MEMORANDUM

Date: August 22, 2011

To: Members of the Legislative Audit Committee

From: Dianne E. Ray, CPA, State Auditor

Re: Concealed Handgun Permit Database Status Report

Attached please find the audit recommendation status report provided to us by the Colorado Department of Public Safety on August 9, 2011. This report outlines the current status of recommendations addressed in the November 2010 Concealed Handgun Permit Database Performance Audit.

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AUDIT RECOMMENDATION STATUS REPORT

AUDIT NAME: Concealed Handgun Permit Database Performance Audit
AUDIT NUMBER: #2104
DEPARTMENT/AGENCY/ENTITY: Colorado Bureau of Investigation / Department of Public Safety
DATE: November 2010

SUMMARY INFORMATION

Recommendation Number *(e.g., 1a, 1b, 2, etc.)*	Agency's Response *(i.e., agree, partially agree, disagree)*	Original Implementation Date *(as listed in the audit report)*	Implementation Status *(Implemented, Implemented and Ongoing, Partially Implemented, Not Implemented, or No Longer Applicable)* Please refer to the attached sheet for definitions of each implementation status option.	Revised Implementation Date *(Complete only if agency is revising the original implementation date.)*
1a	Agree	Assessment to be completed by July 2011	No longer applicable	
1b	Agree	Implemented	Implemented	
1c	Agree	Implemented	Implemented	
1d	Agree	Implemented	Implemented	
1e	Agree	December 2011	Implemented and ongoing	
1f	Agree	Ongoing	Implemented and ongoing	
1g	Agree	Deletion of identified records by July 2011	No longer applicable	
2a	Agree	December 2011	No longer applicable	
2b	Agree	December 2011	No longer applicable	
2c	Agree	August 2011	No longer applicable	
2d	Agree	December 2011	No longer applicable	
3	Agree	July 2011	Implemented	

DETAIL OF IMPLEMENTATION STATUS

Recommendation #: 1a

Agency Addressed: Department of Public Safety

Recommendation Text in Audit Report:

> The Department of Public Safety should work with the Governor's Office of Information Technology to further improve the security of the Colorado Crime Information Center (CCIC) and the concealed handgun permit database within CCIC by:
>
> a. Encrypting data at rest in the concealed handgun permit database and when transferred to external media, if the General Assembly authorizes the continuation of the database beyond July 1, 2011.

Agency's Response *(i.e., Agree, Partially Agree, or Disagree)*: **Agree**

Agency's Written Response in Audit Report:

> The State Cyber Security Policies set forth standards for data residing on state computer systems when data are considered at rest. The Department-assigned technology staff from the Office of Information Technology (OIT) will conduct an assessment study on methods to best encrypt the CCIC databases which will include the concealed handgun permit database. The Colorado Bureau of Investigation (CBI) will collaborate with OIT to determine if the best course of action is to implement full disk encryption, database encryption, or request a waiver from the Colorado Office of Cyber Security. The Department may need to seek additional funding in order to meet this requirement. The Department plans to encrypt data on external media.
>
> It should be noted that Federal Bureau of Investigation security policy, Section 5.10.1.2, requires no encryption of rest data when the data are maintained in a secured location. CCIC data are located at the CBI facility, which is a secured facility.

Agency's Current Comments on Implementation Status of Recommendation:

This recommendation is no longer applicable with the deletion of the Concealed Handgun Permit Database.

Recommendation #: 1b

Agency Addressed: Department of Public Safety

Original Recommendation in Audit Report:

The Department of Public Safety should work with the Governor's Office of Information Technology to further improve the security of the Colorado Crime Information Center (CCIC) and the concealed handgun permit database within CCIC by:

b. Promptly removing terminated users' access from all CCIC components and environments.

Agency's Response *(i.e., agree, partially agree, disagree)***: Agree**

Agency's Written Response in Audit Report:

One local administration account was identified by the audit staff which belonged to an employee that retired from the Department on May 31, 2010, that was found to be still active. This account has since been removed and the Department is now in compliance with State Cyber Security Policies.

Agency's Comments on Implementation Status of Recommendation:

This recommendation was implemented as of the release of the audit report.

Recommendation #: 1c

Agency Addressed: Department of Public Safety

Original Recommendation in Audit Report:

> The Department of Public Safety should work with the Governor's Office of Information Technology to further improve the security of the Colorado Crime Information Center (CCIC) and the concealed handgun permit database within CCIC by:
>
> c. Ensuring that administrative functions are performed with individual, non-shared accounts or through system utilities.

Agency's Response *(i.e., agree, partially agree, disagree)*: **Agree**

Agency's Written Response in Audit Report:

> Two system administrators were identified during the audit as using a shared account to perform administrative functions in CCIC systems. Individual accounts have been created for these users to uniquely identify individual use for administrative functions. CBI is now in compliance with State Cyber Security Policies.

Agency's Comments on Implementation Status of Recommendation:

> This recommendation was implemented as of the release of the audit report.

Recommendation #: 1d

Agency Addressed: Department of Public Safety

Recommendation Text in Audit Report:

>   The Department of Public Safety should work with the Governor's Office of Information Technology to further improve the security of the Colorado Crime Information Center (CCIC) and the concealed handgun permit database within CCIC by:

>   d.   Maintaining documentation related to the termination of CCIC users.

Agency's Response *(i.e., Agree, Partially Agree, or Disagree)*: **Agree**

Agency's Written Response in Audit Report:

>   Beginning November 3, 2010, every Operator Security Number (OSN) cancellation received over CCIC is logged in the CCIC administrative index using the date of receipt and the Master Record Index (MRI) number from the cancellation request. Using the MRI and date, CBI can identify the cancellation message in an archive file along with the exact date and time it was received by CBI. The user access was terminated for the users identified in the audit sample; however, CBI could not produce documentation as to the date and time the termination requested was received at CBI.

Agency's Current Comments on Implementation Status of Recommendation:

>   This recommendation was implemented as of the release of the audit report.

Recommendation #: 1e

Agency Addressed: Department of Public Safety

Original Recommendation in Audit Report:

>The Department of Public Safety should work with the Governor's Office of Information Technology to further improve the security of the Colorado Crime Information Center (CCIC) and the concealed handgun permit database within CCIC by:

>e.   Implementing the prior audit recommendation and complying with FBI security standards by performing IT security reviews of all local law enforcement user agencies every three years and providing security awareness training to all CCIC users according to FBI timelines.

Agency's Response *(i.e., agree, partially agree, disagree)*: **Agree**

Agency's Written Response in Audit Report:

>CBI implemented a vendor-hosted online security awareness training platform in July 2010 to deliver and track security awareness training. In September and October 2010 CBI provided information about the security awareness training system to all local agencies. In November 2010 CBI conducted a statewide webinar to instruct local law enforcement agencies on how to administer the training. A second webinar is planned for December 2010. CBI has added security awareness training to the mandatory recertification test for users with Operator Security Numbers (OSNs) as a prerequisite for renewing their access to CCIC.

>CBI is working to implement a vendor-hosted online IT security review process for local law enforcement user agencies to augment onsite security audits. Local law enforcement user agencies will be required to complete the online self-assessment that will then be reviewed by CBI staff. Based on the results of the self-assessments, CBI staff may conduct further onsite testing. The online IT security reviews will allow CBI to meet the FBI's three-year audit requirement. The online IT security review process is now operational.

CBI anticipates meeting the training requirement prior to CBI's next FBI audit which will take place in Calendar Year 2011. CBI provided an update to the FBI Criminal Justice Information Services (CJIS) Advisory Policy Board on the progress of security awareness training on October 27, 2010.

Agency's Comments on Implementation Status of Recommendation:

CBI implemented a vendor-hosted online security awareness training platform in July 2010, to deliver and track security awareness training. CBI has added security awareness training to the mandatory recertification test for users with Operator Security Numbers (OSNs) as a prerequisite for renewing their access to CCIC.

CBI has implemented a vendor-hosted online IT security review process for local law enforcement user agencies to augment onsite security audits. Local law enforcement user agencies complete online self-assessments that are reviewed by CBI staff. Based on the results of the self-assessments, CBI staff may conduct further onsite testing. The online IT security reviews will allow CBI to meet the FBI's three-year audit requirement. The online IT security review process is now operational. CBI anticipates meeting the training requirement prior to CBI's next FBI audit which will take place in calendar year 2011. To date CBI has completed 404 audits.

Recommendation #: 1f

Agency Addressed: Department of Public Safety

Original Recommendation in Audit Report:

> The Department of Public Safety should work with the Governor's Office of Information Technology to further improve the security of the Colorado Crime Information Center (CCIC) and the concealed handgun permit database within CCIC by:
>
> f.   Systematically hardening the CCIC system according to an approved standard and documenting the results.

Agency's Response *(i.e., agree, partially agree, disagree)***: Agree**

Agency's Written Response in Audit Report:

> A vulnerability assessment was performed by the Colorado Office of Cyber Security (OCS) on the CCIC system prior to the upgraded CCIC system implementation in May 2010. Security hardening was performed on the CCIC servers based on the findings of an OCS vulnerability assessment. CBI will collaborate with OIT to continue the process of identifying hardening standards and will document the process within the agency cyber security plan.

Agency's Comments on Implementation Status of Recommendation:

> As of January 1st 2011, the Governor's Office of Information Technology (OIT) officially adopted the Center for Internet Security (CIS) as their hardening standards. In February 2011 several configuration changes were made to reduce risk to the CCIC system. Those changes were as follows.
>
> 1.   Removed the ability to use weak ciphers in the secure shell (ssh) protocol.
>
> 2.   Removed WebDav service because it was not being used.
>
> 3.   Removed default tomcat webpages.

Recommendation #: 1g

Agency Addressed: Department of Public Safety

Recommendation Text in Audit Report:

>   The Department of Public Safety should work with the Governor's Office of Information Technology to further improve the security of the Colorado Crime Information Center (CCIC) and the concealed handgun permit database within CCIC by:

>   g. Reviewing user access rights to the concealed handgun permit database and taking steps to ensure that county sheriffs' offices are the only agencies entering information into the database. In addition, the Department should review records created by police departments and remove as appropriate.

Agency's Response *(i.e., Agree, Partially Agree, or Disagree)*: **Agree**

Agency's Written Response in Audit Report:

>   The CCIC message switch and associated systems are provided and maintained by the vendor, Computer Projects of Illinois (CPI). To change the message keys used to enter and maintain concealed handguns entries so that a user would be identified and validated as an employee of a sheriff's office would fall outside normal maintenance and would be an additional expense to the agency.

>   Although it would be possible to "set aside" the message keys on a separate part of our limited user security grid and restrict it to sheriff's office users, this would be a significant undertaking. CPI would need to identify and change the affected users which would also fall outside normal maintenance and would be an additional expense to the agency. If a technological solution is not possible, CBI would implement a manual process of reviewing user access rights and validating database entries on an annual basis. This work process change would place additional staff demands on CBI.

>   Looking to the future, CPI is testing changes to the user configuration tool to allow state administrators to define user access by user role. With an updated configuration tool which may be available within the next five years, it will be easier to fine-tune access for a diverse user base.

Meanwhile, the CBI Program Support Unit, working with and through the CCIC Board of Working Advisors, will address this matter as a training issue to ensure appropriate entry of records into the concealed handgun permit database. CBI will meet with police agency heads to discuss the deletion of identified records.

Agency's Current Comments on Implementation Status of Recommendation:

This recommendation is no longer applicable with the deletion of the Concealed Handgun Permit Database.

Recommendation #: 2a

Agency Addressed: Colorado Bureau of Investigation

Original Recommendation in Audit Report:

> If the General Assembly authorizes the continuation of the concealed handgun permit database beyond July 1, 2011, the Colorado Bureau of Investigation should improve the reliability of information in the database for determining the validity of a permit by working with sheriffs to:

> a.   Establish data integrity controls to help ensure that permit records are accurate.

Agency's Response *(i.e., agree, partially agree, disagree)***: Agree**

Agency's Written Response in Audit Report:

> If the General Assembly chooses to continue the database, CBI will work with sheriffs to (1) ensure that data entry is complete in all fields of the concealed handgun permit database with valid expiration dates for permits issued, (2) develop automated controls within the database to allow law enforcement to determine quickly the current status of a concealed handgun permit holder, and (3) improve the training of data input personnel to eliminate the incidence of duplicate records placed into the database. CBI believes that this can be accomplished during Calendar Year 2011.

Agency's Comments on Implementation Status of Recommendation:

> The General Assembly did not authorize the continuation of the concealed handgun database and the database has been deleted from CCIC. Recommendations 2a through 2d are no longer applicable.

Recommendation #: 2b

Agency Addressed: Colorado Bureau of Investigation

Original Recommendation in Audit Report:

>If the General Assembly authorizes the continuation of the concealed handgun permit database beyond July 1, 2011, the Colorado Bureau of Investigation should improve the reliability of information in the database for determining the validity of a permit by working with sheriffs to:

>b.   Implement uniform policies and procedures for entering, updating, and purging concealed handgun permit records.

Agency's Response *(i.e., agree, partially agree, disagree)***: Agree**

Agency's Written Response in Audit Report:

>If the General Assembly chooses to continue the database, CBI will work with sheriffs' offices to develop appropriate policies and procedures for entering, updating, and purging concealed handgun permit records.

Agency's Comments on Implementation Status of Recommendation:

>The General Assembly did not authorize the continuation of the concealed handgun database and the database has been deleted from CCIC. Recommendations 2a through 2d are no longer applicable.

Recommendation #: 2c

Agency Addressed: Colorado Bureau of Investigation

Recommendation Text in Audit Report:

If the General Assembly authorizes the continuation of the concealed handgun permit database beyond July 1, 2011, the Colorado Bureau of Investigation should improve the reliability of information in the database for determining the validity of a permit by working with sheriffs to:

c. Address the inaccurate records identified by the Office of the State Auditor to ensure that these records contain valid expiration dates and do not contain contradictory record classification and notes, and removing records as appropriate.

Agency's Response *(i.e., Agree, Partially Agree, or Disagree)*: **Agree**

Agency's Written Response in Audit Report:

CBI will work with sheriffs' offices to correct inaccurate records in the database identified by the Office of the State Auditor. CBI does not initiate original records so the records will be returned to the originating agencies for correction and validation.

Agency's Current Comments on Implementation Status of Recommendation:

The General Assembly did not authorize the continuation of the concealed handgun database and the database has been deleted from CCIC. Recommendations 2a through 2d are no longer applicable.

Recommendation #: 2d

Agency Addressed: Colorado Bureau of Investigation

Original Recommendation in Audit Report:

> If the General Assembly authorizes the continuation of the concealed handgun permit database beyond July 1, 2011, the Colorado Bureau of Investigation should improve the reliability of information in the database for determining the validity of a permit by working with sheriffs to:
>
> d. Consider reviewing the database annually for records with errors and inconsistencies and providing a listing of those records to sheriffs for their review and correction.

Agency's Response *(i.e., agree, partially agree, disagree)***: Agree**

Agency's Written Response in Audit Report:

> CBI will work with sheriffs' offices to establish an annual review of all concealed handgun permit records contained within the database. CBI does not initiate original records so the records will be returned to the originating agencies for validation. CBI believes validations could begin in December 2011. CBI may need to seek additional funding in order to meet this requirement.

Agency's Comments on Implementation Status of Recommendation:

> The General Assembly did not authorize the continuation of the concealed handgun database and the database has been deleted from CCIC. Recommendations 2a through 2d are no longer applicable.

Recommendation #: 3

Agency Addressed: Colorado Bureau of Investigation

Original Recommendation in Audit Report:

If the General Assembly does not authorize the continuation of the concealed handgun permit database beyond July 1, 2011, the Colorado Bureau of Investigation should ensure that data contained in the database, including all records and information contained therein, are deleted from the Colorado Crime Information Center (CCIC) system and destroyed by July 1, 2011, pursuant to statute [Section 18-12-206(3)(b)(I), C.R.S.], and that permit information is not entered into other parts of the CCIC system.

Agency's Response *(i.e., agree, partially agree, disagree)***: Agree**

Agency's Written Response in Audit Report:

If the General Assembly does not authorize the continuation of the database during the 2011 Legislative Session, CBI shall ensure that the concealed handgun permit database and information in the database is permanently deleted and destroyed by July 1, 2011. This will include removing the concealed handgun permit database from the Colorado Crime Information Center (CCIC) system so that law enforcement can no longer view or enter information contained in the database.

Agency's Comments on Implementation Status of Recommendation:

The General Assembly did not authorize the continuation of the concealed handgun database. The database was deleted from CCIC. The database has been destroyed. Concealed Handgun Permit information is not entered into any other CCIC application file.