COVERSHEET
STANDARD OPERATING PROCEDURE

OPERATION TITLE: **CHAIN OF CUSTODY PROTOCOL**

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Standard Operating Procedure: **RWM-DR-012**
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Five Year Review No Changes Needed:

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1.0 PURPOSE

The purpose of this document is to describe the Maine Department of Environmental Protection, Bureau of Remediation and Waste Management, Division of Remediation's (MEDEP/DR) procedure for sample chain of custody.

2.0 APPLICABILITY

MEDEP/DR is responsible for the investigation and remediation of hazardous substance, petroleum, and landfill sites throughout Maine. Investigation of contamination involves the collection of samples. Assuring that proper chain of custody protocol is followed is paramount to assuring the integrity of the samples, and the data generated by the analysis of those samples. This procedure describes each step to be followed for chain of custody documentation from the collection of the samples until they are turned over to the laboratory.

3.0 RESPONSIBILITIES

All MEDEP/DR staff must follow this procedure when collecting samples. All Managers and Supervisors are responsible for ensuring that their staff understand this procedure and strictly adhere to it for all sampling events.

4.0 DEFINITIONS

- Chain of Custody Form – A document detailing who is legally responsible for samples at any point in time from collection until the sample is received by the laboratory.
- Custody--A sample is "in custody" when: 1) the sample is in the sampler's possession, or 2) the sample was in the sampler's possession and then secured by the sampler to prevent tampering, or 3) the sample is placed in a designated secure area.
- Secure Area—An area in which entry is limited by keyed lock to a designated population.

5.0 INTRODUCTION

The MEDEP/DR uses standard operating procedures(SOP) as guidance in performing many tasks. This SOP establishes the proper methods for implementation of sample chain of custody documentation and procedure, and should insure consistency among MEDEP/DR staff. Proper sample chain of custody procedures are essential to collecting valid information which may be used in any legal proceedings. Additionally, samples must be stored properly until delivery to the laboratory to assure proper preservation of the sample, and to avoid introducing contamination from ambient conditions. Transportation to the laboratory should be arranged as quickly as possible to avoid exceedences of holding times for analysis.

Failure to maintain possession in the ways outlined in this SOP would constitute a break in sample custody and would likely discredit the sample(s) as use of evidence in court

proceedings. The sampler must assume that all samples collected will some day be used as evidence in court and treat the task of sample custody accordingly.

5.0 GUIDELINES/PROCEDURES

Sample custody begins immediately after a sample is collected. The sampler who collected the sample is responsible for the preservation and integrity of the sample(s) until that responsibility is transferred to someone else, and documented with the chain of custody form. This chain of custody form then travels with the sample(s), and is used to document any other transfers of custody.

5.1 CHAIN OF CUSTODY

The chain of custody (COC) form will document the information identifying the sample and a record of the relinquishing and receiving individuals. All samples from diffent locations must be given separate identifiers. Sample identifier, analysis requested, date and time, type and size of container, and any added preservative must be indicated on the COC for each sample. Date, time, and name written legibly, with signature, must be included in all entries outlining a change in the position of samples. Samples which may have high levels of contamination or may be hazardous to health should be indicated as such in the comments section of the COC. The COC should also indicate who, with contact information, will receive the completed data package.

MEDEP/DR personnel will use the COC provided by the laboratory conducting the analysis of the samples, making sure to fill it out completely and accurately. Once received by the laboratory, the laboratory will use a separate interal COC for documenting access to the sample during analysis.

5.2 OVERNIGHT STORAGE

Whenever possible, all samples will be taken to the laboratory performing the analyses on the same day the samples are collected, or given to courier service to transport the samples to the laboratory. If it is impossible to check in samples at the laboratory the same day, the samples should be placed in a secure area, following appropriate protocol for sample preservation (such as cooling to 4°C). There is a sample refrigerator in the locked clean room in the MEDEP/Technical Services (MEDEP/TS) available for overnight storage of samples.

For overnight trips or other times when it is not possible to check the samples into the laboratory or secure them at the MEDEP/TS Warehouse, the samples should be stored in a secure area (i.e. a locked motel room, locked truck, locked personal residence), again following appropriate sample preservation. During the winter months the sampler must make sure the samples are kept from freezing while being stored. Samples should not be stored in an area that has ambient conditions that would cross contaminate the samples, such as a garage with large amounts of gasoline storage.

If samples are not checked into the laboratory the same day as collected, the storage location and means of providing security shall be documented in the Sampling Event Trip Report (SETR) (See Standard Operating Procedure DR#013, Field Documentation).

5.3 USE OF COURIER SERVICES

If samples are given to a common currier, such as United Parcel Service, or FedEx, the last person who has custody of the samples will sign off on the COC, and state that the samples will be given to a common currier on the COC. The COC is then placed in the shipping container with the samples, and the shipping container sealed with a tamper proof custody seal, and given to the courier. The COC samples while in the couriers passion is the shipping record used by the courier. All samples should be shipped for next day delivery; if shipping samples on a Friday, make sure the laboratory is staffed for Saturday delivery.

The laboratory receiving the samples must check the integrity of the shipping container seal upon receipt. If the seal is broken, the laboratory staff receiving the container must indicate the broken seal on the COC with the samples.

5.4 SAMPLE CONTAINER TAMPER PROOF SEALS

Depending on the data quality objectives (DQOs), it may be necessary to place tamper proof tape on the actual jar at the time of collection as an extra step in assuring the integrity of the sample. This may be required for projects in which the data will be used for criminal enforcement cases. The project SAP will outline the need for individual sample protection, or any other special custody requirements for meeting project specific DQOs.

5.5 DISPOSITION OF COMPLETED CHAIN OF CUSTODY

Upon drop off of the samples at the laboratory, the laboratory should retain the original copy of the COC, and provide a copy to the sample transporter. If using common courier for transport, the laboratory should send a copy of the COC after receipt of the samples. A copy of the COC should be included with the trip report, as outlined in MEDEP/DR SOP RWM-DR-013 – Documentation of Field Activities, and Development of a Trip Report.

6.0 DOCUMENTATION

This sampler must record all information pertaining to the sample in his/her field notebook (following SOP RWM-DR-013), and make sure that all the pertinent information is accurately transferred to the COC.