April 10, 2009

SUSAN C. PLONKEY
VICE PRESIDENT, SALES

SUBJECT: Final Audit Report – Automated Flats Sorting Machine 100 Images: Security
of Sensitive Customer Data (Report Number DA-AR-09-008)

We initiated this U.S. Postal Service Office of Inspector General (OIG) audit (Project Number 09YG018PM000) based on an investigative referral that alleged the Automated Flats Sorting Machine (AFSM) 100 cameras were lifting images from Internal Revenue Service (IRS) mailings and displaying social security numbers (SSNs). This condition would increase the risk to U.S. Postal Service information security. Our objective was to determine whether the AFSM 100 cameras are revealing taxpayers' SSNs during the image lifting process. See Appendix A for additional information about this audit.

Conclusion

The OIG evaluated random samples of mailpiece images the AFSM 100 cameras captured. None of these images showed information beyond the envelopes and cover page. Since these random images were not IRS-specific, it confirmed to us that the concern was specific to the IRS. To test this theory, we simulated mail preparation and processed pseudo mailings the IRS provided. In all cases when contents shifted in envelope windows, SSNs located on the secondary page were visible and were captured by the AFSM 100 cameras.

The IRS has the obligation to ensure SSNs cannot be seen in mailings. The Postal Service's obligation is to ensure that SSNs inadvertently recorded by automated processing equipment remain confidential. Based on the safeguards the Postal Service has in place to protect electronic records, we concluded the Postal Service has fulfilled its Privacy Act obligation. See Appendix B for our detailed analysis of this issue.

Management Corrective Action

The OIG, in coordination with the Postal Service's Business Service Network (BSN), discussed the finding with IRS Media and Publications representatives on March 20, 2009. In response to our discussion draft report, BSN managers began working with the IRS on March 30, 2009, to correct the exposure of SSNs in its mailings. Thus, this report contains no recommendations.

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Miguel Castillo, Director, Engineering, or me at (703) 248-2100.

E-Signed by Darrell E. Benjamin, Jr
VERIFY authenticity with ApproveIt

Darrell E. Benjamin Jr.
Deputy Assistant Inspector General
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Attachments

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APPENDIX A: ADDITIONAL INFORMATION

BACKGROUND

The Postal Service processes flat mail[1] in two stages: mail preparation and automation processing. During mail preparation flat mailpieces are culled and stacked in a container to facilitate automation processing. Subsequently, automated feeders agitate flat mail the AFSM 100 is processing. When a mailpiece address is unreadable, an AFSM 100 built-in camera takes an image of the mailpiece and sends it to a remote encoding center, where a person reads it, types the correct address, and sends it back to the processing plant.

While the SSN was first introduced as a device for tracking contributions to the Social Security system, government entities and the private sector have expanded its use to track many other records. As early as the 1970s, concerns regarding increased use of SSNs by both government and private entities prompted studies and subsequent congressional action limiting government use of SSNs. When Congress passed the Privacy Act of 1974, it took the first statutory step toward establishing a federal policy limiting compulsory divulgence of SSNs. In its report accompanying the Privacy Act, the Senate Committee on Government Operations stated that the extensive use of the SSN as a universal identifier was "one of the most serious manifestations of privacy concerns in the nation." More recent enactments by Congress have provided for increased confidentiality of SSNs in public records.

OBJECTIVE, SCOPE, AND METHODOLOGY

Our audit objective was to determine whether the AFSM 100 cameras are revealing taxpayers' SSNs during the image lifting process. If true, the Postal Service is at risk of not complying with laws designed to protect SSNs. Illustration 1 displays the image OIG Special Agents referred to the Office of Audit.

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[1] Flats are mailpieces that exceed one of the maximum dimensions of letter-size mail. Large envelopes, newspapers, catalogs, circulars, and magazines are examples of flats.

Illustration 1 – Image Referred

IRS mailing that generated the audit referral. It should be noted the exposure is limited to the envelope window. Taxpayer information has been sanitized in this image.
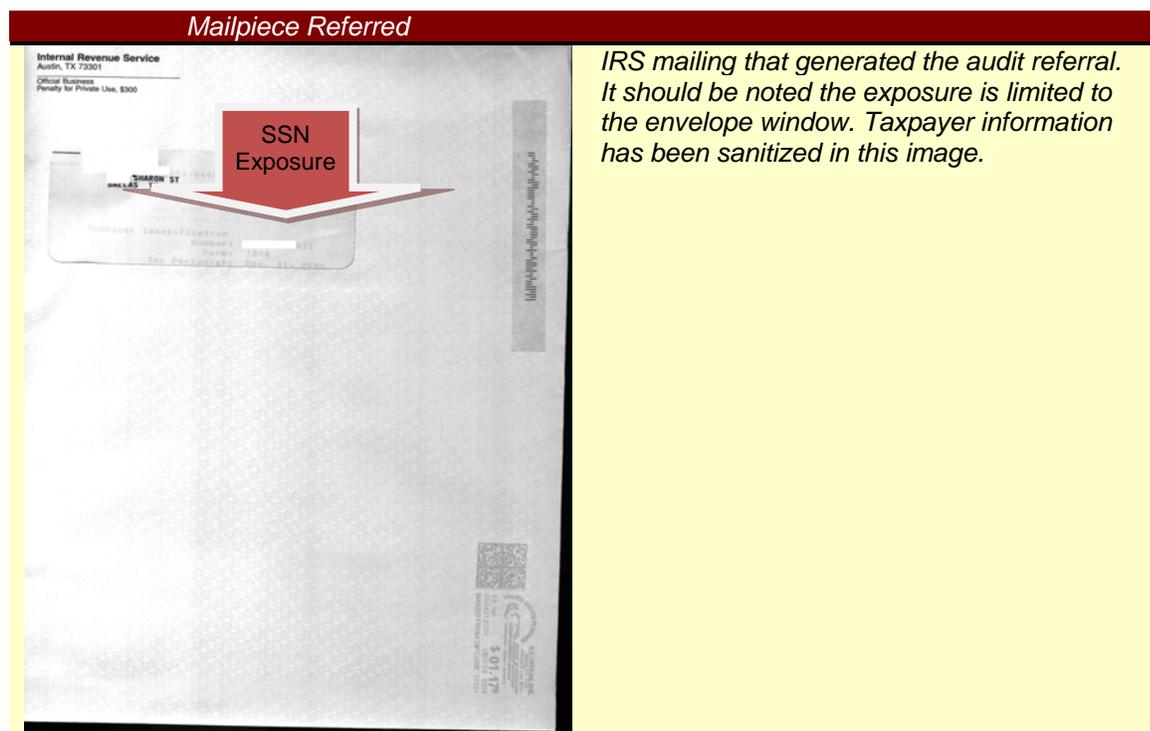
To accomplish our objective, we conducted interviews with Postal Service management and IRS officials. We worked with management to collect and review random images from AFSM 100 machines, in order to determine whether the AFSM 100 camera was reading information beyond the cover page. Additionally, we collected IRS mailing samples for testing on AFSM 100 machines in a production environment at two separate processing facilities. The purpose of this test was to determine whether the allegation was, in fact, was mailer-specific and confined to the envelope window area.

We conducted this performance audit from February through April 2009 in accordance with generally accepted government auditing standards and included such tests of internal controls as we considered necessary under the circumstances. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. We discussed our observations and conclusions with the Postal Service BSN manager and IRS Media and Publications representatives on March 20, 2009, and included their comments where appropriate.

PRIOR AUDIT COVERAGE

We did not identify any prior OIG audits or reviews related to the objective of this audit.

APPENDIX B: DETAILED ANALYSIS

SSN Exposure

Our observation and review of 100 images taken at random from AFSM 100 machines located at the Merrifield Processing and Distribution Center (P&DC) did not indicate that machine cameras were capturing information beyond the face of flat envelopes. Because the random images we reviewed were not mailings the IRS presented, we concluded that the AFSM 100 camera was not capturing sensitive information on a wide scale, and that the imaged mailpiece in question, displayed in Illustration 1, was a mailer-specific condition.

Therefore, in conjunction with Postal Service Engineering, we requested and tested pseudo mailpieces from the IRS[2] to validate whether the AFSM 100 machine could read their mailings beyond the cover page. SSNs were exposed on all five sampled mailpieces processed at the Merrifield P&DC and on three of the five mailpieces processed at the Southern Maryland P&DC. SSNs were transparent in the envelope window area only.

Illustration 2 shows the before and after effect of our test of IRS mailpieces. The results corroborated that IRS mailpieces of similar design displayed sensitive information from the cover page after the contents had shifted during mail processing, and therefore the SSN exposure was due to the mailpiece design.

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[2] All IRS-tested mailpieces contained the same print quality, density, print location, and contrast ratio as the referred mailpiece.

Illustration 2 – Before and After Images of Processed IRS Mailpieces

IRS Mailpiece Before Handling and Processing	IRS Mailpiece After Processing
The image above represents a sample IRS mailing. It shows the content of the window area prior to handling and processing on the AFSM 100. Note that the barcode is visible and the pseudo SSN is not visible in the window area of the envelope.	The image above shows the content in the window area after simulated handling and processing on the AFSM 100. Note that the pseudo SSN is now visible in the window area of the envelope. It should be noted that in some cases the SSN was also visible to the naked eye before processing on the AFSM 100.

Postal Service Obligation for Mailpiece Information Security

Federal and state governments have taken steps to limit compulsory divulgence of SSNs. Congress passed the Privacy Act of 1974 and on November 6, 2000, the President signed into law the "Social Security Number Confidentiality Act of 2000" (Confidentiality Act of 2000), codified at 31 U.S.C. § 3327(b). In addition, a number of states have enacted statutes that restrict the use or display of SSNs in various contexts. For example, the state of Michigan enacted the Social Security Number Privacy Act, Act 454, of 2004. This act prohibited the public display of all or more than four sequential digits of the SSN.

We reviewed the Privacy Act of 1974 and the Confidentiality Act of 2000 and other related laws to determine the obligation of the Postal Service to maintain the confidentiality of SSNs for mailings. We concluded that the obligation to ensure SSN confidentiality ultimately rests with the agency that places the item into the mail stream. However, the Postal Service has an obligation to ensure that any personally identifiable information, including SSNs, that is inadvertently recorded by automated processing equipment remains confidential.

The database housing images would be considered a "system of records" for the purposes of the Privacy Act. We found the process used by the Postal Service to store these images to be in compliance with Postal Service policy.[3] Therefore, the Postal Service has fulfilled its Privacy Act obligation to safeguard any inadvertent collection of personally identifiable information like SSNs.

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[3] Handbook AS-353, *Guide to Privacy, the Freedom of Information Act, and Records Management,* September 2005. Section 800 of the Appendix states that confidential records, such as SSNs, are to be stored in areas where access is limited to authorized personnel.