Deviation Request Form (DRF)

Directions: The Initiator will complete Sections A through C. Additional continuation pages can be included if necessary.

Initiator	FSM J. Hickman	**Date**	04/20/2018

A. Requested deviation applies to (Technical Procedure – include specific section):

Technical Procedure for Audio Duplication and Conversion - Section 5.11

B. Requested deviation:

Add the following language to Section 5.11: *The created audio media will be considered an item generated in the Laboratory, and shall be documented as such in the Laboratory Report.*

C. Necessity for the deviation:

At the onset of an audio examination, evidence is duplicated prior to any analysis, thereby preserving the original. The analysis is then conducted on the duplicate item. These duplicates are considered to be derivative of the original item and should be documented as such in the Laboratory Report. The change in the procedure allow for the documentation of the duplicate items generated by examiners in the Section as separate items generated in the Laboratory in a Laboratory Report.

D. Technical review and Authorization (to be completed by the Quality Manager and/or Technical Leader)
Comments(to include merits and impacts):

Adjusting the procedure in this fashion makes laboratory reports for audio examinations consistent with reports issued in computer forensic examinations, and allows for items generated in the Laboratory to be clearly defined within the report.

Approved	☑	Yes	☐	No	Duration	Until Next Update
Signature	Jim Trevillian Digitally signed by Jim Trevillian Date: 2018.04.23 12:14:45 -04'00'				Date	4/23/2018

E. Quality Assurance Authorization (to be completed by the Quality Manager, Forensic Scientist Manager or designee)

Acceptable within general QA guidelines and good laboratory practice?	☑	Yes	☐	No
Significant negative impact to Crime Laboratory Quality System?	☐	Yes	☑	No

Restrictions/limitations:

☑	Authorized	☐	Rejected	Signature	Joshua Hickman Digitally signed by Joshua Hickman Date: 2018.04.23 13:43:36 -04'00'	Date	04/23/2018

Form approved for use by: Timothy G. Suggs Digitally signed by Timothy G. Suggs DN: cn=Timothy G. Suggs, o=North Carolina State Crime Laboratory, ou=Quality Manager, email=tsuggs@ncdoj.gov, c=US Date: 2014.12.19 09:01:52 -05'00'

Technical Procedure for Audio Duplication and Conversion

1.0 Purpose - The purpose of this procedure is to duplicate and/or convert audio evidence as requested by the submitting agency or for the purpose of creating a digital copy of original audio to be used for clarification of audio.

2.0 Scope - This procedure describes the steps to be taken by personnel of the State Crime Laboratory for duplicating and/or converting audio.

3.0 Definitions

- **Write Protection** – A method by which media content is shielded from modification using hardware or software tools.

4.0 Equipment, Materials and Reagents

- Playback device
- Recording device
- Permanent marker

5.0 Procedure

5.1 If the original media is a file-based digital media (such as CD or flash memory), the following steps shall be taken.

Analysis of evidence shall not be performed on workstations which are connected to a network that allows access to the internet (including the DOJ internal network).

If the original evidence media is a standard audio CD, duplicate the CD using a standard CD duplication program. After the CD has been duplicated, skip to **5.9**.

5.1.1 Prior to duplicating any audio files, complete the equipment verification process outlined in the Technical Procedure for Audio Performance Verification.

5.1.2 If the original evidence media contains audio data files that can be converted to standard CD audio tracks, convert these files and create a standard audio CD. After the CD has been created, skip to **5.9**.

5.1.3 If the original evidence media contains audio data files that cannot be converted to standard CD audio tracks, continue with the steps listed below in order to duplicate/convert the audio.

5.2 Connect the playback device to the recording device. This connection shall be made with the highest quality connection available to both devices.

5.3 Determine whether the request is to duplicate/convert the entire audio or a specific area of interest.

5.3.1 Entire audio: Queue the audio to the beginning.

5.3.2 Specific area of interest: Locate the area of interest. If the area of interest cannot be located, contact the submitting agency for more information.

5.4 Using a playback device, play the original audio media and adjust the input levels of the connected recording device.

5.5 Once the input levels have been adjusted, stop the playback of the original audio. Rewind or reset the original audio media to the beginning of the portion to be duplicated or converted.

5.6 Begin recording on the connected recording device, then begin playback of the original audio media.

5.7 The audio being output from the playback device shall be recorded to the requested type of media. If no media type is specified, an uncompressed media type (such as CD) will be chosen.

5.8 Verify that the duplicated or converted audio accurately represents the original audio.

5.9 The audio media created shall be write-protected, if possible.

5.10 Label the audio media created using permanent marker in accordance with the Laboratory Procedure for Evidence Management.

5.11 A Laboratory Report shall be created in FA.

5.12 Patch panels and other related hardware may be used to connect the playback and recording equipment (provided they are a part of the performance verification process).

5.13 Standards and Controls – Standard 1 kHz test tone on the media type submitted as evidence.

5.14 Calibrations - The hardware and software used in casework shall be verified as provided in the Technical Procedure for Audio Performance Verification before each case to ensure proper functioning.

5.15 Maintenance – N/A

5.16 Sampling – N/A

5.17 Calculations – N/A

5.18 Uncertainty of Measurement – N/A

6.0 Limitations - Failure to limit the playback of the evidence media could result in degradation of the evidence.

7.0 Safety – N/A

8.0 References

- Technical Procedure for Audio Performance Verification
- Laboratory Procedure for Evidence Management
- Digital Audio Corporation – Digital Audio Processing Training Manual

9.0 Records – N/A

10.0 Attachments – N/A

Revision History		
Effective Date	Version Number	Reason
09/17/2012	1	Original Document
12/07/2012	2	5.1 - Removed last sentence to ensure specialized equipment does not fall under the same restrictions as forensic imaging systems
10/31/2013	3	Added issuing authority to header
09/22/2017	4	Document – adjusted header to reflect Digital Evidence Section 3.0 – Adjusted definition of "Write Protection." 5.1 – moved old 5.3 to 5.1.1, and readjusted the numbering for the remaining sub sections. 5.12 – Removed subsections 5.12.1 and 5.12.2. 5.1.1, 5.1.14, and 8.0 – updated procedure reference