HUD Office of Healthy Homes and Lead Hazard Control

VACUUM DUST SAMPLE COLLECTION PROTOCOL FOR ALLERGENS

For use by:

HUD's Healthy Homes Initiative Grantees

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(Version 1.0)

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HUD Healthy Home Initiative Grant Program

Vacuum Dust Sample Collection Protocol for Allergens

1.0 Background

This protocol is intended for use by HUD's Healthy Homes Initiative (HHI) grantees for collecting household dust samples for allergen analyses. Unlike traditional field sampling protocols, this protocol has flexibility built into it with the understanding that different grantees may have different goals and/or resource limitations that require a customized protocol to better suit their needs. As a result, some sections of this protocol describe a specific procedure to be followed whereas other sections provide different guidance options from which the grantees can select.

The protocol options outlined below are based on a number of large-scale studies that have used vacuum sampling to assess exposure to allergens. The remainder of this document is organized according to the various protocol sections, and all recommendations in this sampling protocol are supported by evidence from published literature to help grantees tailor the protocol to best fit their program objectives and resources. The companion HUD document entitled "Background and Justification for a Vacuum Sampling Protocol for Allergens in Household Dust" discusses the basis for these recommendations in more detail. The HUD Healthy Homes Initiative Background Paper on Asthma also provides related information.

The following sections outline the specific activities related to the collection, handling, and analysis of allergen dust samples collected from household units enrolled in HHI grant programs. This protocol is adapted from sampling methods and techniques for allergen dust sampling used in the National Survey of Lead and Allergens in Housing (NSLAH) and the Inner-City Asthma Study (ICAS).

2.0 Personnel Training

Sampling technicians should undergo a formal training program prior to beginning home visitations and allergen dust sampling. Grantees should document the names of those taking this training and where and when the training took place. Each grantee should devise a program-specific training program to cover the following areas:

- Overview of protocol and purpose
- Code of conduct in homes
- Orientation to data collection forms and appropriate completion
- Orientation to sampling devices to be used
- Handling of sampling materials
- Handling and transport of collected samples (valid and invalid samples)
- Troubleshooting of likely encountered problems

Sampling technicians must satisfactorily display proficiencies in the areas described above prior to being sent to the field. Before beginning the collection of the official samples for the program, technicians should practice the field-sampling protocol in several dry runs to become comfortable with it. In addition, a handbook should be created by the grantee outlining all of the information necessary to conduct successful field sampling of each housing unit. Copies of this handbook should be given to each sampling technician to use as a reference when needed.

3.0 Vacuum Sampling Materials and Supplies

Prior to visiting a housing unit, each sampling technician should be supplied with the following materials and supplies needed to conduct dust sampling:

1. Hand-held electric-powered portable vacuum cleaner with optional wand extension (no battery operated or rechargeable models)

2. Dust collection device (e.g., filter, sleeve, thimble, etc.)

3. Supply of crevice tools for the chosen vacuum
   A separate crevice tool should be supplied for each individual sample to be collected in a sampled housing unit, along with a crevice tool bag in which to place all used crevice tools for return to the office for cleaning and reuse.

4. Vacuum bags (extra)

5. Extension cord (25 feet) with 2-prong adapter

6. Box of disposable wipes for cleaning hands and sampling tools

7. Non-sterilized, non-powdered disposable gloves

8. Reclosable storage bags, such as zip-lock bags

9. Surgical booties

10. Timer or stopwatch

11. Temperature/relative humidity gauge

12. Allergen dust sample logs

13. Sample labels

14. Permanent marker

15. Masking tape

16. Measuring tape

17. Template (optional)
    Folding frame to create a 1 square meter template to measure sampling area

18. Cooler with cold packs to keep samples refrigerated during transport
    Dry cold packs should be used. Ice packs may generate moisture and leak, ruining the samples.

19. Trash bags

4.0 Step-by-Step Sampling Procedures

The steps for taking dust samples within a room are as follows.

1. Upon entering the room to be sampled, establish an area for sampling on the designated components using either a template or measuring tape and masking tape to mark off the chosen area. Avoid disturbing or walking in area to be sampled.

2. Plug vacuum into a dedicated outlet and assure that the cord length will be long enough to reach the area to be sampled. Use an extension cord if necessary. Do not plug the vacuum into a circuit believed to be supplying electricity to an air conditioner or water heater. This will avoid overloading and tripping of the breaker or blowing of the fuse. If something must be unplugged in order to plug in the vacuum cleaner, try not to unplug electric clocks, computers that are in use, etc., and be sure to plug items back in after vacuuming is completed.

3. Make sure that the vacuum bag has been changed within the last 3 months. If not, replace it with one of the extra vacuum bags provided.

4. Put on disposable latex gloves and surgical booties. Handling of sampling storage bags should occur only when wearing latex gloves.

5. Clean the inside and outside of the end of the vacuum's wand extension (if used) or hose with a disposable wipe before sampling in a new location (if using a wet wipe, allow wand/hose to dry before using).

6. Insert the crevice tool and dust collection device on the end of the wand extension or hose as per device supplier's instructions. Use of the wand extension is optional depending on the type of sample being collected and the preference of the sampling technician. Use a new crevice tool and dust collection device at each sampling site, unless a bulk sample is being collected.

7. With the hose in a vertical position and the crevice tool pointed upwards, turn the vacuum on and check that the crevice tool is tightly fitted.

8. Begin vacuuming the specific sampling area established in the room. **See Section 5, subsections A-F** for specific details on sampling from selected components in designated rooms.

9. While vacuuming, angle the crevice tool at 45 degrees so that the opening is in full contact with the surface to be vacuumed. Move the crevice tool across the sample area to cover the entire area and then repeat the sampling in a direction perpendicular (90 degrees) to the original direction.

10. Once sampling is completed, hold crevice tool pointed upwards and turn the vacuum off. Carefully remove the crevice tool and then the dust collection device from the vacuum and crevice tool to avoid the loss of any sample material and place it into a new reclosable storage bag.

11. Place the used crevice tool in the crevice tool bag for return to office for cleaning.

12. Label the sample bag with appropriate code numbers (e.g., location of sample, date of sample, technician code number, and subject code number).

13. Place sealed storage bag into cooler. Do not use wet ice in the cooler because it will compromise the sample. Instead, use blue ice packs or standard refrigeration to keep samples cool.

14. Complete required information on the dust sample log for each sample.

15. Dispose of any trash generated in the supplied trash bags. No trash generated by the sampling may remain in the housing unit. All trash should be placed in supplied trash bags and properly disposed of off-site.

16. After collecting the sample(s) in a room, re-connect lamps or other electrical devices that were disconnected.

NOTE: Try to avoid vacuuming wet or damp areas or collecting moist materials. If a wet area is accidentally sampled, a new sample should be collected, avoiding the wet areas. Throw the wet collection device away in the trash bag. Clean the wand with a disposable wipe, wait for it to dry, and insert a new dust collection device. Resample the area. Label the new dust collection device with the same number and description as the label on the dust collection device that was thrown away.

NOTE: If the collection device is overfilled or the dust is falling out of the crevice tool during vacuuming do not be concerned. Carefully remove the crevice tool after sampling. To avoid knocking the dust onto the floor hold crevice tool pointed upwards and carefully remove the crevice tool and then the dust collection device from the vacuum. Try to contain as much sample material as possible in the sample device and plastic bag.

NOTE: If large debris is encountered in the chosen sample area, carefully remove the material by hand first so as not to clog the dust collection device and adversely affect the collection of smaller dust allergen particles of interest.

5.0 Dust Sample Collection Sites

Table 1 provides a matrix of possible sampling sites within the selected household unit. As mentioned in the background section above and explained more fully in the separate *Background and Justification* document, it is up to the grantee to determine the specific number of rooms and components to be sampled. The room(s) selected for sampling depends upon the project objectives. For example, the kitchen should be sampled if reduction in cockroach allergen loading is a major objective.

Table 1. Rooms and Components Recommended for Dust Sampling Within a Home

Room	Component	
	Sofa (or chair) or Bedding	Floor
Kitchen		X
Common Living Area	X	X
Bedroom	X	X
Basement (if present)		X

Allergen dust samples may be collected from the floor in one or all of the specified rooms. These rooms have been selected by guidelines established for HUD's National Survey of Lead and Allergens in Housing. In addition to floor samples, an allergen vacuum sample also may be collected from bedding in the chosen bedroom and from an upholstered sofa or chair in a common living area (e.g., family room, living room, etc.).

The room and component combinations that may be sampled in a housing unit include the following:

A. Kitchen Floor: Vacuum the entire perimeter of the kitchen (i.e., along base of walls, appliances, cabinets, etc.). If the counter is formed as a peninsula or island, vacuuming should follow the base of it as appropriate. There is no need to move appliances to vacuum behind or between them. Vacuuming should be performed for a minimum of **5 minutes**. The perimeter of the floor area sampled (including all turns) should be measured to the nearest centimeter and recorded in the sample log.

   Recommendations:
   - Take a single floor sample using a new dust collection device and clean crevice tool.
   - Sample entire perimeter, including edges and around appliances. Note floor type(s) in sample log.
   - Sample for 5 minutes total.
   - Record perimeter sampled in sample log.
   - Push one edge of crevice tool against wall while sampling.
   - Do not over sample cracks between floorboards and linoleum or tile.
   - Do not sample inside cabinets and underneath refrigerators and other appliances.

   Things to Consider:
   - Sample time can be adjusted, but should be consistently applied for all kitchen floor samples collected.
   - If the kitchen floor sample is taken as a part of a bulk sample, limitations on the interpretation of results need to be considered.

B.

Common living area floor: For this room, vacuum **at least 1 square meter** directly adjacent to a frequently used sofa (or chair) for **5 minutes** total.

Recommendations:

- Take a single floor sample using a new dust collection device and clean crevice tool.
- Sample designated area. Note floor type(s) in sample log.
- Sample for 5 minutes total.
- Record total sample area in sample log.

Things to Consider:

- Sample time can be adjusted, but should be consistently applied for common living area floor samples collected in all housing units.
- Sample area can be adjusted, but should be consistently applied for common living area floor samples collected in all housing units.
- If the common living area floor sample is taken as part of a bulk sample, limitations on the interpretation of results need to be considered.
- If there is a choice between sampling a rug, carpeting, or smooth floor, consider that the rug and/or carpeting likely will provide a much higher dust yield.

C. Common living area sofa (or chair): Collect a dust sample from the sofa (or chair) most often used in the selected common living area. Only upholstered sofas (or chairs) should be sampled. Vacuum the seat cushions, seat back, and arms of the sofa (or chair). Vacuum **approximately 2 square meters** of upholstered surface. This typically corresponds to an entire chair, about ½ of a love seat, or about 1/3 of a sofa. If a cushion is present on a wooden or metal sofa (or chair), the cushion should be sampled. If the cushions within the 2 square meter area are reversible, vacuum both sides. Also vacuum any throw pillows in the area. The sample should be collected for **5 minutes**.

Recommendations:

- Take a single sample using a new dust collection device and clean crevice tool.
- Sample designated area.
- Sample for 5 minutes total.
- Do not vacuum the area under the cushions or deep into the crevices of the sofa where large particles tend to collect.
- Record total sample area in sample log.
- Record the upholstery type in the sample log.
- If the seat sampled is a futon or similar furniture that is used as a sofa, it should be recorded as an upholstered chair or sofa. Any chair or sofa that has pillows, cushions, leather, vinyl, or cloth should be considered an upholstered seat.

Things to Consider:

- Sample time or area can be adjusted, but should be consistently applied for sofa (or chair) samples collected in all housing units.
- If the sofa (or chair) sample is taken as part of a bulk sample, limitations on the interpretation of results need to be considered.
- Sampling of upholstered surface may be performed in an alternate manner (e.g. sampling only seat cushions, not sampling pillows, etc.). If so, details of collection should be specified in alternate protocol to be used by all technicians

for sampling of sofa (or chair), and sampled surface area(s) should be recorded in sample log.

D. Bedroom Floor: If possible, arrange the template so that **0.25 square meter** of the area to be vacuumed (**at least 1 square meter**) is under the bed. If this is not possible (i.e., because the mattress is on the floor, or objects under the bed prevent access), include as much of the 0.25 square meter area as possible under the bed. Vacuum the sample area for **5 minutes**.

Recommendations:

- Take a single floor sample using a new dust collection device and clean crevice tool.
- Sample designated area. Note floor type(s) in sample log.
- Sample for 5 minutes total.
- Record total sample area in sample log.

Things to Consider:

- Sample time or area can be adjusted, but should be consistently applied for bedroom floor samples collected in all housing units.
- If the bedroom floor sample is taken as part of a bulk sample, limitations on the interpretation of results need to be considered.

E. Bedroom Bedding: Collect the bedding sample from the bed most often slept in. Occasionally, a bed may not be a conventional bed (i.e., it may be a couch or a pad). Sample these in a manner similar to a conventional bed. Handle all bedding layers with care and do not step on them. Occupants may be asked to assist in the sampling of the bedding. Vacuum all layers of the bedding (i.e., covers, blankets, top sheets, bottom sheet, mattress pad, "egg-carton" style pads, mattress, and pillows) for a total of **5 minutes**. Vacuum at least **2 square meters** of the bedding: if the bed is a single bed, vacuum the entire surface; if it is a double bed or larger, measure one meter width and vacuum down the length of the bed within the 1-meter wide area. The breakdown of the bedding sample follows:

1. **30 seconds** - one pillow (preferable the primary sleeping pillow) inside the pillowcase (if possible) without removing the pillowcase, and both sides of the pillow
2. **2.5 minutes** - all of the bedding layers described above.
3. **2 minutes** - mattress surface (impermeable, fully encapsulated mattresses should be sampled by vacuuming the top layer. Do not remove the cover).

Handle all bedding sensitively. Do not put it on the floor or in a place where it can get dirty or stepped on. Ask the family for assistance or suggestions, if necessary. Remake the bed as closely as possible to the way the family had it made up originally.

NOTE: Bedrooms are rooms that people sleep in on a regular basis. Rooms that are designed as bedrooms, but are being used for another purpose (e.g., as a guest room, office, playroom, sewing room, or storage room) are not included as bedrooms.

Recommendations:

- Take a single bedding sample using a new dust collection device and clean crevice tool.
- The following items are not to be vacuumed in the bedroom: stuffed animals, areas under the mattress, towels, and box spring surfaces. Rolled up blankets that serve as pillows should be vacuumed if they are on the bed at the time of sampling.
- Sample designated area regardless of bedding type.
- Sample for 5 minutes total.
- As best as possible, record total sample area in sample log.
- Record bedding layers sampled in the sample log.

Things to Consider:

- Sample time and area can be adjusted, but should be consistently applied for bedding samples collected in all housing units.
- Bedding layers sampled can be adjusted so only those layers desired are sampled, but the bedding layers sampled should be consistently sampled across all bedding samples collected in all housing units.
- If the bedding sample is taken as part of a bulk sample, limitations on the interpretation of results need to be considered.

F. Basement Floor: The basement also may be sampled at the discretion of the investigator. If it is chosen, then an area of **at least 1 square meter** from the center of the largest open area of the floor should be sampled for **5 minutes total**.

Recommendations:

- Take a single floor sample using a new dust collection device and clean crevice tool.
- Sample designated area. Note floor type(s) in sample log.
- Sample for 5 minutes total.
- Record total sample area in sample log.

Things to Consider:

- Sample time and area can be adjusted, but should be consistently applied for basement floor samples collected in all housing units.
- If the basement floor sample is taken as part of a bulk sample, limitations on the interpretation of results need to be considered.

6.0 Dust Sample Logs

An example set of dust sample logs is provided in the appendix. These are adapted from the dust sample logs used in the National Survey for Lead and Allergens in Housing. In this set, each type of room is associated with a different log. Each dust sample log should contain the following information:

- Housing Unit Number - Record the unique identification number for the housing unit in the space provided.

- Initials - Record the initials of the sampling technician or other person who is actually collecting the dust samples. This is not necessarily the person filling out the form.

- Date - Record the date on which the dust samples were collected.

- Room Code Number - Record the Room Code Number for the room being tested.

- Surface Code - Circle all the Surface Code(s) which apply to the allergen dust sample(s) taken from floors. This is the material of which the vacuumed floor covering is made. The choice of Surface Codes is listed in the right hand corner of the form. The choices are:

  C (Carpeted): Circle this code if any carpet is present in the sampled floor area.

  SC (Smooth and cleanable): Circle this code if any smooth and cleanable surface (e.g., tile, linoleum) is present in the sampled floor area.

  NSC (Not smooth and cleanable): Circle this code if any non-carpeted surface which is not smooth and cleanable (e.g. brick, porous concrete, unfinished wood, dirt, unwaxed and rough floor tile) is present in the sampled floor area.

- Room Temperature - Measure the temperature of the room and record it under Room Temperature. Also make sure the thermometer has been in the room at least 5 minutes before reading temperature.

- Room Humidity - Measure the relative humidity in the room with the relative humidity gauge. Record the value under Room Humidity. Make sure the relative humidity gauge has been in the room at least 5 minutes before reading humidity. Note that some of these instruments require 20-30 minutes to come to equilibrium.

- Floor Area Vacuumed - Measure the area (perimeter) sampled to the nearest centimeter and record it under Floor Area Vacuumed.

- If no sample, Reason Code - If a sample cannot be collected, indicate the reason by placing the appropriate code in the blank space from the list at the bottom of the form. If the reason is other 'O/Other', also write the reason in the space.

In addition, the following information should be specified within the following room-specific logs:

Bedroom

- Number of layers of bedding - Count and record the number of layers of bedding vacuumed. If some very small blankets (e.g., cloth diapers, towels etc.) are vacuumed, they can be collectively counted as a layer. Do not count the pillow as a layer. Also do not count the mattress as a layer.

Common Living Area

- Upholstery Code - Record the appropriate code (from the list in lower right corner of the form) for the upholstery type vacuumed on the sofa (or chair).

7.0 Shipping Samples to Laboratories

Allergen dust samples should be shipped at regular intervals to the chosen laboratory for analysis. In order to ensure proper data quality, specific handling, shipping, and records procedures should be followed. It would be best for samples to be stored in a freezer (-20°C) if they are kept more than a week. If the samples are shipped weekly to the laboratory, they do not need to be stored frozen but should be kept cool and away from moisture sources that can affect sample quality.

Chain of custody forms need to be completed for all samples shipped to a laboratory in order to maintain of record of the parties responsible for the sample integrity at any given time and to provide a written record of the specific samples shipped to the laboratory for analyses. An example chain of custody form is provided in the appendix.

8.0 Additional Suggestions

In addition to the protocol specifications outlined above, the following optional procedures might also prove useful.

Pictures

The taking of pictures might be helpful in later interpretation or to serve as a record in longitudinal studies where repeat measurements might need to be taken over time. If pictures are to be taken, then a camera and supplies should be added to the grantee supply list for all sampling. Pictures taken should be organized and adequately documented in order to ensure that they will be useful at a later point in time.

Site Plan

A site plan or drawing of the housing unit, including indications of sample areas and room measurements also may be useful in later interpretation or as a record for repeat measures over time in longitudinal studies. If a site plan is to be drawn for each housing unit then adequate supplies to measure and record such a rendering should be added to the supply checklist for each housing unit.

APPENDIX

Allergen Dust Sampling Log
Kitchen – Room Code # _____

HU # _____
Initials _____
Date ____/____/____

Size of Crevice Tool/Collection Tool Opening: _____ cm

Sample #	Location	Surface sample code (circle all that apply)	Room Temperature	Room Humidity	Floor Perimeter Vacuumed	If no sample, Reason Code
_____	Kitchen - Floor	C SC NSC	_____ °F	_____ %	_____ m _____ cm	

Kitchen Observations:	Yes	No
1 Mildew observed?	□	□
2 Other moisture evidence?	□	□
3 Food debris observed?	□	□
3a Greasy stove?	□	□
4 Evidence of smoking?	□	□
5 Cockroach stains?	□	□
6 Live/dead cockroaches?	□	□
7 Evidence of rodents?	□	□
8 Room air conditioner?	□	□
9 Dehumidifier?	□	□
10 Air cleaning device?	□	□
11 Humidifier/vaporizer?	□	□

Surface Sample Codes
C = Carpeted
SC = Smooth and Cleanable
NSC = Not Smooth/Cleanable

Reason Codes (for no sample)
I = Inaccessible
NA = Not Allowed
O = Other (specify)

Comments:

Allergen Dust Sampling Log
Common Living Area – Room Code # _____

HU # _____
Initials _____
Date ____/____/____

Sample #	Location	Surface sample code (circle all that apply)	Room Temperature	Room Humidity	Floor Area Vacuumed	If no sample, Reason Code
_____	Living Area - Floor	C SC NSC	_____ °F	_____ %	_____ cm _____ cm	

Sample #	Location	Upholstery Code	Room Temperature	Room Humidity	Sofa/Chair Area Vacuumed	If no sample, Reason Code
_____	Living Area – Sofa/Chair	L P V W O	_____ °F	_____ %	_____ cm _____ cm	

Living Area Observations:	Yes	No
1 Mildew observed?	□	□
2 Other moisture evidence?	□	□
3 Food debris observed?	□	□
4 Evidence of smoking?	□	□
5 Cockroach stains?	□	□
6 Live/dead cockroaches?	□	□
7 Evidence of rodents?	□	□
8 Room air conditioner?	□	□
9 Dehumidifier?	□	□
10 Air cleaning device?	□	□
11 Humidifier/vaporizer?	□	□

Surface Sample Codes
C = Carpeted
SC = Smooth and Cleanable
NSC = Not Smooth/Cleanable

Upholstery Codes
L = Leather
P = Plastic /Vinyl
V = Velvet/velour
W = Woven Fabric
O = Other (specify]

Reason Codes
I = Inaccessible
NA = Not Allowed
O = Other (specify)

Comments:

Allergen Dust Sampling Log
Bedroom – Room Code # _____

HU # _____
Initials _____
Date ____/____/____

Sample #	Location	Surface sample code (circle all that apply)	Room Temperature	Room Humidity	Floor Area Vacuumed	If no sample, Reason Code
_____	Bedroom - Floor	C SC NSC	_____ °F	_____ %	_____ cm x _____ cm	

Sample #	Location	Number of layers of bedding?	Room Temperature	Room Humidity	Bedding Area Vacuumed	If no sample, Reason Code
_____	Bedroom - Bedding		_____ °F	_____ %	_____ cm x _____ cm	

Bedroom Observations:	Yes	No
1 Mildew observed?	□	□
2 Other moisture evidence?	□	□
3 Food debris observed?	□	□
4 Evidence of smoking?	□	□
5 Cockroach stains?	□	□
6 Live/dead cockroaches?	□	□
7 Evidence of rodents?	□	□
8 Room air conditioner?	□	□
9 Dehumidifier?	□	□
10 Air cleaning device?	□	□
11 Humidifier/vaporizer?	□	□
12a Fully encapsulating case on mattress?	□	□
12b Fully encapsulating case on box spring?	□	□
12c Fully encapsulating case on pillow?	□	□
13 Stuffed animals in bed?	□	□

Surface Sample Codes
C = Carpeted
SC = Smooth and Cleanable
NSC = Not Smooth/Cleanable

Reason Codes (for no sample)
I = Inaccessible
NA = Not Allowed
O = Other (specify)

Comments:

Allergen Dust Sampling Log
Basement – Room Code # _____

HU # _____
Initials _____
Date ____/____/____

Sample #	Location	Surface sample code (circle all that apply)	Room Temperature	Room Humidity	Floor Area Vacuumed	If no sample, Reason Code
_____	Basement - Floor	C SC NSC	_____ °F	_____ %	____ cm x ____ cm	

Basement Observations:	Yes	No
1 Mildew observed?	□	□
2 Other moisture evidence?	□	□
3 Food debris observed?	□	□
4 Evidence of smoking?	□	□
5 Cockroach stains?	□	□
6 Live/dead cockroaches?	□	□
7 Evidence of rodents?	□	□
8 Room air conditioner?	□	□
9 Dehumidifier?	□	□
10 Air cleaning device?	□	□
11 Humidifier/vaporizer?	□	□

Surface Sample Codes
C = Carpeted
SC = Smooth and Cleanable
NSC = Not Smooth/Cleanable

Reason Codes (for no sample)
I = Inaccessible
NA = Not Allowed
O = Other (specify)

Comments:

Chain of Custody Record

Grantee: _____

Sampler(s)	Sampler(s)
Name (please print): _____	Name (please print): _____
Signature: _____	Signature: _____
Name (please print): _____	Name (please print): _____
Signature: _____	Signature: _____

Date Collected	Time Collected	Sample ID	Remarks

Relinquished by: (signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (signature)	Date	Time	Received by: (Signature)	Date	Time