

SSEER Chain of Custody Policies and Procedures

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June 6, 2017

Definitions and Context

Custody – Physical possession of a sample, photograph, or electronic document. While in your possession, an article must be kept safe from tampering.

Chain of Custody – A record of the transfer of custody from one person to another.

Context – Data, samples, and other evidentiary information gathered in an emergency event may be subject to careful scrutiny in settlement proceedings, especially when the cost of the response and restoration is high. One common legal challenge of evidence is finding a break in the chain of custody where a sample could be contaminated or altered. Therefore, it is imperative that a record be kept of who has possession of evidence and when that possession changes.

Items to be Covered by Chain of Custody Guidelines – Any sample or record that will be used to assess the nature, extent, and impact of an emergency must be kept under Chain of Custody. Examples include samples of water, chemical, soil, and air; biological specimens; digital and/or hardcopy photographs; videos; and electronic files of data collected by electronic devices (e.g., water quality sensors, GPS coordinates).

Chain of Custody and SSEER – Information collected by URI personnel will ultimately be conveyed to the DEM Emergency Response Division. While the samples or digital documents are in the possession of SSEER personnel, Chain of Custody guidelines must be exercised. If Chain of Custody records are not meticulously kept, the information collected by SSEER scientists may have no value.

SSEER Chain of Custody Procedures: Three Easy Steps

There are three steps in developing Chain of Custody: (1) recording information when samples are taken in the field or lab, (2) completing a Sample Description form, and (3) completing a Chain of Custody form.

Step 1. Critical Information to Record When Samples or Evidentiary Data Are Collected in the Field

Given the varied kinds of evidence that might be collected in an emergency event, we have strived to keep the procedures as simple and flexible as possible. The

following are guidelines to recording critical information in the field when samples are collected.

1. It is imperative that the following information is noted when samples are collected:
 - a. The name(s) of the person or persons collecting the samples
 - b. Date
 - c. Time
 - d. Location as a geographic coordinate such as decimal degrees or degrees/minutes/seconds, a mark on an aerial photo or map, an address, or a verbal description
 - e. A unique identifying number for each individual sample (when samples are not pooled). We recommend the initials of the person collecting the data followed by a sequential number (e.g., PVA-001)
 - f. A description of what the sample is
2. Appropriate containers must be used for the materials collected. The SSEER Chain of Custody Officer can assist with this if necessary.
3. A means to label individual specimens or samples. This might be directly marking containers with a Sharpie pen, specimen tags affixed to samples, or labels applied to vials or bottles.
4. Digital data should be identified by ID values in the database (e.g., an ID column in a spreadsheet file, or filenames (e.g., digital photos).
5. If possible, this information should be recorded with waterproof ink (e.g., a Sharpie pen) on waterproof paper, for example, in a Rite in the Rain log book.

Step 2. Sample Description Form

The Sample Description Form (Appendix A) contains all the information for samples that you recorded in the field. This should be completed as soon as possible after the samples or specimens are secured. On this form you record what you collected, when, where, and how. The Sample Description Form will accompany the samples as they are transferred from one person to another. When possible, make a copy of the Sample Description Form for your own records. If you are taking samples for chemical analysis and you are familiar with the DEM Chain of Custody forms, you may use those. Copies will be made available from the SSEER Chain of Custody Officer.

Step 3. Recording Transfer of Custody

Every time possession of evidence changes hands, a record must be made of who is passing the information to whom. This is done on the Custody Transfer Form (Appendix B). This form must be completed every time a sample or digital document changes hands from one person to another. When possible, make and keep a copy of the Custody Transfer Form that documents your releasing of samples to another person. If you are taking samples for chemical analysis and you are familiar with the DEM Chain of Custody forms, you may use those. Copies will be made available from the SSEER Chain of Custody Officer.

Overall Guidelines

1. SSEER will have a supply of Sample Description and Custody Transfer Forms and these will be made available to you. They can also be downloaded from <https://ci.uri.edu/ventures/sseer/>
2. Fill out forms with waterproof pen or permanent marker. Do not use pencil, or biro (erasable) ink. SSEER will have a supply of Sharpie pens and forms available in both the GSO (room 124) and Kingston (room 101) CI buildings.
3. Fill in blanks with "N/A" if data are not applicable or not available. Avoid leaving blank values on data forms.
4. Do not erase or black out erroneous entries on the field data forms. Errors should be corrected by crossing out the entry with a single line and signing and dating the strike-through.
5. Original Custody Transfer and Sample Description forms should always stay with the samples. If possible, make a copy of the Custody Transfer Form for your files before sending it along with the samples.
6. When SSEER is activated, a Chain of Custody officer will be designated. (S)he will provide guidance, forms, and ensure that Chain of Custody procedures are properly followed.
7. Chain of Custody Go Kits will be available for SSEER personnel. These kits contain notebooks, labels, forms, Sharpie pens, USB thumb drive, and instructions on keeping Chain of Custody records. They are available from the SSEER Chain of Custody officer
8. A secure Chain of Custody storage facility will be identified for an event when SSEER resources are used. The site will be secure with controlled access. The Chain of Custody officer will provide access to the storage locker.
9. All samples must be labeled and uniquely numbered. Sample labels will be provided by the Chain of Custody officer. The numbering system should be the three initials of the original person collecting the samples followed by a dash and a three-digit number (e.g., PVA-073).
10. Chain of Custody records must be maintained for digital records such as photographs, video recordings, data files, GPS coordinates, GIS data, spreadsheets, etc. USB thumb drives can be provided for the conveyance of digital documents.
11. If you are unsure of how to label, store, or convey a sample or data record, consult the Chain of Custody officer.
12. As the person obtaining the sample always think about what you are trying to prove prior to taking a sample.
13. Ensure that you have the proper sample containers and equipment for the type of sampling being conducted (i.e. vials, jars, cooler, preservatives, ice, etc.).
14. If possible take photographs of the sample container in the area the sample was obtained. For example, if you take a sample from a drum, photograph the sample jar on top of the drum.

15. Be prepared to take three or more samples. Split samples may be requested; one for the Responsible Party (RP), DEM, hold and the lab. Samples for other agencies may have to be stored.
16. Ensure that you follow Federal, State or your own sampling procedures.
17. The sample must be defensible in court so make sure the samples are in your possession or locked in your custody and secured.

Appendix A
SSEER Sample Description Form

Name _____

Date _____ Time _____

Location _____

Sample Description (include sample ID numbers, contents, file format)

Appendix B
SSEER Custody Transfer Form
Please keep the original of this form with the samples

Brief Description of Evidence Transferred. Include Sample IDs, filenames, and a brief description of contents.

Evidence Relinquished By:

Name (printed)

Signature

Evidence Received By:

Name (printed)

Signature

Date

Time

Evidence Relinquished By:

Name (printed)

Signature

Evidence Received By:

Name (printed)

Signature

Date

Time

SSEER Chain Of Custody Examples in Vignette

Chemical Samples



A commercial fishing vessel loses power entering the Port of Galilee and becomes grounded on the jetty protecting the Harbor of Refuge. The vessel leaked gas and oil. SSEER engages Mary Thompson, an organic chemistry tech at the School of Oceanography to collect water samples throughout the Harbor of Refuge to determine concentrations of fuel and oil in the water column. DEM Environmental Police Marine Unit takes her to the Harbor of Refuge in their patrol boat. Mary collects 100 ml water samples in sterile containers on the surface and bottom in 5 locations. On each sample bottle is the sample number written in Sharpie pen as MT-001-S, MT-001-B. The "S" and "B" distinguish surface and bottom samples. A GPS coordinate is logged at each sample location using a Garmin eTrex. Mary takes the samples back to the laboratory on campus for a mass spectrometer characterization of the organic chemicals in each sample. She emails the results to Jim Ball, the DEM emergency response coordinator with a clear Subject Line indicating the sample type (e.g., Harbor of Refuge_ Water Samples_17June2017). After completing the assay and sending her report to Jim Ball, Mary completes the Sample Description Form and a Transfer of Custody Form. Mary carefully records decimal degree coordinate for each sample location waypoint on her Garmin and includes this information on the Sample Description Form. Additionally, she copies the waypoint .gpx file off the Garmin and stores it on a USB thumb drive and includes this with the samples. Mary prints out the copy of her report to DEM. She takes the samples, thumb drive, and documents to the Coastal Institute where Amber Neville takes custody of the 10 containers, USB drive, forms and report. A copy of all the forms is made for Mary's files. Amber stores the material in a locked room. The following day, a DEM Environmental Police Officer comes to the Coastal Institute to retrieve the evidence so it can be taken to DEM for further analysis. Amber and the Officer complete a Transfer of Custody Form. Amber makes copies of all the documents for the CI files and the DEM officer takes the samples and forms to Providence.

Wildlife Mortality



A heating oil truck turns over on Bridgetown Road near the bridge on the Narrow River. 2,000 gallons of heating oil flow into the River. It is an outgoing tide. Dr. Peter Paton is engaged by SSEER and DEM to survey the Narrow River shoreline for dead shorebirds that may have succumbed to exposure to the oil. Dr. Paton and his student Natalie Smith are met at Middlebridge by a DEM Environmental Police Officer in a small Boston

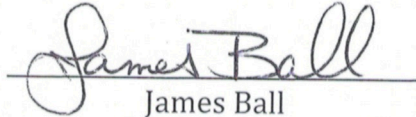
Whaler. At every location where a dead animal is found, Peter and Natalie photograph the carcass, retrieve the specimen, and put it in a sealed plastic bag. A specimen number is assigned (PP-001), the number is written on a specimen label with a Xtra-Fine Sharpie pen and the tag is tied to the foot of the bird. A GPS coordinate is taken at the site. In the Rite in the Rain field notebook, the species of the bird, specimen number, photo number, and GPS coordinates are recorded. Over the course of the survey, 12 specimens of 5 species are found. Peter and Natalie take the specimens back to their lab on campus and prepare a report for Jim Ball, the DEM emergency response coordinator. The specimens are kept in their original plastic bags and frozen. A Sample Description Form is completed. Peter and Natalie include a list of the species found, their specimen ID numbers, and locations. Natalie, A GIS expert, converts the Garmin.gpx file to an ArcGIS shapefile and codes each record with the specimen ID and species name. The following day, Jay Osenkowski, the Chief of the DEM Wildlife Division comes to Dr. Paton's lab to retrieve the specimens, the thumb drive with the shape file of locations and digital photographs, the report of the specimens found and the SSEER Chain of Custody Forms. Peter and Jay sign the Transfer of Custody form, Peter makes a copy for himself and Jay takes the material to the DEM facility in the Great Swamp.

Chain of Custody Protocol Approval Page

Adopted 6 June 2017



Judith Swift
Director
URI Coastal Institute



James Ball
Chief
DEM Office of Emergency Response

6/21/17

Date

6/13/17

Date

SSEER Chain of Custody (CoC) Go Kit

CoC go kits can be available to SSEER personnel in an event.

Each kit would contain:

- Everything in a bright colored, sealed, plastic portfolio (something like <http://tinyurl.com/knd3ntg>)
- 5 Sample Description Forms on rainproof paper
- 5 Transfer of Custody Forms on rainproof paper
- One fine, one extra-fine Sharpie pens
- 25 pre-printed (SSEER: DEM/URI CI) Avery address labels (~1"x2.6")
- 25 specimen tags with strings
- One empty thumb drive
- One printed set of instructions
- All-weather Rite in the Rain data log book
- DEM Sample documentation and chain of custody forms