COLORADO PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION

Legislative Audit Committee Report Year Ended December 31, 2003

With Reports of Independent Accountants



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To the Board of Trustees of Colorado Public Employees' Retirement Association:

We have completed our audits of the financial statements of the Colorado Public Employees' Retirement Association ("PERA") for the year ended December 31, 2003, and have issued an unqualified opinion thereon dated June 11, 2004. Our audits were conducted in accordance with auditing standards generally accepted in the United States of America.

We were engaged to conduct our audits pursuant to Section 24-51-204(6) of the Colorado Revised Statutes, which authorizes the State Auditor to conduct or cause to conduct audits of PERA. The accompanying Table of Contents sets forth the recommendations we have issued as part of our audits. Our audit opinion is located in the Comprehensive Annual Financial Report available from PERA.

Denver, Colorado

Hayl P. Amstrong

June 21, 2004

LEGISLATIVE AUDIT COMMITTEE 2004 MEMBERS

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COLORADO PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION DECEMBER 31, 2003

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Comprehensive Annual Report for the year ended December 31, 2003	Under Separate Cover

SECTION I DESCRIPTION OF PERA

DESCRIPTION OF PERA

Colorado Public Employees' Retirement Association ("PERA") was established in 1931 under Title 24, Article 51 of the Colorado Revised Statutes. PERA administers cost-sharing multiple-employer defined benefit plans for the State and School Division Trust Fund, Municipal Division Trust Fund and Judicial Division Trust Fund ("Division Trust Funds"). PERA also administers a cost-sharing multiple-employer defined benefit healthcare plan ("Healthcare Trust Fund"), the Insurance Dividend Reserve, and a multiple-employer Internal Revenue Code Section 401(k) defined contribution plan ("Voluntary Investment Program"). The purpose of the Division Trust Funds is to provide benefits to members at retirement or disability, or to their beneficiaries in the event of death. Members of PERA are employed by public employers located in the State of Colorado and affiliated with PERA.

Responsibility for the organization and administration of the Division Trust Funds, Healthcare Trust Fund, Voluntary Investment Program and Insurance Dividend Reserve is placed with the Board of Trustees of PERA.

SECTION II AUDIT REPORT SUMMARY

COLORADO PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION AUDIT REPORT SUMMARY DECEMBER 31, 2003

Audits of PERA Benefit Plans for the Year Ended December 31, 2003

Our audits of the December 31, 2003 financial statements of PERA are complete and we issued our unqualified report thereon dated June 11, 2004. There are no matters which we believe require the Audit Committee's specific attention.

- The financial statements of PERA have been prepared in conformity with accounting principles generally accepted in the United States of America and the applicable requirements of the Governmental Accounting Standards Board.
- The scope of our audits was reported to the PERA Audit Committee at the November 20, 2003 meeting. There were no significant variations from the planned scope.

As part of our audits of the financial statements of PERA, we considered its internal control in order to determine our auditing procedures for the purpose of expressing an opinion on the financial statements and not to provide assurance on internal control. Based on the results of our work, our review of PERA's internal control has not disclosed any weaknesses which we believe to be material weaknesses under standards established by the American Institute of Certified Public Accountants. Refer to the Report of Independent Accountants on page VI-1. In addition, we examined PERA's compliance over financial reporting with certain provisions as included in Colorado Revised Statues and PERA Rules. Based on the results of our work, PERA complied, in all material respects, with the attestation standards established by the American Institute of Certified Public Accountants for the year ended December 31, 2003, except for Recommendation Nos. 13, 14 and 15 included in section IV of this report. Refer to the Report of Independent Accountants on page VI-2.

Cooperation With Management

We are pleased to inform you that we received full cooperation of the officers and employees of PERA and we were furnished with all of the information and explanations required to perform our audits.

Communications with Audit Committee

Our responsibility for assuring that the Audit Committee is made aware of significant matters, as required by our professional standards, is outlined in Exhibit I.

Independence

We reiterate our firm's policy on independence, which stipulates that neither PricewaterhouseCoopers LLP partners nor staff assigned to the audits of PERA are permitted to have any direct or material indirect interest in PERA. Adherence to the policy of independence is reaffirmed annually in writing by each member of our professional staff.

To the best of our knowledge, there are no circumstances or relationships between PERA and PricewaterhouseCoopers LLP that would impair our independence in reporting on the PERA's financial statements. We hereby confirm that as of June 21, 2004 we are independent accountants with respect to PERA.

Denver, Colorado June 21, 2004

SECTION III RECOMMENDATION SUMMARY

RECOMMENDATION SUMMARY

Rec.	Page No.	Recommendation	PERA Response	Implementation Date
1	IV-2	Administration Expense	Agree	December 2004/ January 2006
2	IV-4	Alternative Investments	Agree	June 2004
3	IV-6	Internal Audit Functions	Agree	November 2004
4	IV-8	Use of a Service Organization	Agree	November 2004
5	IV-9	Security- Documented Information Security Policy	Agree	Ongoing
6	IV-11	Security- Sharing of Administrator Accounts	Agree	June 2004
7	IV-13	Security- AS/400 Platform	Agree	June 2004
8	IV-15	Security- Monitoring of Security Events	Agree	July 2004
9	IV-17	Review of User Accounts & Access	Agree	July 2004
10	IV-18	Change Management Process	Agree	July 2004
11	IV-19	Direct Access to Production	Agree	February 2004
12	IV-20	Development & Implementation	Agree	June 2004
13	IV-22	Compliance Topic- Purchase of Service Credit Relating to Noncovered Employees	Agree	June 2004
14	IV-24	Compliance Topic – Amortization of Liabilities	Agree	Ongoing
15	IV-27	Compliance Topic – Investment Restrictions	Agree	September 30, 2004

SECTION IV CURRENT YEAR FINDINGS AND RECOMMENDATIONS

CURRENT YEAR FINDINGS AND RECOMMENDATIONS

We have audited the financial statements of Colorado Public Employees' Retirement Association ("PERA") for the year ended December 31, 2003, and have issued our report thereon dated June 11, 2004. In planning and performing our audits of the financial statements, we considered PERA's internal control solely to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide assurance on internal control. We have not considered internal control or compliance over financial reporting since June 11, 2004.

Our procedures were designed primarily to enable us to form an opinion on the financial statements, and therefore may not bring to light all weaknesses in policies or procedures that may exist.

Recommendations noted in connection with the December 31, 2003 audit are detailed in the following pages.

Recommendation No. 1 Administration Expense

Issue:

For the year ended December 31, 2003, PERA allocated approximately \$31 million in administrative expenses to the various plans it oversees. Administrative expenses consist of personnel salaries, staff education, professional contracts, depreciation expense and miscellaneous expenses (related to postage, telephone, memberships, etc) less inter-fund activity which includes tenant and other expenses, Life Insurance Reserve, and the Combined Investment Fund Investment expenses. (Note: these inter-fund expenses are not included in the allocation of administrative expenses because they are included in separate line items of the financial statements). All administrative expenses are held in the common operating fund, and allocated to the individual funds.

Administrative Expenses are allocated to the funds on a monthly basis using a two tier system following Section 24-51-208 to 209, C.R.S.

In the first tier, the 401(k), Heath Care Trust Fund (HCTF) and Insurance Dividend Reserve (IDR) plan expenses are allocated to these funds based on estimated time and resources devoted to these funds. At the beginning of each year, a time study is performed to determine the estimated total administrative salaries used in the allocation. The estimated total salary amount is the key component in the allocation calculation. The time study consists of inquiries of the various departments as to how much time/resources they believe their department will spend related to the 401(k), HCTF or IDR. After this time study is completed, it is then approved by management.

For the second tier, all administrative expenses not directly allocable to 401(k), HCTF, or IDR, are allocated based on a percentage of participants in a plan to the total number of participants in all pension plans at the end of each month. The estimated administrative salaries used to allocate funds to the 401(k), HCTF and IDR are not reconciled to the actual administrative salaries spent on those funds at the end of the year to determine if the estimate was reasonable. In addition, PERA does not have the employees track actual hours spent related to the 401(k), HCTF and IDR throughout the year.

Risk and Implication:

The estimated administrative salaries could be over/understated, thus over/under allocation of expenses could occur. This could have an affect on the 401(k) plan and the over/under funding of the defined benefit plans.

Recommendation No. 1:

PERA should implement a system to track hours spent on the 401(k), Health Care Trust Fund and Insurance Dividend Reserve in order to determine if the time study was accurate. PERA should also reconcile actual salaries to estimated salary amounts at the end of the year, and make appropriate adjustments to administrative expense allocations.

PERA's Response:

Agree. Colorado PERA will reconcile actual salaries to estimated salary amounts at the end of each year and will implement that system for the 2004 year.

PERA staff anticipates significant administrative expenses in the administration of the new PERA defined contribution (DC) plan January 2006 going forward. At that time, a system to track expenses for the new PERA DC plan, the 401(k) Plan, the Health Care Trust Fund, and Insurance Dividend Reserve will be in place.

Implementation Date: December 2004/January 2006

Recommendation No. 2 Alternative Investments

Issue:

PERA invests in several types of alternative investment vehicles including investments in Real Estate, Venture Capital Funds, Leveraged Buyouts, and Partnerships. For the year ended December 31, 2003, PERA reported total alternative investments of approximately \$5.6 billion. PERA records the fair value, income, and expenses of these alternative investments through financial statements received annually from the respective investment advisor. In the event PERA has not received audited financial statements prior to PERA's closing of the general ledger, PERA will book estimates of the fair value, income, and expenses from unaudited financial statements received from the advisors. If audited financial statements are received after closing the general ledger, PERA will adjust the fair value, income, and expenses in the following year.

PERA does not maintain an analysis of adjustments made from recording audited financial statements in the following year. Additionally, for some alternative investment vehicles, financial statements are not received by PERA on a timely basis. In these cases, PERA does not estimate the fair value of the investment, or related income and expenses in its general ledger at year end. During 2003 and 2004, PERA made approximately \$14.9 million and \$0.2 million, respectively, in fair value adjustments for alternative investments related to 2002. As of the end of our audit for the year ending December 31, 2003, PERA had not received audited financial statements for seven alternative investments valued at approximately \$14.2 million. Therefore these investments were not adjusted for their fair value nor were any estimates of income or expenses recorded on the PERA financial statements as of December 31, 2003. PERA does not have a formal policy to obtain financial information from alternative investment vehicles where no financial statements are received from the investment advisor.

Risk and Implication:

The fair value of alternative investments may be overstated or understated for financial statement presentation purposes.

Recommendation No. 2:

PERA should formalize procedures to obtain financial information from alternative investment vehicles where no financial information was provided from the advisor. An estimate of changes in value should be recorded in the general ledger for all investments when financial information is not received. Additionally, PERA should maintain an analysis of differences from un-audited and audited financial statements and review aggregate differences of market value.

PERA's Response:

Agree. Colorado PERA will provide written documentation of the current process for obtaining financial information for alternative investments where no financial information was provided by the partnership. PERA will provide a report and review aggregate differences of market value when all audited financial reporting is booked after the year-end close. PERA

currently records changes in value in the general ledger for all investments when financial information is received.

Implementation Date: June 2004

Recommendation No. 3 Internal Audit Functions

Issue:

Over the past several years the internal audit function has come to be viewed as a critical part of an entity's control environment, particularly in view of the requirements established under the federal Sarbanes-Oxley Act for publicly-held companies. As part of our audit, we reviewed PERA's internal audit function and its role in the organization. While we recognize the need for flexibility in how internal audit resources are used within PERA, we noted some areas for improvement.

Colorado PERA has an internal audit department of 5 employees responsible for reviews of various topics, either done monthly (considered routine) or by specific request for a review (considered non-routine). Through discussions with the Director of Internal Audit, and through review of the updates and reports given to the Board of Trustees, we noted the following:

- Non routine reviews cover periods prior to year under audit (i.e. use of 2001 and 2002 participant data for an audit completed during 2003)
- Completion of a non routine review and final report does not appear to have formal deadlines
- Final audit report formats are not standardized
- Audit committee approves plan of all reviews scheduled for upcoming year, but does not compare plan to actual reviews completed during year
- Internal audit performs routine audits which other departments could perform to alleviate internal audit responsibility

Risk and Implication:

By not systematically maximizing the internal audit function, audits may not produce current information or detect errors prior to the issuance of the financial statements.

Recommendation No. 3:

PERA should utilize the internal audit function to its maximum potential. Based on the understanding above, it is recommended internal audit should ensure non routine reviews with a financial statement impact cover a time frame that encompasses the year under audit, place deadlines on non routine reviews and reports, standardize the final audit reports for consistency and re-evaluate the routine tasks performed by internal audit to determine if they could be done by different departments. In addition, internal audit should periodically submit a report to the PERA Board Audit Committee that compares the reviews scheduled for the year with those actually completed.

PERA's Response:

Agree. Colorado PERA will ensure that non-routine reviews with a financial impact cover a time frame that encompasses the year under audit. In addition, internal audit reviews may also include historical records to detect patterns of errors or exceptions.

Internal Audit will place formal deadlines on non-routine reviews and reports for the 2004 annual audit plan. However, it is essential for internal audit to continue to build a degree of flexibility into the audit plan that includes a percentage of unallocated time to ensure the organization's needs for urgent or unexpected requests are responded to on a timely basis.

PERA's internal audit reports are in compliance with the "Institute of Internal Auditors Professional Practices Framework Practice Advisory 2410-1: Communication Criteria." PERA will evaluate if additional standardization is necessary.

Internal Audit will issue a report to the PERA Audit Committee that compares reviews scheduled for the year to those completed, and will re-evaluate routine audits annually to determine if any could be transferred to other divisions.

Implementation Date: November 2004

Recommendation No. 4 Use of a Service Organization

Issue:

PERA utilizes the services of two third-party organizations for recordkeeping and accounting purposes. Automatic Data Processing (ADP) is the record-keeper for the 401(k) program; this program had net assets of approximately \$914 million as of December 31, 2003. In addition PERA utilizes information processed by The Northern Trust to record investment balances to the general ledger. As of December 31, 2003, PERA recorded approximately \$ 24 billion in investments based on records maintained by The Northern Trust.

Each of these organizations is considered a "service organization" under generally accepted auditing standards and has had a SAS 70 report on its internal controls. A SAS 70 engagement is defined under AICPA *Statements on Auditing Standards* No.70, and is used to determine whether controls are adequate to provide reasonable assurance that transactions are processed as intended. The SAS 70 report discusses the internal controls in place at the service organization and the control environment. The report also includes control exceptions or weaknesses that the organization either does not have in place or are not working properly, in addition to a section regarding user control considerations which the company utilizing the services of the organization, such as PERA, should have in place.

Through discussions with management, it appears PERA has the user control considerations in place, however, the SAS 70 reports are not formally reviewed by PERA.

Risk and Implication:

PERA may not be in compliance with all of the user controls considerations, or mitigating all risks associated with the exceptions or findings. Lack of these controls could lead to a control breakdown or potential misstatements on the financial statements.

Recommendation No. 4:

PERA should formally review the respective SAS 70 reports from service organizations to determine if it is in compliance with the user control considerations and whether any additional controls should be in place at PERA to mitigate control exceptions included in the report. If necessary, PERA should implement any controls not in place as noted from the review of the SAS 70 report and communicate with affiliated employers regarding any additional controls that should be in place at those entities.

PERA's Response:

Agree. Colorado PERA will implement a process to formally review SAS 70 reports from CitiStreet and The Northern Trust to determine compliance with the user control considerations, and will implement additional controls if necessary. PERA will communicate to affiliated employers any additional controls they may need to implement.

Implementation Date: November 2004

Recommendation No. 5 Security – Documented Information Security Policy

Issue:

While security policies and procedures are mutually understood by Information Systems Department (ISD) management, no formal PERA Information Security Policy has been developed and documented for PERA. Measuring adherence to security policies is not possible without formally defining and communicating security policies, standards, and enforcement measures. We understand that the process is under way to complete an overall security policy. Until its completion, management is dependent upon individual interpretation of management's expectations to ensure compliance.

Risk and Implication:

Formal security policies and procedures are essential to adequately control the security environment. Documented and approved Information Security Policies provide the basis upon which to enforce proper security in a consistent and approved manner. Without a formal Information Security Policy, the risk of improper access to and unauthorized use of company data is increased.

Recommendation No. 5:

PERA management should complete and formally approve an Enterprise Security Architecture (ESA) for enhancing its security infrastructure. The major components of an ESA include:

Policies

Policies are the starting point before a company can establish standards, guidelines, and procedures, which allow a company to operate more securely and efficiently. In order for policies to be effective, they need to be current, and viewed and understood by all PERA personnel. Policies should be clear, concise, and written at a high level. They should be in a standard format that is easily maintainable. In order for a policy program to be successful, it needs to have upper management support, be accessible at all times, and be enforced.

Upper Management Support

The policy should be distributed to all department managers in a cover letter signed by the CEO or another member of senior management to state the importance of the policy.

Accessibility

Policies must be accessible. A copy should be given to all employees and changes, additions, and/or updates should be distributed. An electronic copy is recommended allowing updates to be centralized and performed in a timely manner.

Enforcement

Policies need to be enforced. If a policy is violated, management should take immediate corrective action so that violations are not repeated or ignored.

Standards

Standards are mandatory activities, actions, rules, or regulations designed to provide the policies with the support, structure, and specific direction required to be meaningful and effective. Standards can be written for several levels. Some standards may be high-level standards — a standard that is not necessarily meant to be specific enough to drive down to specific technology controls. Other standards may be low-level standards — a standard written to address specific system requirements within the security architecture.

Procedures

Procedures spell out the specifics of how the policy and the supportive standards will actually be implemented in an operating environment. Based on the PERA policies, each department must establish procedures, number of systems, types of configurations, hardware, software, types of information, and the value of the information under their responsibility. As with policies, procedures should be clear, concise, and written in a standard format. Procedures should be accurate and should be reviewed periodically.

Management should also consider implementing a control monitoring process to ensure the policies, standards and procedures are in place as designed and operating effectively.

PERA's Response:

Agree. Colorado PERA has an established security policy although it needs to be reviewed and expanded to cover additional aspects of security that the current policy does not address. PERA's existing policy is stored on PERA's Intranet site and is accessible by all staff members. A copy of the existing policy was provided to the external auditors.

PERA's Information Systems Division (ISD) is currently working on policy revisions for the Division and is working toward meeting the certification requirements of TruSecure. Many of these policies are within ISD's authority to create and implement. However, there are other policies that must be integrated with an overall PERA Information Security Policy.

Implementation Date: Ongoing

Recommendation No. 6 Security – Sharing of Administrator Accounts

Issue:

The Information Systems Department (ISD) is the department that is responsible for the management of Information Technology for PERA. ISD's responsibilities include safeguarding internal assets and sensitive information through the management of appropriate security policies and procedures. System Administrator IDs and passwords, which provide the highest level of system access, are being shared among ISD management and the use of the shared IDs are not monitored. Sharing IDs and passwords significantly reduces the accountability for the use of these accounts. Specific instances noted during the review include:

- Passwords for high level accounts are being stored in secure Microsoft Exchange folders. These folders protect the high level passwords from the user community, but this approach significantly reduces accountability for the use of these accounts by IT management. Access to these folders is not being actively monitored at this time.
- Two Oracle Administrator accounts are being shared by multiple users. The use of
 these accounts is not monitored. These accounts grant the ability to directly access and
 change PeopleSoft data and include the 'SYS' and 'SYSADMN' accounts. The 'SYS'
 and 'SYSADMIN' accounts provide the highest level of access within the PeopleSoft
 application.

Risk and Implication:

Distribution of privileged account passwords to multiple users weakens the effectiveness of a stringent password policy and significantly reduces user accountability.

Recommendation No. 6:

PERA should improve controls over passwords by distributing privileged account passwords for all systems only to users who require this access for a legitimate business purpose. Where possible, each user with a privileged account should have a unique ID and password. Administrators should be required to log in using their own unique account to enforce user accountability.

In certain circumstances, the technology may not allow for unique IDs. In such instances, management should establish a routine monitoring procedure to ensure the usage of the ID is appropriate.

PERA's Response:

Agree. Colorado PERA has implemented the external auditor's recommendations as follows:

• Individual accounts have been created for SYS for the two individuals that work in Oracle Administration. The SYS and SYSADM accounts are required for PeopleSoft and Oracle to function. The passwords for these accounts are documented and can be accessed only by staff members with a legitimate business purpose.

- Individual accounts have been created for the AS/400 to be used by the primary and backup system administrators. The QSECOFR account is still required for the platform to function. The QSECOFR password is documented and can be accessed only by staff members with a legitimate business purpose.
- Passwords have been moved out of the secured Microsoft Exchange Public folders into
 a secured file share on Windows Server 2003. The permissions to the sub-directories
 on the share have been established and auditing has been turned on to log access to the
 repository. Rights have been assigned for each platform so that appropriate
 password(s) can only be accessed by select Information Systems Division (ISD) staff
 members for legitimate business purposes.

Implementation Date: June 2004

Recommendation No. 7 Security – AS/400 Platform

Issue:

The AS/400 is the software platform upon which the Benefit Administration System resides. The primary purpose of the Benefit Administration System is to maintain member data and perform benefit calculations. During our 2002 review, it was noted that a consistent process does not exist to proactively monitor the security settings of the AS/400 platform. Our 2002 audit report recommended that PERA implement an internal process to periodically review the AS/400 platform security, and PERA agreed with the recommendation. However, during our 2003 review we found that the recommendation had not been implemented.

Specifically, during our audit we compared PERA's AS/400 system security settings with the recommended best practice standards and noted areas where changes to the settings would result in improved security:

Administrator Account: The administrator account provides unrestricted access to the AS/400 system, programs, and data. A single individual owns the user access to this account and has the ability to change production data. A process does not exist for reviewing changes made to production data by the administrator account.

Risk and Implication:

Unauthorized access to the AS/400 could compromise data integrity and result in the potential misstatement or misuse of financial data.

Recommendation No. 7:

PERA should implement an internal process to periodically review the AS/400 platform security to ensure the security settings meet best practice specifications. Management should take the following steps to address the specific findings noted during our review:

A process should be implemented for reviewing changes made to production data by the administrator account. A manager responsible for the AS/400 administrator's activities should review the log regularly.

PERA's Response:

Agree. All of the items from the 2002 audit were implemented with the exception of the procedure for locking out accounts that have not been used in 90 days. This procedure will be implemented in June 2004.

Colorado PERA has received two specific best practices standards from the external auditor and is reviewing these to assess the implications of changing the security environment for PERA's AS/400.

PERA will create a program to review the audit trail on production data and query any changes made by an administrative account. A notification message will be sent to the

Information Systems Division manager responsible for the AS/400 administrator's activities if an unauthorized change is found.

Implementation Date: June 2004

Recommendation No. 8 Security – Monitoring of Security Events

Issue:

PERA ISD Management does not have formal policies and procedures regarding the monitoring and review of security events. These events could include unauthorized access to sensitive information, deletion of important data, and/or corruption of data. Monitoring standards should encompass aspects of the organization that affect security. Specific findings noted during our review include:

- Evidence that PERA actively monitors Argent Logs, logs which report on network processes and activity, does not exist;
- No periodic review of direct access to PeopleSoft data is performed;
- No periodic review of the secure folders that contain system passwords is performed;
- No periodic review of the appropriateness and adherence to the network security settings is performed. One user has a Windows 2000 account password that is set never to expire; and
- No formal periodic review of the appropriateness of keycards that grant physical access to the data center is performed. One user currently has two active keycards. Both of these cards grant access to the data center.

Risk and Implication:

To meet the goals of a strong Information Security Policy, monitoring standards and procedures should be clearly defined. These standards and procedures provide the details required to achieve the security goals stated in the policy. Without formal monitoring of information security events, security breaches may occur and go undetected. Formal monitoring of security events will increase the likelihood of finding, addressing, and preventing unauthorized actions by users.

Recommendation No. 8:

PERA management should implement a risk-based approach to ensure monitoring efforts have been appropriately prioritized. ISD management should monitor important security events in a consistent and timely manner, and retain evidence of this monitoring for subsequent review. These events should include, unsuccessful logon attempts, unsuccessful access to directories and/or files, successful and unsuccessful changes of users' access rights, users with physical access to the datacenter, and Super User (i.e., users with all access to the system or application) account activities.

PERA's Response:

Agree. Colorado PERA's approach in this area has been to proactively protect against security breaches before they happen through the use of network group policy, physical security, and the use of an outside security service to analyze the security environment. PERA captures extensive logging information on critical platforms and this information is used to manage the environment and research problems. PERA has improved its ability to consolidate server log information and proactively informs network administrators of events as they occur.

The Information Systems Division will continue to review and maintain a subset of the logging information on a timely and cost effective basis and document those reports for review.

Implementation Date: July 2004

Recommendation No. 9 Review of User Accounts & Access

Issue:

As of December 2003, there were approximately 192 individual users with access to the AS/400 information system, 68 to the PeopleSoft system, and 57 to the PORTIA investment system. For each user, an account and profile is established that defines which systems the user can access and the types of activities that the user can perform in each. PERA does not have consistent and formal procedures for reviewing the appropriateness of user accounts and profiles. A periodic review ensures access to systems remains appropriate over time and that user access is commensurate with assigned duties involving the use of the key business applications and the PERA network.

Risk and Implication:

The lack of a review procedure for the appropriateness of user access for the key business applications and the PERA network could lead to unauthorized access to key financial data, which could result in the intentional or accidental misstatement of financial data.

Recommendation No. 9:

PERA management should ensure that reviews are performed periodically on the appropriateness of users' access to PERA's key business applications (ie. AS400, PeopleSoft, Longview, PORTIA) and the Windows 2000 network occur periodically to ensure access rights remains commensurate with job responsibilities.

Management should create formal procedures requiring these reviews and monitor to ensure that reviews of user accounts are performed regularly.

PERA's Response:

Agree. Colorado PERA agrees with this recommendation and will document formal procedures to review and monitor access to business applications, in addition to documenting the review of the monitoring process.

Implementation Date: July 2004

Recommendation No. 10 Change Management Process

Issue:

While mutually understood change management procedures exist among PERA's ISD personnel, these procedures are not formally documented. Therefore, ISD management is not able to measure adherence to these standards and procedures for all changes made to computer applications because evidence of authorization, user testing and acceptance, technical documentation, and applicable user training is not always retained. During the review, we noted:

- A formal approval process for migrating changes to production is not consistently followed and evidenced across all platforms and applications.
- Formal channels of communication exist for user sign-off and approval of test results prior to implementation of system changes, but no evidence of authorization is available for testing.

Risk and Implication:

The lack of documented standards and procedures within the change management environment could lead to unauthorized application changes being implemented into the production environment. The lack of standards and procedures could adversely affect the accuracy of financial data.

Recommendation No. 10:

PERA management should strengthen and document the procedures for applying changes to significant applications. A test environment for making changes to these applications should be established to give management assurance that all changes are properly authorized, documented and monitored. Once changes are initiated and authorized by the user community, management should formally approve, evaluate, and prioritize the change. Management should also ensure that the change is formally monitored, tested, and implemented on a timely basis. Once the user community has adequately tested the change, the application owner should formally approve the transfer of the change from the test environment to production. Evidence of authorization and user testing should be retained.

PERA's Response:

Agree. While there is a formal approval process for all development platforms, Information System Division management agrees that this process is not fully documented.

The implementation of the Request For Change (RFC) process now provides formal documentation for each change made to production. Changes are initiated and authorized by the user community and formally evaluated, approved, and prioritized by two levels of PERA management for significant projects. The RFC process also provides for authorization of moving changes from the test environment to a production environment. Communication of these changes is given to the project sponsor and project requestor.

Implementation Date: July 2004

Recommendation No. 11 Direct Access to Production

Issue:

ISD developers have direct access to implement programming changes to the Delphi production directory. Delphi is used as the primary integration tool for PERA applications, thus allowing for a smooth communication between applications within PERA's environment.

Risk and Implication:

Developers could implement unauthorized changes to the Delphi environment. Unauthorized changes could cause the Windows applications to malfunction and therefore affect the integrity of information provided to management from PERA's information systems.

Recommendation No. 11:

PERA management should ensure that security controls exist that limit access to the Delphi directory to only authorized individuals.

PERA's Response:

Agree. Colorado PERA agrees with this recommendation and has modified the security over the Delphi production repository to exclude rights from individuals that are not authorized to move code to production. The Delphi environment now follows the same change management model used for RPG and Java development.

Implementation Date: February 2004

Recommendation No. 12 Development & Implementation

Issue:

In October 2003, PERA implemented a financial accounting and reporting application, PeopleSoft. The PeopleSoft application replaced the ROSS financial application. As part of our audit, we reviewed the application implementation process and audited the financial numbers converted from ROSS to PeopleSoft to ensure the conversion occurred properly.

While mutually understood policies and procedures exist guiding activities and procedures for application implementation within ISD and amongst the PeopleSoft implementation project team, adherence to these policies and procedures is not measurable at this time due to the lack of a documented Systems Development Lifecycle Methodology. Accordingly, the following exceptions were noted for the implementation of the PeopleSoft application:

- No formal test plan was developed for the PeopleSoft user testing; and
- While the PeopleSoft 'Go-Live' decision was made by consensus, no formal record of adherence to the change management policy existed, such as the signatures of business and ISD management.

Risk and Implication:

Development and implementation projects that are large-scale in nature, such as the PeopleSoft implementation, that do not follow a controlled process are more likely to interrupt production processing and may fail to meet the intended business purpose.

Recommendation No. 12:

PERA should formally document a policy to address development and implementation projects. The policy should address controls for projects of various sizes and the following areas should be included:

- Project management/development life cycle
- Project initiation
- Analysis and Design
- In-house development or package selection
- Quality assurance
- Data conversion
- Go-Live
- Documentation and training

PERA's Response:

Agree. Colorado PERA agrees with this recommendation. The exceptions noted from the PeopleSoft implementation project did not interrupt production processing and the project was completed under budget, on time, and met the intended business purpose. The level of documentation and formality in project management at PERA is determined by the size and scope of the project.

This one event does not represent the development and implementation practices followed at PERA for projects of this size.

Implementation Date: June 2004

Recommendation No. 13 Compliance – Purchase of Service Credit Relating to Noncovered Employees

Issue:

Under the PERA defined benefit plan, members may be eligible to purchase years of PERA service on the basis of years in noncovered employment, i.e., employment with a nonparticipating employer. Section 24-51-505 (7), C.R.S., "Purchase of service credit relating to noncovered employment" states:

"A portion of the amount paid by a member to purchase service credit related to noncovered employment shall be transferred to the health care trust fund on the effective date of the member's retirement or, in case of death prior to retirement, on the effective date of the survivor benefit. The amount transferred shall be one and one-tenth percent of the member's highest average salary at the time of the purchase, with interest at the rate specified in section 24-51-101 (28) (a) [note: section 24-501-101 (28) "Interest" means: (a) The actuarial investment assumption rate compounded annually for any interest charged to a member or benefit recipient pursuant to the provisions of this article"]".

This law became effective on November 1, 2003. Members who retired during November and December 2003 had previously purchased approximately \$36.8 million and approximately \$43.1 million, respectively, worth of years of service.

Upon review of the "Manual Calculation of Health Care Trust Fund Transfers from PSC" report for the retirement months of November 2003 and December 2003, we determined the interest rate used to calculate the transfer amount into the Health Care Trust Fund related to service years purchased for noncovered employment of retirees in November was 8.75%, the 2003 actuarial interest rate, whereas the interest rate used to calculate the transfer amount in December was 8.5%. The rate used for December, 8.5%, is the actuarial rate effective January 1, 2004. Therefore, PERA was not in compliance with the statutory requirement to use the actuarial investment assumption rate for the interest calculation related to these transfers for December 2003. As a result, the accrual for interest due to the Health Care Trust Fund by the defined benefit trust funds was understated by approximately \$1,000 at December 31, 2003.

PERA elected not to make these adjustments on the year end financial statements.

Recommendation No. 13:

PERA should ensure that the correct actuarial interest rate is used when determining the amount of interest to be transferred to the Health Care Trust Fund related to service year purchases.

PERA's Response:

Agree. Colorado PERA will ensure that the correct actuarial interest rate is used when determining the amount of interest to be transferred to the Health Care Trust Fund (HCTF). PERA will also make an adjustment for \$1,119.73 for the under-allocation of interest to the HCTF for service year purchases related to retirements in December 2003. The procedure for

the review of this interest calculation will include examination by staff in two separate Divisions (Accounting and Information Systems).

Implementation Date: June 2004

Recommendation No. 14 Compliance Topic – Amortization of Liabilities

Issue:

As part of the preparation of its annual financial statements, PERA is required to estimate the unfunded liability for each of the three divisions that participate in the defined benefit plan offered to state employees. The total estimated unfunded liability as of 12/31/03 for the state and school division is approximately \$9.4 billion, for the municipal division is approximately \$471.4 million and judicial division is \$31.7 million. The amortization period is the number of years it will take to fund these unfunded liabilities.

Section 24-51-211, C.R.S, "Amortization of Liabilities", states:

"An amortization period for each of the state and school division, municipal division, and judicial division trust funds shall be calculated separately. A maximum amortization period of forty years shall be deemed actuarially sound. Upon recommendation of the board, and with the advice of the actuary, the employer or member contributions rates for the plan may be adjusted by the general assembly when indicated by actuarial experience."

Through review of the 2003 Actuarial Valuation completed by Mellon Human Resource Solutions, dated May 25, 2004, it was noted that the remaining amortization period has been determined to be infinite for each of the three divisions (i.e., state and school division, municipal division, and judicial division). In other words, the results of the Valuation study indicate that under PERA's current actuarial assumptions, none of the divisions are expected to receive sufficient contributions and earnings to fund all the benefits that PERA is obligated to pay. Overall, the three divisions have a combined funded ratio of 76% as of 12/31/03, which means that PERA's total accumulated assets are 76% of the total liabilities for the divisions.

In addition, because the amortization period is infinite for all three divisions, PERA is not in compliance with the terms of Section 24-51-211, C.R.S., which requires that the divisions have a maximum amortization period of forty years to be actuarially sound. Therefore, under state law the PERA Board, upon recommendation from the actuary, is required to work with the General Assembly to seek changes in the employer and/or member contributions in order to bring the divisions into funded status.

During the 2004 Session PERA worked with the Governor and the General Assembly on the passage of Senate Bill 132 and Senate Bill 257. The major provisions of these bills include:

<u>Senate Bill 04-132. Suspension of MatchMaker Contributions</u> (passed by the Legislature on April 20, 2004, and signed by the Governor on April 30, 2004.):

- Suspend MatchMaker contributions beginning June 1, 2004.
- Reduce interest credit on member contributions to a maximum of 5 percent per year, beginning July 1, 2004.

- The due date for contributions to be delivered by PERA employers to PERA will change to 5 business days after the payroll date, effective July 1, 2004.
- Reallocate 0.08 percent of salary of future employer contributions to the PERA pension trust funds rather than to the PERA Health Care Trust Fund.
- Provide that members hired on or after July 1, 2005:
 - o Will not be eligible for full retirement benefits at age 50 with 30 years service.
 - Will receive annual post-retirement increases of 3 percent or the actual change in the Consumer Price Index, whichever is lower.

<u>Senate Bill 04-257. Public Employee Retirement Plans</u> (passed the Senate on April 30, 2004, and the House passed the bill on May 5, 2004; signed by the Governor on June 4, 2004):

- An "Amortization Equalization Disbursement" (AED) will be established which requires each PERA employer to pay 0.5 percent of salary to PERA each year, beginning January 1, 2006, increasing by 0.5 percent of salary in 2007 and by 0.4 percent of salary each year thereafter, reaching a maximum of 3 percent of salary in 2012 and thereafter. If at some point in the future the AED reduces the amortization period below 40 years, the AED payment would be scaled back below 3 percent of salary. If PERA approached 100 percent funded status, the AED would be repealed.
- The State and School Divisions will separate beginning January 1, 2006. The School Division will not have the DC (defined contribution) plan option and creating a separate division protects the School Division from any funding deterioration the DC option could cause in the State Division.
- Increase in School employer rates. The actuarial cost of PERA benefits for school members is about 0.4 percent of salary higher than for state members. To reflect this cost in School Division rates, the School employer contribution rate to PERA will increase by 0.4 percent of salary, beginning January 1, 2013.
- New state employees hired on or after January 1, 2006, will have the option to be covered by PERA or the State DC Plan. This decision will be made in the first 60 days of employment and will be irrevocable. If the member chooses PERA, he or she may elect into the PERA DC plan if they wish. If no election is made within 60 days, the new employee will be covered by the PERA DB plan. The AED will be paid by employers on the payroll of PERA members as well as on the payroll of new hire state employees who elect the State DC Plan instead of PERA.
- Employees in higher education would not have the options added by SB 257.
- An employee covered by the State DC Plan, or by the PERA DC Plan, who moves to a position at an institution of higher education, could continue membership in that plan while in higher education. Existing higher education employees, and new hires coming directly into higher education positions remain covered as they have been under PERA's current DB plan or by an ORP, if the institution has one for their faculty and other employees who are exempt from the state personnel system.
- Requires employer contributions to be paid for a PERA retiree working for a PERA affiliated employer beginning July 1, 2005.
- Renames the Municipal Division the PERA Local Government Division.

Even with the provisions described in the Senate Bills, the projections provided by PERA's actuary indicate that the combined funded ratio is expected to decrease from 76% to 60.4% by 2030. However, without the provisions, the funded ratio is projected to decrease to 34.5% by 2030.

Recommendation No. 14:

PERA should continue to work with the Governor and the General Assembly to seek changes in the employer and/or member contributions and other plan provisions for the state and school division, the municipal division, and the judicial division trust funds in order to achieve statutory compliance with the 40-year amortization period.

PERA's Response:

Agree. Colorado PERA agrees that working with the Governor and the General Assembly to improve the funded status of the PERA trust funds and meet the statutorily recommended 40-year amortization period is desirable.

Legislation in 2003 and 2004 was proposed by Colorado PERA to help stabilize the ratio of assets to liabilities over the long term. Legislation enacted in 2004 will increase employer contribution rates, as recommended by the actuary. In addition to this legislation, the PERA Board of Trustees has taken steps to contain liabilities that include increasing the cost to purchase service credit and imposing a limit on the amount of service that can be purchased. Moreover, the Board continues to evaluate the funding formula assumptions and make changes as appropriate.

In recognition of member employers' budget restrictions, the increase in employer contributions to PERA from Senate Bill 04-257 will be effective beginning in 2006. Funding progress will continue to be measured annually, and further steps as appropriate will be considered.

With assets totalling \$29 billion and expected positive cash flows, there is no financial crisis facing PERA.

Implementation Date: Ongoing

Recommendation No. 15 Compliance Topic – Investment Restrictions

Issue:

Under the PERA defined benefit plan, Investments are purchased and held to fund the benefit liability. Section 24-51-206 (3)(a) and (b), C.R.S., "Investments" states:

- (a) Aggregate amount of moneys invested in corporate stocks or corporate bonds, notes or debentures which are convertible into corporate stock or in investment trust shares shall not exceed 65% of the then book value of the fund
- (b) No investment of the fund in common or preferred stock, or both, of any single corporation shall be of an amount which exceeds five percent of the then book value of the fund, nor shall the fund acquire more than twelve percent of the outstanding stock or bonds of any single corporation

Per discussions with Accounting personnel relating to Section 24-51-206 (3) (a), on a monthly basis, PERA determines the percentage invested in corporate stocks (or equities). However, based on our review, we could not determine if corporate bonds, notes or debentures that are convertible were included in this calculation.

Due to the uncertainty if all investments specified in the statutes were included in the percentage calculation, we are unable to determine if PERA is in compliance with this provision.

In addition, per discussions with Internal Audit relating to Section 24-51-206 (3) (b), starting in April 2004, reviews of investment restrictions surrounding the portfolio's equity ownership were initiated. Through review of reports provided by Internal Audit subsequent to December 31, 2003, PERA appears to not have invested in any single corporation's common or preferred stock in excess of 5% of the then book value of the fund nor does it appear PERA has acquired more than 12% of the outstanding stock of a single corporation. However, debt securities were not included as a part of the review for compliance related to the 12% rule. Although the intention of Internal Audit is to perform such reviews in the future, no formal plan exists.

Due to the lack of testing or review of the holdings at December 31, 2003 or throughout 2003, we are unable to determine if PERA has continually been in compliance with this provision.

Recommendation No. 15:

PERA should determine if all types of investments stated in Section 24-51-206 (3) (a), C.R.S. are included in the test for compliance and continue to perform the test on at least a quarterly basis.

In addition, PERA should implement a formal process to review both debt and equity holdings on at least a quarterly basis to ensure that PERA remains in compliance with the provisions of Section 24-51-206 (3) (b), C.R.S.

PERA's Response:

Agree. Section 24-51-206 (3) (a) compliance is reviewed monthly. This monthly report is expanded into a full compliance report if PERA is approaching the 65 percent threshold. As of December 31, 2003, 54.05 percent of the fund's book value was represented by investments specified in this Section. Our report has been modified to include convertible issues. Investments convertible into corporate stock consisted of 0.31 percent of the 54.05 percent. We agree it is imperative to accurately track compliance and believe the monthly report does so.

Diversification has been monitored at time of purchase for Section 24-51-206 (3) (b) compliance. Formalizing the reporting process is desirable. We are compliant with the 5 percent rule related to any single investment as well as the 12 percent concentration limitation related to bonds or stocks. For example, domestic equity shares are below the 12 percent threshold and the vast majority represents less than 1 percent of outstanding shares. Bonds are below the 12 percent threshold and the vast majority represents less than 1 percent of outstanding par amount. Adopting a formal quarterly reporting process is appropriate and would enhance transparency of compliance with Section 24-51-206 (b).

Implementation Date: September 30, 2004

SECTION V DISPOSITION OF PRIOR YEAR RECOMMENDATIONS

DISPOSITION OF PRIOR YEAR RECOMMENDATIONS

The following are the audit recommendations included in the Colorado Public Employees' Retirement Association audit report for the year ending December 31, 2002, and their dispositions as of December 31, 2003:

Recommendation	Disposition		
Review of Comprehensive Annual Report	Implemented May 2004		
Review of changes to Electronic Funds Transfer information	Implemented December 2003		
Security of the AS/400 Platform	Refer to Recommendation No. 7		
Security of the Ross Accounting Application	Implemented July 2003		

The following audit recommendation was included in the Colorado Public Employees' Retirement Association audit report for the year ending December 31, 2001, and is included in this report as it was not fully implemented as of December 31, 2002. The following is the disposition as of December 31, 2003:

Recommendation	Disposition	
Perform reconciliation on externally managed investments	Implemented July 2003	

SECTION VI REPORTS OF INDEPENDENT ACCOUNTANTS



PricewaterhouseCoopers LLP Suite 1000 1670 Broadway Denver CO 80202-4870 Telephone (720) 931 7000

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Report of Independent Accountants

To the Board of Trustees of Colorado Public Employees' Retirement Association:

In planning and performing our audit of the financial statements of Colorado Public Employees' Retirement Association ("PERA") for the year ended December 31, 2003, we considered its internal control, including control activities for safeguarding securities, in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements, not to provide assurance on internal control.

The management of PERA is responsible for establishing and maintaining internal control. In fulfilling this responsibility, estimates and judgments by management are required to assess the expected benefits and related costs of controls. Generally, controls that are relevant to an audit pertain to the entity's objective of preparing financial statements for external purposes that are fairly presented in conformity with generally accepted accounting principles. Those controls include the safeguarding of assets against unauthorized acquisition, use or disposition.

Because of inherent limitations in internal control, errors or fraud may occur and not be detected. Also, projection of any evaluation of internal control to future periods is subject to the risk that controls may become inadequate because of changes in conditions or that the effectiveness of their design and operation may deteriorate.

Our consideration of internal control would not necessarily disclose all matters in internal control that might be material weaknesses under standards established by the American Institute of Certified Public Accountants. A material weakness is a condition in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements caused by error or fraud in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. However, we noted no matters involving internal control and its operation, including controls for safeguarding securities, that we consider to be material weaknesses as defined above as of December 31, 2003.

This report is intended solely for the information and use of management, the board of trustees and the Legislative Audit Committee, and is not intended to be and should not be used by anyone other than these specified parties. However, this report is a matter of public record upon release by the Legislative Audit Committee.

June 11, 2004

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Report of Independent Accountants

To the Board of Trustees of Colorado Public Employees' Retirement Association:

We have examined Colorado Public Employees' Retirement Association's ("PERA") compliance with PERA Rules and the Colorado Revised Statues related to financial reporting during the year ended December 31, 2003. The following sections were specific to our review:

- PERA Rules
 - o 2.90 Actuarial Assumptions
 - o 4.40 Refunds
 - o 5.30 Payments for Purchase Service Credits
 - o 5.40 Interest Rate
 - o 10 Increase in Benefits
 - o 10.30 Retroactive Effective Date of Retirement or Survivor Benefit
- Colorado Revised Statues
 - o 24-51-206 Investments
 - o 24-51-208 Allocation of Moneys
 - o 24-51-210 Allocation of assets and liabilities
 - o 24-51-211 Amortization of liabilities
 - o 24-51-401 Employer and Member contributions
 - o 24-51-405 Refund of a members contribution account
 - o 24-51-406 Payments from the judicial division
 - o 24-51-407 Interest (member contributions)
 - o 24-51-503 Purchase of Service Credit related to a refunded account
 - o 24-51-603 Benefit formula for service retirement
 - o 24-51-1206 Health care premium subsidiary
 - o 24-51-1403 Expenses of voluntary investment program (VIP).

Management is responsible for PERA's compliance with those requirements. Our responsibility is to express an opinion on PERA's compliance based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants and, accordingly, included examining, on a test basis, evidence about PERA's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances. We believe that our

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examination provides a reasonable basis for our opinion. Our examination does not provide a legal determination on PERA's compliance with specified requirements.

In our opinion, PERA complied, in all material respects, with the aforementioned requirements for the year ended December 31, 2003. However, the results of our auditing procedures disclosed instances of non compliance with those requirements which are described in Recommendation Nos. 13, 14 and 15 included in the Legislative Audit Committee Report and the PERA Audit Committee Report.

This report is intended solely for the information and use of management, the board of trustees and the Legislative Audit Committee, and is not intended to be and should not be used by anyone other than these specified parties. However, this report is a matter of public record upon release by the Legislative Audit Committee.

June 11, 2004

Pricewetachouse Coopers LLP

EXHIBIT I PRICEWATERHOUSECOOPERS LLP RESPONSIBILITY

Exhibit I – PricewaterhouseCoopers LLP Responsibility

It is our responsibility to ensure that you, the Audit Committee, receive information regarding the scope and results of the audits that may assist you in overseeing PERA's financial reporting and disclosure process for which management is responsible. In this regard, generally accepted auditing standards require us to:

Based upon our audit procedures completed, we woul like to advise you that:

The auditor's responsibility under generally accepted auditing standards

- Communicate to you the nature of the assurance provided by an audit and the level of responsibility we assume under generally accepted auditing standards.
- This was communicated to the PERA Audit Committee on June 21, 2004 and through this report to the Legislative Audit Committee.

Auditor's judgments about the quality of accounting principles

- Discuss the quality, not just the acceptability, of the accounting principles applied in PERA's financial reporting.
- This was discussed with the PERA Audit Committee on June 21, 2004 and will be discussed with the Legislative Audit Committee at the August 24, 2004 meeting.

Significant accounting policies

- Determine that you have been informed about the initial selection of and changes in significant accounting policies or their application, as well as methods used to account for significant unusual transactions.
- No changes in significant accounting policies or their application have taken place nor have there been any significant unusual transactions.

Management judgments and accounting estimates

- Determine that you have been informed about the process used by management in formulating particularly sensitive accounting estimates.
- Significant estimates made by management include valuation of certain investments not traded on exchanges for which a quoted market price exists, valuation of certain real estate investments, the actuarial valuation of its assets and liabilities and certain selfinsured liabilities of the Health Care Fund.

Significant audit adjustments

- Inform you about adjustments arising from the audits which could, in our judgment, either individually or in the aggregate, have a significant effect on PERA's financial reporting process.
- No significant adjustments resulted from our audits.

Exhibit I – PricewaterhouseCoopers LLP Responsibility

Uncorrected misstatements

- Inform you of any uncorrected misstatements identified by us during the audit that were determined by management to be immaterial, individually and in the aggregate, to the financial statements taken as a whole.
 - There were no significant uncorrected misstatements identified during our audits.

Potential affect on the financial statements of any significant risks and exposures

• Inform you of any major risks and exposures facing PERA, and how they are disclosed.

• We are not aware of any other items that may have a potential effect on the financial statements other than what has been disclosed in the CAFR.

Material uncertainties related to events and conditions specifically going concern issues

- Discuss with you any doubt regarding the entity's ability to continue, as a going concern (if extended procedures, communicate results) and any other material uncertainties.
- There was no such instance that came to our attention.

Other information in documents containing audited financial statements

- Advise you that we have no responsibility to perform any audit work on other information in documents containing audited financial statements. However, we will read the other information and consider whether such information is materially inconsistent with information appearing in the financial statements or our knowledge of the operations of PERA.
- We have read the information contained in the Comprehensive Annual Financial Report and have no matters to communicate.

Disagreements with management

- Discuss with you any disagreements with management, whether or not satisfactorily resolved, about matters that individually or in the aggregate could be significant to PERA's financial statements or our reports thereon.
- We have had no such disagreements with management.

Consultation with other accountants

- Discuss with you our views on significant accounting and auditing matters that were the subject of management's consultation with other accountants, when we have been informed of such consultations.
- We are not aware of any such consultations.

Exhibit I – PricewaterhouseCoopers LLP Responsibility

Major issues discussed with management	 Advise you of major issues discussed with management price to our retention or reappointment. 	No such issues were discussed.
Difficulties encountered in performing the audits	 Advise you of any serious difficulties encountered in performing the audits. 	We encountered no serious difficulties.
Fraud	 Communicate any fraud that comes to our attention involvir senior management and fraud (whether caused by senior management or other employees) that causes a material misstatement of the financial statements. 	No such matters came to our attention.
Illegal acts	 Communicate any illegal acts involving senior management that come to our attention and obtain assurance that you are adequately informed about any other illegal act that came to our attention, unless clearly inconsequential. 	No such matters came to our attention.
Deficiencies in internal control	 Communicate any significant deficiencies or material weaknesses in the design or operation of internal control that came to the auditor's attention during the audit. 	No material weaknesses or reportable conditions were noted as established by the American Institute of Certified Public Accountants. Refer to the Report of Independent Accountants on page VI-I.

Denver, Colorado June 21, 2004

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