

**COLLECTION AND HANDLING PROCEDURES FOR OFFICIAL HORSE POST-RACE  
BLOOD AND URINE SPECIMENS**

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**I. INTRODUCTION**

Ohio State Racing Commission (OSRC) veterinarians are responsible for supervising the collection of horse blood and urine specimens in areas designated by the OSRC for that purpose. Furthermore, OSRC veterinarians are responsible for verifying the identity of horses from which specimens are obtained and for ensuring that all specimens are properly sealed and that unique specimen identification labels are properly affixed to them. Finally, OSRC veterinarians are responsible for creating an external chain of custody record that documents specimen collection, sealing, and packaging for shipment to the testing laboratory. This standard operating procedure was prepared for OSRC veterinarians to guide them in performing these duties. Deviations from these procedures will cause specimens to be invalidated if their integrity or unbroken chain of custody cannot be verified.

**II. SCOPE**

This standard operating procedure specifies procedures to be followed by OSRC veterinarians and veterinary assistants when collecting blood and urine specimens obtained after a horse race and preparing them for shipment to the testing laboratory. Refer to Analytical Toxicology Laboratory standard operating procedure section 205 "*Collection and Handling Procedures for Blood Specimens for TCO<sub>2</sub> Testing*" for procedures to be followed when collecting and shipping pre-race blood specimens for TCO<sub>2</sub> testing. Standard operating procedures for post-race and pre-race specimens are identical in many respects.

**III. PRINCIPLE OF METHOD**

The procedures specified in this standard operating procedure are based on the principles that the horse from which each specimen is collected must be positively identified and that the specimens collected from each animal must be uniquely labeled so that the origin of each specimen can be unambiguously determined and demonstrated. Furthermore, the personnel responsible for specimen collection are provided standardized collection materials and are required to record all information in a standardized and prescribed manner on forms provided for that purpose.

**IV. REFERENCE PROCEDURES**

- A. *Analytical Toxicology Laboratory Standard Operating Procedures Manual Section 205 ("Collection and Handling Procedures for Blood Specimens for TCO<sub>2</sub> Testing")*

**V. DEFINITIONS AND ACRONYMS**

- A. OSRC – Ohio State Racing Commission

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B. ATL – Analytical Toxicology Laboratory

**VI. SUPPLIES**

- A. *OSRC Horse Specimen Identification Tag* (General Business Forms, Skokie, IL 60077, or equivalent). Form # ATL 1990-02.
- B. *External Chain of Custody Form* (General Business Forms, or equivalent). Form # ATL 1996-08.
- C. Tamper Evident Specimen Seals (NovaVision, Bowling Green, OH 43402, Electronic Imaging Corporation, 180 Emerald Street, Keene, NH 03431, Sirchmark™, cat. no. SM2000 or equivalent, Sirchie® Finger Print Laboratories, Inc., Youngsville, NC 27596, or equivalent). Form # ATL 2000-04. DO NOT use Electronic Imaging Corporation Tamper Evident Seals to seal the horse urine containers. Electronic Imaging Corporation Tamper Evident Seals may be used to seal the Whirlpak® bags containing the blood specimens.
- D. Alphanumeric Bar-code Specimen Seal Number labels, code 128 B (NovaVision, or equivalent).
- E. Specimen Shipping Container Plastic Padlock Seals (cat. no. 617, E.J. Brooks Company, Newark, NJ 07107, or equivalent).
- F. Vacutainer® Sodium Heparin Tubes, 10-mL, 16 x 100-mm, green-top (cat. no. 02-685-3B, Fisher Scientific, Pittsburgh, PA 15238-2911, or equivalent).
- G. Blood collection needles, 20 gauge, 1½" (cat. no. 14219-176, VWR International, Obetz, OH 43207, or equivalent).
- H. Whirlpak® Bags (product number B00679WA, NASCO, Fort Atkinson, WI 53538-0901, or equivalent).
- I. Containers for collection of horse urine specimens, pre-sealed, polypropylene (300-mL, cat. no. 10CCCL, Capitol Vial, Inc., Fultonville, NY 12072, or equivalent).
- J. Custody Containers for transport of horse urine specimen, pre-sealed, polypropylene (polyethylene lid, 120-mL, cat. no. 4936, Medegen Medical Products, Gallaway, TN 38036, or equivalent).
- K. Transport bags with liquid-tight closure without biohazard logo (6" x 10", cat. no. 304-WO, Substance Abuse Specialties, Inc., Marietta, GA 30066, or equivalent).
- L. Absorbent pads (120-mL urine capacity, 6" x 6", cat. no. 403, Substance Abuse

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Specialties, Inc., or equivalent).

- M. Absorbent paper towels or light duty wipers.
- N. Liquid household bleach (active ingredient is approximately 6% sodium hypochlorite).
- O. Gloves, powder-free, disposable (cat. no. S47330, Fisher Scientific, or equivalent).
- P. Bill of lading shipping forms from US Cargo and Courier Corporation or other approved courier.

**VII. APPARATUS/OTHER SUPPLIES**

- A. Lockable refrigerator
- B. Specimen-shipping container
- C. Permanent marker
- D. Balance, electronic, top-loading, with a 500 gm capacity (Ohaus model AV-510, cat. no. 01-918-122, Fisher Scientific, or equivalent)
- E. Urine specimen collection pole
- F. Plastic pail

**VIII. PROCEDURES FOR COLLECTION, LABELING, AND SEALING OF SPECIMENS**

- A. Prepare a *Horse Specimen Identification Tag* for each horse selected for testing. Complete the top portion of the form by circling the appropriate two-letter abbreviation of the racetrack name and recording the race date, race number, finish-position, sex, age, tattoo number, and name of the horse. Record the post-position of the horse as the finish-position on this form. See Figure 1.
- B. Circle the appropriate abbreviation for the racetrack name and record the date of the race on seven of the short, bar-coded specimen identification labels on the *Horse Specimen Identification Tag*. Record the letter "L" on each of the labels if the horse was programmed to race on Salix<sup>®</sup> (formerly known as Lasix<sup>®</sup>). NOTE: If only a blood specimen of two Vacutainer<sup>®</sup> tubes is collected, then only 5 labels will be needed. See Figure 1.

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**OHIO STATE RACING COMMISSION** 294485

BP  NF    SD    LE    RW    RD    TH    FAIR: \_\_\_\_\_

6/23/04    1    1    B    2    X0191  
DATE    RACE #    FINISH    SEX    AGE    TATTOO NUMBER

NAME OF HORSE: BONNIE BLUE

| URINE  | BLOOD  |
|--|--|
| I HEREBY CERTIFY THAT I<br>WITNESSED THE COLLECTION<br>AND SEALING OF THIS SAMPLE. | I HEREBY CERTIFY THAT I<br>WITNESSED THE COLLECTION<br>AND SEALING OF THIS SAMPLE. |
| <u>J Smith</u><br>WITNESS SIGNATURE  | <u>Bev Smith</u><br>WITNESS SIGNATURE  |
| <u>56400</u><br>OSRC LICENSE #   | <u>56234</u><br>OSRC LICENSE #   |
| <u>Mark Reagen</u><br>COLLECTOR'S SIGNATURE  | <u>Will Marrett</u><br>VETERINARIAN'S SIGNATURE                                    |
| DATE: <u>6/23/04</u> TIME: <u>7<sup>30</sup>P</u>                                  | DATE: <u>6/23/04</u> TIME: <u>7<sup>40</sup>PM</u>                                 |

  
6/23/04 294485 L

  
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**Figure 1. OSRC Horse Specimen Identification Tag Form # ATL 1990-02.**

- C. Confirm the identity of the horse by comparing the tattoo number on the horse with the tattoo number recorded on the *Horse Specimen Identification Tag* after the horse enters the collection facility and when a blood specimen is collected.
- D. Request the trainer or trainer's representative to witness the collection and sealing of the blood and urine specimens.
- E. Collect two tubes of blood from a jugular vein of the horse approximately 30 minutes after the horse arrives in the collection facility. Mix the blood in the tube by gently inverting it five times. **Without delay**
  - 1. Remove two of the short, marked, bar-coded specimen identification labels from the *Horse Specimen Identification Tag* and affix a label to each of the blood collection tubes. This label is used to uniquely identify

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the blood specimen.

2. Place the filled Vacutainer<sup>®</sup> tubes in a Whirlpak<sup>®</sup> bag, fold the top of the bag over. Seal the bag by placing a Tamper Evident Specimen seal over the top of the bag. See Figure 2.

**NOTE:** Handle the Tamper Evident Specimen seal very carefully. Touching the adhesive surface of the seal can destroy the seal's tamper evident properties; note that the seal cannot be repositioned once it has been applied. If a seal is poorly applied, place a second seal on the Whirlpak<sup>®</sup> bag and document this action on the *External Chain of Custody* form.



**Figure 2. Post-race blood collection tubes with labels affixed and sealed in a Whirlpak<sup>®</sup> bag.**

3. Appropriately discard all blood collection supplies after each blood specimen has been collected. Take all necessary precautions to avoid contamination of subsequent blood specimens.
- F. Place another short, marked, specimen identification label from the *Horse Specimen Identification Tag* on the Whirlpak<sup>®</sup> bag (see Figure 2) so that it can be readily scanned with the bar-code reader in the laboratory. Verify that the tag number on the Whirlpak<sup>®</sup> bag matches the tag number on each of the blood tubes.
  - G. Immerse the cup holder end of a collection pole in an approximately 5% bleach solution for approximately 5 minutes. When needed for use, remove the pole

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from the solution and rinse it thoroughly with water. Shake the pole to remove excess water. Do not attempt to dry the cup holder or pole but allow them to air dry. Observe all safety precautions on the bleach container label.

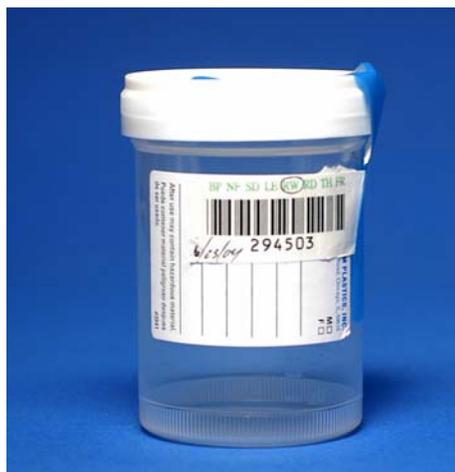
- H. Wearing a new pair of gloves and carrying necessary collection supplies, enter the stall where the urine specimen will be collected; place the urine specimen collection container in the cup holder on the end of the collection pole; break the seal of a new urine collection container in the presence of the witness.
1. Do not use a collection container that has been previously opened.
  2. Discard any collection container which was used in an unsuccessful urine specimen collection attempt.
  3. Do not touch the interior of the collection container.
  4. Do not touch or handle other objects, animals, etc. with gloved hands.
  5. Do not reuse gloves for the collection of other specimens.
  6. Close the lid of the container immediately after collecting the urine specimen.
  7. Discard any specimen that is contaminated with straw, other bedding materials, or any other substance and attempt to collect another specimen. Do not submit a contaminated specimen for laboratory analysis.
- I. After collecting the urine specimen, invert the closed container five times to mix the urine sample, and **without delay**
1. Put on a new pair of gloves and break the seals on 2 new urine transport containers.
  2. Pour at least 60-mL of urine into one container and the remainder into the other container. If the volume of collected urine is greater than 120 mL, pour approximately equal volumes of urine into each transport container up to the maximum volume of the container (*i.e.*, 110 mL). Do not overfill the container (*i.e.*, > 110 mL).
  3. Place the lids squarely on the containers and screw the lids closed until they are fully tightened. If a lid is not placed squarely on a container, urine will likely leak from the container during transit causing a weight discrepancy that may result in invalidation of the urine specimen.

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4. If necessary, remove urine and other substances from the outside of the container by rinsing the container with tap water and then drying it with an absorbent towel. Dry the container completely so that there is no residual water on the container that could be transferred to the absorbent pad.
5. Remove gloves and seal each urine container with a Tamper Evident Specimen seal placed on the top of the lid and down one side of the container. Do not use Electronic Imaging Corporation Tamper Evident Seals. See Figure 3.

**NOTE:** Handle the specimen seal very carefully. Touching the adhesive surface of the seal can destroy the seal's tamper evident properties; the seal cannot be repositioned once it has been applied. If a seal is poorly applied, place a second seal on the container and document this action on the *External Chain of Custody* form.



**Figure 3. Post-race urine specimen transport cup with specimen identification tag affixed.**

6. Affix a short, marked, bar-coded specimen identification label from the *Horse Specimen Identification Tag* horizontally to the side of each urine transport container. This label is used to uniquely identify the urine specimen. **Do not** place the label on the lid of the container.
  7. Discard the gloves and the urine collection container. Do not re-use gloves or urine collection containers. Take all necessary precautions to avoid contamination of subsequent urine specimens.
- J. Request the trainer or trainer's representative who witnessed the collection and

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sealing of the blood and urine specimens to sign his or her name and record his or her OSRC License number on the lines marked **Witness Signature** and **OSRC License #**, respectively, in the appropriate sections (*i.e.*, **URINE** or **BLOOD**) of the *Horse Specimen Identification Tag*. If different persons witnessed collection of the two specimens, request each witness to sign for the specific specimen collection that he or she observed. Leave the appropriate section blank if no specimen was collected. See Figure 1.

- K. Request the specimen collector to sign on the line marked **Collector's Signature** and to record the date and time of collection in the **URINE** section of the *Horse Specimen Identification Tag* if a urine specimen was collected. Sign on the line marked **Veterinarian's Signature** and record the date and time of collection in the **BLOOD** section of the *Horse Specimen Identification Tag* if a blood specimen was collected. See Figure 1.
- L. Separate the top and bottom sheets of each *Horse Specimen Identification Tag*. Retain the bottom portion of each *Horse Specimen Identification Tag* for your records and forward the top sheet to the Ohio State Racing Commission.
- M. Verify that each specimen has been sealed in such a way that the integrity of the specimen is ensured.

**IX. COMPLETING THE EXTERNAL CHAIN OF CUSTODY FORM AND PREPARATION FOR SHIPMENT**

- A. Prepare *External Chain of Custody* form(s) for the specimens collected by recording the name of the racetrack and the race date at the upper right-hand corner of the *External Chain of Custody* form(s). See Figure 4.

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The Ohio State Racing Commission  
Specimen Chain of Custody

TRACK SCOTO DOWNS  
RACE DATE 7-22-05

| ID TAG LABEL  | SAMPLE TYPE           |                  |             | TIME COLLECTED        | URINE COLLECTED & SEALED BY | COMMENTS/INSTRUCTIONS | TRANSPORT BAG SEAL NUMBER |
|---|-----------------------|------------------|-------------|-----------------------|-----------------------------|-----------------------|---------------------------|
|   | # OF URINE CONTAINERS | BLOOD # OF TUBES | HUMAN URINE |                       |                             |                       |                           |
| <small>BP NY (L) RW RD TH FR</small><br><br>(L) 523190 7-22-05 | 2                     | 2                |             | 9 <sup>10</sup><br>P  | TC                          |                       | A7499                     |
| <small>BP NY RW RD TH FR</small><br><br>523191 7-22-05         | 0                     | 2                |             | 9 <sup>15</sup><br>P  |                             |                       | A7501                     |
| <small>BP NY (L) RW RD TH FR</small><br><br>(L) 523193 7-22-05 | 1                     | 2                |             | 10 <sup>00</sup><br>P | MP                          |                       | A7500                     |
| <small>BP NY RW RD TH FR</small><br><br>(L) 523192 7-22-05     | 0                     | 2                |             | 11 <sup>00</sup><br>P |                             |                       | A7501                     |
|   |                       |                  |             |                       |                             |                       |                           |
|   |                       |                  |             |                       |                             |                       |                           |
|   |                       |                  |             |                       |                             |                       |                           |
|   |                       |                  |             |                       |                             |                       |                           |
|   |                       |                  |             |                       |                             |                       |                           |
|   |                       |                  |             |                       |                             |                       |                           |
|   |                       |                  |             |                       |                             |                       |                           |
|   |                       |                  |             |                       |                             |                       |                           |

Specimen(s) placed in sample box and secured by:  
 Veterinarian's Signature: Marcus Homes  
 Date: 7/22/05 Time: 11:30 pm

BOX SEAL NUMBER  
0010105

Specimen(s) accessed by:  
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Total # of Pages: 1

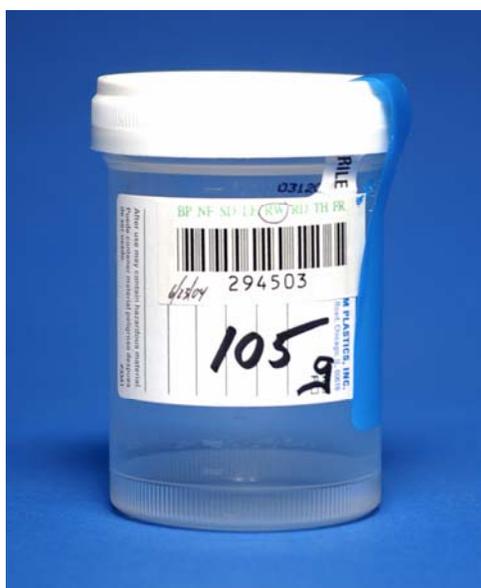
**Figure 4. External Chain of Custody Form # ATL 1996-08.**

- B. Affix the short, marked, specimen identification labels from the *Horse Specimen Identification Tag* to the top and bottom sheets of the *External Chain of Custody* form in the column headed **ID TAG LABEL**.
- C. Ask the person responsible for collecting the urine specimen to record:
  1. the number of urine containers (*i.e.*, 0, 1, or 2) from each horse in the column labeled **# of Urine Containers**;
  2. the time the urine specimen was collected in the column labeled **Time Collected**;
  3. collector's initials in the column labeled **Urine Collected & Sealed By**;

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- D. Tare the balance using an empty specimen transport container with a lid, identification tag, and Tamper Evident Specimen seal.
- E. Weigh each specimen and record the weight, in grams (e.g., 105, not 104.8), on the manufacturer's pre-affixed label on the specimen container using a permanent marker. See Figure 5.



**Figure 5. Post-race urine specimen transport cup with the weight of the specimen recorded on the label.**

- F. Record the number of blood tubes collected from each horse in the column labeled **Blood # of Tubes**.  
Record the time the blood specimen was collected in the column headed **Time Collected**, if no urine specimen was collected.
- G. Record any specimen other than blood or urine under the column headed **Other**.
- H. Record any comments or special instructions in the column headed **Comments/Instructions**.
- I. Place the blood specimen and the corresponding urine specimens (i.e., all specimens collected from a horse) and an appropriate number of absorbent pads (i.e., two 6" x 6" pads, if both urine transport containers are full) in a transport bag and seal the bag. Verify that the bag is properly sealed.

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**NOTE:** Place all blood specimens which do not have corresponding urine specimens in one transport bag with an appropriate number of absorbent pads.

- J. Place an **Alphanumeric** Bar-code Specimen Seal Number label on the exterior of the transport bag (see Figure 6) and record the seal number in the column headed **Transport Bag Seal Number** on the *External Chain of Custody* form (see Figure 4).



**Figure 6. Post-race blood and urine specimens in transport bag with Alphanumeric Bar-code Specimen Seal attached.**

- K. Verify all entries for each horse. A veterinary assistant or the OSRC veterinarian may perform this review; the person performing the review should document this procedure by recording their initials in the column headed **Verified Urine & Blood Tag Number**.
- L. Place the labeled, sealed blood and urine specimens in a locked refrigerator. It is acceptable to place the specimen-shipping container in the refrigerator and to place specimens in the shipping container as they are collected.
- M. When all pre-race and post-race specimens have been collected, place the specimens in the specimen-shipping container if they are not already in the container. Place bagged urine and blood specimens in an upright position with

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sufficient packing material (e.g., newspapers) to assure that the specimen containers will not tip over during transit.

- N. When the specimen-shipping container is ready to be sealed, sign your name and record the date, time, total number of *External Chain of Custody* forms, and the identification number of the Specimen-Shipping Container Padlock (plastic seal) at the bottom of each *External Chain of Custody* form. If more than one *External Chain of Custody* form was used, record the identification number of the padlock on each form. Record the same date and time of sealing of the specimen-shipping container on each *External Chain of Custody* form. If there is more than one specimen-shipping container, record all padlock identification numbers on all *External Chain of Custody* forms.

Note that the date and time that are to be recorded on the *External Chain of Custody* form(s) are the actual date and time at which you sign this record. The race date is entered on the *External Chain of Custody* form(s) in the upper right-hand corner and may be different from the date on which you sign the record. If the *External Chain of Custody* form(s) is signed after midnight of the race date, the date of signing must be one calendar day later than the race date.

The date and time of closing the Specimen-Shipping Container Padlock should be the same on each *External Chain of Custody* form.

- O. Verify that all information has been recorded and that all items have been placed in the specimen-shipping container. Place the top sheet of each *External Chain of Custody* form in the specimen-shipping container. Retain the bottom sheet of each *External Chain of Custody* form for your records.
- P. Using a permanent marker, record the racetrack name abbreviation and the race date on the back of the padlock(s). **Do not place the padlock(s) on the specimen-shipping container(s) until everything has been placed inside the container(s).**
- Q. Seal the specimen-shipping container(s) using the padlock(s); verify that each seal is secure. If the specimen-shipping container is sealed, it cannot be reopened without cutting the metal wires securing the seal.
- R. If there is a need to remove the padlock, draw one line through the **Box Seal Number** recorded on the *External Chain of Custody* form(s), record the new padlock number, and then date and initial the correction. **Place the removed padlock in the specimen-shipping container.** Record the initials of the racetrack and the race date on the back of the new padlock and reseal the specimen-shipping container.

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- S. Prepare a bill of lading shipping form and affix it to the specimen-shipping container. Describe the contents of the container in block #5 as “samples” and record your name, the date, and the time in block #6 under **Shipper’s Signature**. See Figure 7.

Note that deviations from these instructions that are noted by our laboratory personnel during specimen accessioning procedures will be recorded and reviewed by a responsible person to assess their significance and probable effect(s) on specimen integrity.

**Figure 7. US Cargo and Courier shipping bill of lading.**

**X. CORRECTIONS**

Correct any recording error by drawing a single line through the error without obliterating or obscuring the original entry and make the necessary correction. Record the date, your initials, and a brief explanation for each correction.

**XI. RESPONSIBLE INDIVIDUALS**

- A. Ohio State Racing Commission veterinarians
- B. Veterinary assistants

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- C. Specimen custodian
- D. Supervisor of the Specimen Accession Area

**Revised by:**

Dr. Richard Sams and Lucille Kaminski

**Revision History:**

A summary of the procedural changes for this standard operating procedure is indicated below.

Changes in the Eight Revision Effective 10/09/06:

- 1. Section VI.C, D, H, I, P, VIII.I.5 – Allowed for more options of vendor or product.
- 2. Section VIII.E – Removed reference to county fair specimen collection.
- 3. Section IX Figure 4 – Updated example.

Changes in the Seventh Revision Effective 01/27/06:

- 1. Sections I, II – Last sentence added.
- 2. Section IV – Dropped reference procedure.
- 3. Sections VI.G, O – Updated supply vendors.
- 4. Section VIII.C – Added when to perform the activity.
- 5. Section VIII.E – Added a time (*i.e.*, 30 minutes) for collecting the blood specimen.
- 6. Section VIII.E.2 – Deleted instruction to include wire ends of bag under specimen seal.
- 7. Sections VIII.E.2 Note, I.5 Note – Added instruction regarding second seal.
- 8. Section VIII.H – Expanded the instruction on collecting the specimen; specified collection container seal to be broken in the presence of the witness.
- 9. Section VIII.H.7 – Added instruction to collect a new urine specimen if contamination occurs.
- 10. Section VIII.I.2 – Added warning to not overfill urine containers.
- 11. Section VIII.I.3 – Added second sentence explaining ramification of not properly positioning the lid on the urine container.
- 12. Section VIII.I.4 – Expanded the instruction of drying the container.
- 13. Sections IX.A Figure 4, C.1, J, N – Revised *External Chain of Custody* form: dropped recording the sex of the horse, added recording the total number of pages, changed column titles (*i.e.*, # of Urine Containers and Transport Bag Seal Number).
- 14. Section IX.K – Moved section to verify entries from *before* to *after* placing specimens in the transport bag. Dropped allowing a checkmark to indicate that entries had been verified.

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15. Section IX.L – Added last sentence regarding storage of specimen in the shipping container.
16. Section IX.N – Added second and third paragraphs regarding date and time recorded on each page of the *External Chain of Custody* form.
17. Section IX.O, R – Dropped instruction to place the *External Chain of Custody* form or the broken seal in a bag prior to shipping.
18. Section IX.S, Figure 7 – Added second sentence specifying to fill in boxes 5 and 6 and dropped filling in box 3 on the Bill of Lading shipping form.

Changes in the Sixth Revision effective 04/29/05:

1. Section VI.N – Added clarification to supply.
2. Section VII.F – Added item.
3. Section VIII.G – Added clarification to cleaning collection pole instructions. Decreased bleach solution to 5%.
4. Section VIII.H.6 – Added clarification to place the lid on the urine specimen container *immediately*.
5. Section VIII.I – Added instruction to mix the urine specimen by inversion five times prior to dividing the collected specimen.

Changes in the Fifth Revision effective 07/21/04:

1. Section VI.C, D – Tamper evident seal changed. Separate bar-code number labels added. Dropped pull-tight specimen seal.
2. Section VI.J – Added a dedicated, separate container for specimen transport.
3. Section VI.K, L – Type of specimen transport bag and absorbent changed.
4. Section VI.N, O - Gloves and bleach added.
5. Section VII.D – Balance added.
6. Section VIII.B – Additional specimen identification tag required. Figure 1 added.
7. Section VIII.E.2, I.5 – Note added regarding handling the specimen seal. Figure 2 added.
8. Section VIII.G, H, I.1, I.7, IX.K – Procedures to avoid contamination specified.
9. Section VIII.I – New procedure regarding splitting urine specimen. Figure 3 added.
10. Section IX.A – Figure 4 added.
11. Section IX.D – Number of urine containers shipped to be recorded. Dropped recording of urine seal number by urine collector.
12. Section IX.E, F – Weight of urine specimens to be recorded. Figure 5 added.
13. Section IX.K – Blood specimens to be added to corresponding urine specimens in a transport bag with absorbent. Added placing blood only specimens in a transport bag with absorbent.
14. Section IX.L – Bar-code numbers to be added to exterior of transport bags. Figure 6 added.
15. Section IX.T – Bill of Lading criteria specified.

Changes in the Fourth Revision effective 10/13/03:

**STANDARD OPERATING PROCEDURES  
ODA ANALYTICAL TOXICOLOGY LABORATORY**

Section Code: 204  
Effective Date: 10/09/06  
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**COLLECTION AND HANDLING PROCEDURES FOR OFFICIAL HORSE POST-RACE  
BLOOD AND URINE SPECIMENS**

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1. Section IV – Added new section “*Reference Procedures*”.
2. Section V – Added new section “*Definitions and Acronyms*”.
3. Section VI.G, K – Added needles and absorbent towels.
4. Section VI.J – Changed specifications for reclosable bags.
5. Section VIII.E.3 – Added instruction regarding discarding of supplies and precaution to avoid contamination.
6. Section VIII.G – Specified when to break manufacturer-placed urine container seal.
7. Section VIII.H.2 and 6 - Added instruction to avoid contamination.
8. Section IX.I – Added instruction to place each urine specimen in its own packaging.
9. Section IX.K - Added instruction to ensure upright position of specimens during transit.
10. Section XI – Added Revision History ATL form 1999-04B.

Third Revision Effective Date: 06/14/02.  
Second Revision Effective Date: 06/15/00.  
First Revision Effective Date: 01/18/96.  
First Effective Date: 11/08/94.

**Approved by:**

Signature on File 09/29/06

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Lucille Kaminski-QAC Date

Signature on File 09/29/06

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Richard Sams, PhD Date

Technical Director