monitoring and enforcement of the Genesis Contract or of the performance of the prime contractor. As a consequence, problems, including contractor performance issues, were not resolved in a timely manner resulting in a project that did not stay on schedule, on budget, or focused on its intended goals, as described in the following examples.

Lack of Adequate Timely Monitoring

The original Genesis Project schedule consisted of ten separate phases. The table below outlines the original schedule, as presented in the contract and the subsequent changes in the completion dates. Each of the changes was agreed to between the Department and the contractor in either a contract amendment or a bilateral change order letter.

Genesis Project Schedule				
	Original	Revised	Actual	
	Completion	Completion	Completion	
Phase	Date	Date	Date	
Contract signed – work begins	04/26/2002	NA	04/26/2002	
Familiarization	07/30/2002	NA	08/09/2002	
System Planning	09/21/2002	NA	07/22/2002	
Wage Detail Component	01/24/2003	01/31/2003	02/24/2003	
Unified Desktop Component	06/07/2003	08/26/2003	10/15/2003	
Tax System Component	10/07/2003	12/06/2004	Never	
			Completed	
Benefits Payment Control Component	02/23/2004	No change	10/06/2003	
Benefits System Component	05/14/2004	09/13/2004	Never	
			Completed	
Hardware & Software installation	10/14/2004	No change	Never	
			Completed	
Training – system completed	05/10/2005	10/10/2005	Never	
- · ·			Completed	

The Tax System phase represented 23 percent of the SUPER System's total requirements. These requirements included necessary features such as the ability to display names, perform calculations, and format reports. In November 2003, 45 days after the original October 7, 2003 contract completion date for the Tax System component, the Department extended the completion date to February 2, 2004. Then, on February 20, 2004, 18 days after this first revised completion date, the Department again revised and extended the completion date to December 6, 2004. The contract amendment for this change stated that:

Contractor acknowledges that State will incur significant additional costs by Contractor's failure to meet original and/or previously amended contractual dates associated with Deliverables and Milestones for the Tax Implementation Phase of the Genesis Project. Contractor further acknowledges that State's agreeing to move the Tax Implementation Phase to a scheduled time, which occurs after the Benefits Implementation Phase, is merely an accommodation to Contractor.

This contractual language shows that in February 2004 the Department was aware of the serious delays that would significantly increase costs. However, the Department did not report the problems to the IMC until four months later, in June 2004. It was then the Department reported for the first time that the Genesis Project was experiencing critical problems in meeting project milestones that could result in project delays and cost impacts. In its next report to the IMC in August 2004, the Department indicated that the Genesis project had multiple areas that were delayed or at risk, and that previous mitigation strategies did not work, were never implemented, or were only recently implemented. In a December 2004 monthly Project Status Report to the IMC, the Department stated that:

Schedule is technically red (high risk) because the project will not meet the contractual release dates for the remaining two releases (the Tax and Benefit phases). However the project has a working schedule that fulfills business needs. The business/technical areas remain green (low risk) indicating that the system will meet business, functional, and technical requirements. Therefore, the overall project is considered yellow (medium risk) until firm release dates are determined.

One year later, in December 2005, the Department and Accenture terminated the Genesis Contract.

In reviewing Steering Committee meeting minutes and other documents and reports, we found no evidence that the Department directly monitored the Contractor's performance. Instead, Department staff indicated that they relied on the Contractor's reports on its own performance and on the status of the Project. In the absence of direct, timely monitoring by the Department, problems were not identified, reported, and addressed in as effective and timely a manner as likely would have occurred had the Department not relinquished its responsibility for ensuring the performance of the Contractor.

Contractor/Subcontractor Performance

The contract the Department entered into with Accenture allowed for Accenture to subcontract work on the Genesis Project. As with other state contracts, the use of subcontractors was contingent upon the Department's approval and required subcontractors to comply with all of the provisions of the contract between Accenture and the Department. According to the Genesis Contract, the Contractor, "ultimately shall be responsible for the timely performance and completion of any subcontracted work."

Accenture subcontracted the development of the Tax System component of the Project to Unisys. As mentioned above, the Tax System component represented 23 percent of the Genesis Project's total requirements. We estimate the total contract costs for the component were approximately \$8.3 million based on the Genesis Contract Payment Schedule. Our review of the Genesis Contract, meeting minutes, and other documentation revealed that the Department did not do enough to ensure the quality of this major subcontractor's performance. Rather, as with the overall project management, the Department relied on the contractor to report on the work being performed by Unisys. Consequently, the Department was unaware of the significant problems that existed until late into the process. Ultimately, the Unemployment Tax System for which Accenture had subcontracted with Unisys to develop was never completed as outlined below.

Department of Labor and Employment Unemployment Tax System Subcontract Time Line			
Date	Action		
October 2, 2003	First problems with the Tax System development reported to the Department's Steering Committee by Accenture.		
October 7, 2003	Original contract completion date for the Tax System.		
November 21, 2003	Bilateral change order between the Department and Accenture to move the Tax System completion date to February 2, 2004.		
January 29, 2004	Steering Committee meeting minutes indicate the Tax System was slightly ahead of schedule, as reported by Accenture.		
February 2, 2004	Revised completion date per bilateral change order; System not complete, many errors identified.		
February 20, 2004	Accenture cancels contract with Unisys and takes over the Tax System development. Bilateral change order extends completion date to December 6, 2004.		
December 9, 2004	Department reports to the Commission on Information Management (IMC) that the Project schedule is red (high risk) because the contractual release dates for the Tax and Benefits Systems will not be met, but overall the Project is considered yellow (medium risk) until firm release dates are determined.		
May 2005	Department and Accenture begin dispute resolution process.		
June - November 2005	Negotiations continue; Breach of Contract letter issued to contractor by Department.		
December 2005	Department and Accenture mutually terminate the Genesis Contract.		

Although the Genesis Contract stated that the Contractor was ultimately responsible for the performance of any subcontractor, this provision does not supercede or eliminate the Department's ultimate responsibility for ensuring the performance of the prime contractor and the quality of the goods and services under contract. Further, there was nothing barring the Department from conducting audits, inspections, or other types of monitoring activities to provide adequate quality assurance for the work of the subcontractor. Best practices suggest that periodic visits to work sites, direct observation, verification, testing, etc., are all possible methods for reviewing work in progress and work completed, including the work of subcontractors. The state agency responsible for the contract should complete reports including a record of any deficiencies that may have an impact of satisfactory completion of the project.

Source: Analysis of Genesis Contract, contract amendments, and bilateral change orders.

Enforcement of Penalties

Although the contractor failed to deliver the Tax System on its original completion date, the Department did not enforce the "late milestones" clause of the contract. This clause allowed the Department to assess the contractor a \$1,000 per day penalty for failure to meet delivery dates. For example, the Department could have imposed the penalty from October 7, 2003, the day the Contractor failed to deliver the Tax System, to November 21, 2003 when the bilateral change order extending the deliver date was signed. However, it was not until February 2004 after the Contractor had failed to meet the original and the revised completion dates for the Tax System that the Department enforced the penalty clause for the first and only time during the duration of the Genesis Contract. It should be noted that the penalty the Department chose to apply took the form of service credits and price reductions rather than a cash reimbursement by the contractor. Specifically, the February 20, 2004 contract amendment for the final Tax System schedule change stated, "contractor and State acknowledge that the State's actual additional costs exceed the \$1,231,225 of service credits and price reductions in this Amendment; however, State agrees that this amount of service credits and price reductions is fair and reasonable."

Contract Monitoring Improvements

The Department of Labor and Employment needs to improve its contract monitoring of future information technology contracts. Best practice guidelines the Department should apply include:

- The frequency and manner in which the contractor's performance will be monitored should be clearly stated and directly related to the terms of the contract.
- State agency employees assigned with responsibility for monitoring contractor performance should be familiar with the type of work being performed and with the specific terms of the contract.
- Written documentation pertaining to contractor performance, such as progress reports, site
 visit reports, expenditure data, memoranda of verbal discussions, and written correspondence
 should be maintained and reviewed.
- Periodic visits to work sites or periodic direct observation should be made to review work in progress and work completed, including the work of subcontractors. Reports should be completed and include a record of any deficiencies that may have an impact on the satisfactory completion of the project.
- The evaluation of the contractor's performance should take into account the quantity and quality of the work performed, the timeliness of contract deliverables, the adequacy of cost and performance records and other supporting documentation.
- Performance that is below expectations or not keeping with contractual requirements should be reported immediately to the internal project management hierarchy. All deficiency

- reports should be specific and in writing. Management should review reports and take appropriate action, including financial penalties and contract termination.
- Invoices should be reviewed prior to payment and no payment should be made unless the work is satisfactory and in accordance with the terms of the contract.

Recommendation No. 1:

The Department of Labor and Employment should ensure that the contracts for all future information technology projects are adequately monitored by complying with State Contract Procedures Manual and by adopting best practices such as those described above.

Department of Labor and Employment Response:

Agree. Implementation date: Immediately.

CDLE agrees that a better defined, more rigorous plan for monitoring contractor and subcontractor performance could have identified potential problems earlier and may well have impacted the overall outcome of the project. The department did have an internal contract monitor assigned to the project, had departmental subject matter experts tasked full-time to work with the vendor, assigned a certified project manager to the Genesis Project, and used an independent validation and verification (IV & V) contractor. We relied on the input from all parties in evaluating progress and product quality. However, the contract did not identify specific reviews or audits of the contractor and sub-contractor performance, for both timeliness and quality, at pre-designated points in the development life-cycle. For example, had a planned review of tax code samples compared to the coding standards set in the Accenture Quality Plan been accomplished during the development phase, the issue with Unisys might have been identified and resolved prior to the system test phase. CDLE will include such an audit plan in future IT contracts.

Vendor Reference Checks

When contracting for goods or services, it is standard business practice to conduct reference and background checks of potential vendors. In all cases, reference checks should be tailored to the work to be performed. That is, they should inquire into products or services that are being contracted and the potential contractor's ability to successfully meet the contract specifications. Specificity with regard to reference checks provides greater assurance that the selected vendor is qualified and therefore more likely to deliver the desired results. For a large and/or complex information technology contract such as that required for the Genesis Project, detailed checks into the vendors' technical, as well as administrative or managerial skills and capabilities are essential.

We reviewed the process and procedures used by the Department in conducting reference and background checks of the qualified firms that submitted bids in response to the SUPER System request for proposal. We compared the Department's process and procedures with best practices. We found that the Department did develop and use a standard template of questions in conducting the reference checks of all qualified bidders. However, the reference checks focused on the bidders' management capabilities and did not adequately inquire into past performance and technical expertise or approach.

The reference check template established by the Department and used by the selection committee contained six basic questions. The committee posed these questions to only one individual at each organization that had been identified as a reference by the bidders. Each question was answered using a scale of 1-10, with 10 being the highest. The six areas of inquiry were to rate the:

- Bidder's project manager.
- Bidder's interaction with the project personnel.
- Timeliness of the bidder's evaluation, assessments, and report.
- Quality of the bidder's reports.
- Capability of the bidder's team.
- Overall performance of the bidder.

As the questions indicate, the focus of the reference checks was the management experience and qualifications of the bidders. To strengthen the reference checking process, the Department should obtain sufficient information on bidders' abilities to perform the detailed steps required by the proposed information technology contract. Best practices indicate that for large IT projects, reference checks should include inquiry into the vendor's capability to perform the work by project life cycle stages including general design, technical design, development, testing, quality assurance, and implementation. Background into the vendor's knowledge, skills, and experience with relevant software products, development tools, and databases should also be obtained. Finally, the Department's process involved contacting only a single individual at the organization providing the vendor reference. For projects the size and scope of the Genesis Project, a more comprehensive roster of multiple references, to include technical, administrative, managerial, and user personnel, is advisable.

Recommendation No. 2:

The Department of Labor and Employment should strengthen its reference checking practices for large information technology projects by expanding the reference checks to include:

- a. Information regarding the bidder's managerial and technical knowledge, skills, and experience related to project design, development, testing, and quality assurance.
- b. Information regarding the bidder's knowledge, skills, and experience related to software products, development tools, and databases.

c. Interviews with multiple references in each organization submitted as a reference including management, administrative, technical, and user personnel.

Department of Labor and Employment Response:

Agree. Implementation date: Immediately.

The department followed state procurement guidelines in conducting reference checks of the vendors involved in the bidding process. It is clear that the practice of contacting references supplied by vendors and limiting our checks to a basic set of questions does not support the concept of in-depth background reviews. Future selection procedures will incorporate more robust background checking procedures that address the specific skills and experience required for a particular project.