



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
KNOXVILLE ENVIRONMENTAL FIELD OFFICE

3711 MIDDLEBROOK PIKE
KNOXVILLE, TENNESSEE 37921-6538
PHONE (865) 594-6035 STATEWIDE 1-888-891-8332 FAX (865) 594-6105

August 31, 2015

Mr. Mark Smith, Sr. Environmental Coordinator
University of Tennessee, Austin Peay Building
916 22nd Street
Knoxville, Tennessee, 37996-3503

CERTIFIED MAIL
7013 3020 0001 2241 6879

RETURN RECEIPT REQUESTED

Re: **Hazardous Waste Compliance Evaluation Inspection**
University of Tennessee, Austin Peay Building
TN0 00 087 9809

Dear Mr. Smith:

On June 4, 2014, the Division of Solid Waste Management (DSWM) conducted a Hazardous Waste Compliance Evaluation Inspection (CEI) at the referenced facility. The inspection was conducted to evaluate the facility's compliance with the Tennessee Hazardous Waste Management Act, T.C.A. §68-212-101 et seq., with the Used Oil Collection Act of 1993 T.C.A. 68-211, Part 10, and with Tennessee's Hazardous Waste Regulations (Division Rule Chapter 0400-12-01) promulgated pursuant to those Acts. The attached Inspection Report details inspection findings. No violations were identified during the inspection.

The DSWM appreciates the courtesy and cooperation shown by University of Tennessee, Austin Peay Building during the inspection. Should you have any questions concerning this report, please do not hesitate to contact me at 865-594-5467 or by email: craig.smith@tn.gov.

Sincerely,

Craig Smith
Environmental Consultant
Division of Solid Waste Management
Knoxville Environmental Field Office

cc: Ashley Holt, DSWM/Nashville
 Lisa Hughey, DSWM/Nashville
 Central File, DSWM/Nashville
 Enforcement Section, DSWM/Nashville
 Knoxville Environmental Field Office File

HAZARDOUS WASTE FOLLOW-UP INSPECTION REPORT

SITE/PHYSICAL LOCATION:

University of Tennessee, Austin Peay Building
916 22nd Street
Knoxville, Tennessee, 37996-3503
TN0 00 087 9809
County: Anderson

PRIMARY CONTACTS:

Stephen Crouch
Sr. Environmental Coordinator
916 22nd Street
Knoxville, Tennessee, 37996-3503
Telephone: 865-974-5084
Email Address:

DATE AND START TIME OF INSPECTION:

Date: August 19, 2015
Time: 9:30 a.m.

INSPECTION PARTICIPANTS:

Stephen Crouch
University of Tennessee, Austin Peay Building
Telephone: 865-974-5084
Email Address: scrouch4@utk.edu

Chuck Payne, Sr. Safety Coordinator
University of Tennessee, Austin Peay Building
Telephone: 865-974-5084
Email Address: jpayne7@utk.edu

April Case, Senior Safety Coordinator
University of Tennessee, Austin Peay Building
Telephone: 865-974-5084
Email Address: acase3@utk.edu

Kimberly Harmon, Administrative Specialist
University of Tennessee, Austin Peay Building
Telephone: 865-974-5084
Email Address: kcox2@utk.edu

Craig Smith, Environmental Consultant
Tennessee Department of Environment and Conservation
Telephone: 865-594-5467
Email Address: craig.smith@tn.gov

REPORT PREPARED BY:

Craig Smith
Division of Solid Waste Management
Knoxville Environmental Field Office
3711 Middlebrook Pike
Knoxville, Tennessee
Telephone: 865-594-5467
Fax: 865-594-6105
Email Address: craig.smith@tn.gov

PURPOSE OF INSPECTION:

This follow-up inspection was conducted to evaluate University of Tennessee, Austin Peay Building's compliance with the applicable requirements of Tennessee's Hazardous Waste Management Act T.C.A. 68-212, Parts 1 and 3, with the Used Oil Collection Act of 1993 T.C.A. 68-211, Part 10, and with the regulations adopted pursuant to those Acts. Inspection findings are based upon site observations, file review, and verbal and written information provided by facility personnel during the inspection (including the identification of all physical locations where wastes are generated and managed by the facility). The facility is encouraged to advise the DSWM of any information in the report or attached letter that the facility deems to be incorrect.

Any such communication should be submitted to the Division within fifteen (15) days following receipt of this report.

FACILITY DESCRIPTION:

University of Tennessee, Austin Peay Building US EPA ID number encompasses four buildings located on the main U.T. campus: Walters Life Sciences (WLF), Hesler Biology (HB), Science and Engineering Research Facility (SERF), and Dabney-Buehler Hall (DBH). These buildings contain numerous research and teaching laboratories for chemistry, biology, and physics, each of which may contain from zero to several accumulation containers for small quantities of hazardous waste. These containers are retrieved regularly, stored in one of two separate 90-day storage rooms, from which they are transported for disposal.

GENERATOR STATUS:

LQG, Universal Waste SQH, Used oil generator

HAZARDOUS WASTE STREAMS GENERATED:

According to the annual hazardous waste stream report from March of 2015, U.T. generated the following hazardous wastes during 2014.

<u>Waste Number/Name</u>	<u>EPA Waste Codes</u>	<u>Lbs Generated in 2014</u>
1) Mixed Lab Waste	P098,D001,D002,D022, F003,F005	8076
2) Waste Organic Solvents	D001,22,18,19,35,39,40, F002,F003	34900
3) Metal Acid Waste	D001,02,05,08,11	11225
4) Waste Flammable Liquid, Corrosive	F003,F005	0
6) Waste Compressed Gas	D001,02,03,U029,U135	69
7) Waste Compressed Gas, Corrosive Oxidizer	D001,02,03	0
8) Waste Mixed Pesticides	D001,D020	0
9) Debris & Various Solid Waste	D004,08,U122,U238	1030
Total		55300

The multiple, varied, irregular, and highly technical processes of each specific waste generated in over one hundred labs, render discussion of specific wastes impractical.

INSPECTION FINDINGS:

Facility Site Observations:

During this inspection, Mr. Crouch escorted me to each laboratory and storage area in which a violation had been observed during the initial inspection on June 4 and 5, 2015. Observations of each container in each lab are found with photographs in Attachments 1 and 2. In sum, all containers alleged to be in violation of closure or labeling rules after the initial inspection, were found either corrected, or upon further investigation, not in violation in the first place (due to not containing hazardous waste).

Facility File Review:

A file review was conducted during the initial inspection on June 4 and 5, 2015; no record-related violations were observed at that time.

VIOLATIONS:

Violation #1 - Rule 0400-12-01-.05(9)(d)1 included by reference at Rule 0400-12-01-.03(4)(c)5(i)(I) states:

A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

Violation #1 Observation:

During the inspection, approximately 22 open hazardous waste accumulation containers (out of many dozen) were observed in various labs. (note: the majority of these containers are kept closed.) See **Table 1**, above, for a summary and comments, and **Attachment 1** for images of these containers.

Required Action/Action Taken:

All open hazardous waste containers observed in the labs during the initial inspection were found closed, removed, or not containing hazardous waste on August 19, 2015 (See Attachment 1).

Violation #2 - Rule 0400-12-01-.03(4)(e)5(i)(II) states that a generator:

Marks his containers either with the words “Hazardous Waste” or with other words that identify the contents of the containers.

Violation #2 Observation:

During the inspection, approximately five (5) unlabeled hazardous waste accumulation containers (out of many dozen) were observed in various labs. (note: the majority of these containers are labeled.) See **Table 1**, above, for a summary and comments, and **Attachment 2** for images of these containers.

Required Action/Action Taken:

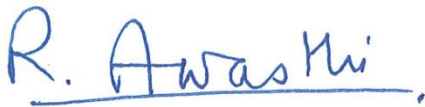
Of the five containers alleged to contain hazardous waste without a ‘hazardous waste’ label, two contained products, one was water, one has been removed, and the final container is labeled “hazardous waste” (See Attachment 2).

Signed  Date 8/28/2015
Craig Smith

Environmental Consultant

Division of Solid Waste Management

Knoxville Environmental Field Office

Approved  Date 8/28/2015

Revendra Awasthi

Environmental Field Office Manager

Division of Solid Waste Management

Knoxville Environmental Field Office

cc: Ashley Holt, DSWM/Nashville
Lisa Hughey, DSWM/Nashville
Central File, DSWM/Nashville
Enforcement Section, DSWM/Nashville
Knoxville Environmental Field Office File

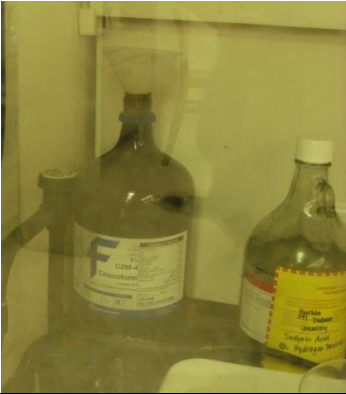
ATTACHMENT 1: ALLEGED OPEN HW CONTAINERS, page 1

DBH – Dabney Buehler Hall
HW – hazardous waste

SERF – Science & Engineering Research Fac.
(parenthetical number) –
photo index from **Table 1**

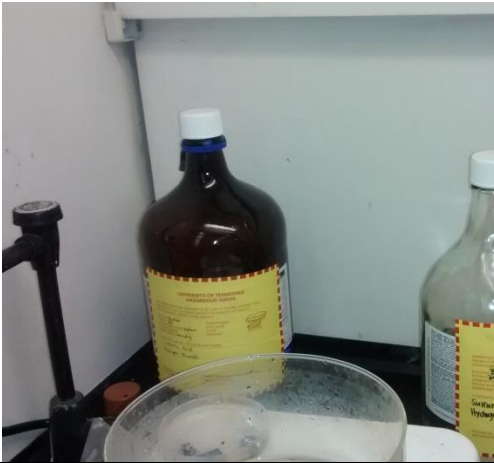
WLS – Walters Life Science

Images from initial inspection, 6/5/15



1. DBH 341 open container (3)	2. DBH 341 open container (4)	3. DBH 352 open container (6)
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Images from follow-up inspection, showing corrections, 8/19/15



1. DBH 341 closed (3)	2. DBH 341 closed container (4)	3. DBH 352 closed container (6)
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ATTACHMENT 1: ALLEGED OPEN HW CONTAINERS, page 2

DBH – Dabney Buehler Hall
HW – hazardous waste

SERF – Science & Engineering Research Fac.
(parenthetical number) –
photo index from **Table 1**

WLS – Walters Life Science

Images from initial inspection, 6/5/15



4 DBH 352 open container (7)	5 DBH 432 open container (9)	6. DBH 458 open container (10)
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Images from follow-up inspection, showing corrections, 8/19/15



4 DBH 352 closed container (7)	5 DBH 432 closed container (9)	6. DBH 458 closed container (10)
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ATTACHMENT 1: ALLEGED OPEN HW CONTAINERS, page 3

DBH – Dabney Buehler Hall
HW – hazardous waste

SERF – Science & Engineering Research Fac.
(parenthetical number) –
photo index from **Table 1**

WLS – Walters Life Science

Images from initial inspection, 6/5/15



7. DBH 458 open containers (11)



8. DBH 459 open container (12)

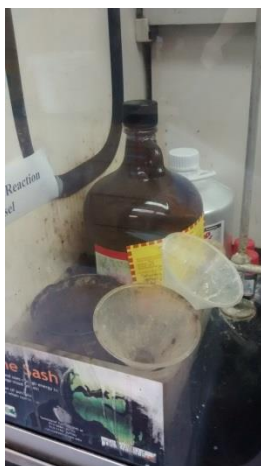


9. DBH 459 open container (13)

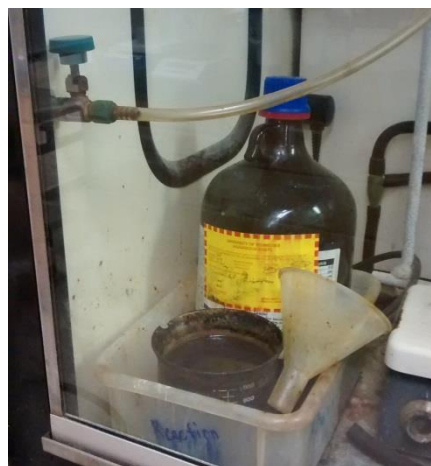
Images from follow-up inspection, showing corrections, 8/19/15



7. DBH 458 closed containers (11)



8. DBH 459 closed container (12)



9. DBH 459 closed container (13)

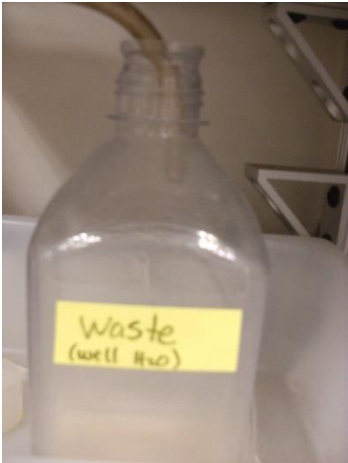
ATTACHMENT 1: ALLEGED OPEN HW CONTAINERS, page 4

DBH – Dabney Buehler Hall
HW – hazardous waste

SERF – Science & Engineering Research Fac.
(parenthetical number) –
photo index from **Table 1**

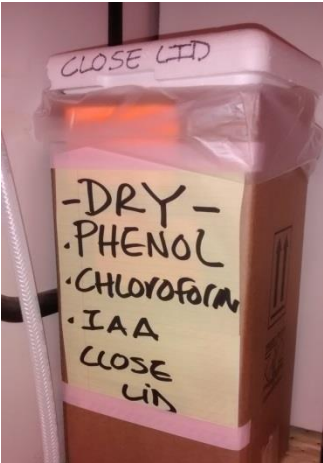
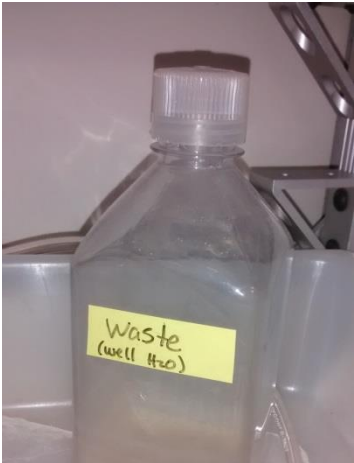
WLS – Walters Life Science

Images from initial inspection, 6/5/15



10. SERF 705 open container (16)	11 SERF 723 open container (17)	12. SERF 723 open container (18)
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Images from follow-up inspection, showing corrections, 8/19/15



10. SERF 705 closed container (16)	11 SERF 723 closed container (17)	12. SERF 723 closed container (18)
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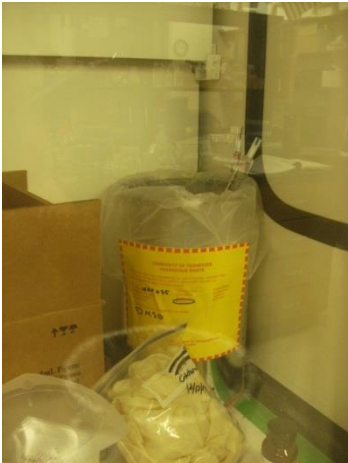
ATTACHMENT 1: ALLEGED OPEN HW CONTAINERS, page 5

DBH – Dabney Buehler Hall
HW – hazardous waste

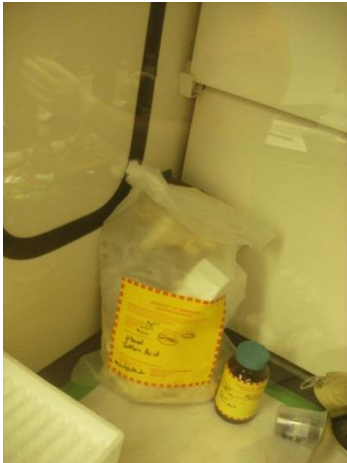
SERF – Science & Engineering Research Fac.
(parenthetical number) –
photo index from **Table 1**

WLS – Walters Life Science

Images from initial inspection, 6/5/15



13. SERF 635 open container (19)



14 SERF 635 open container (20)



15 SERF 634 open container (21)

Images from follow-up inspection, showing corrections, 8/19/15



13. SERF 635 closed container (19)



14 SERF 635 closed container (20)



15 SERF 634 closed container (21)

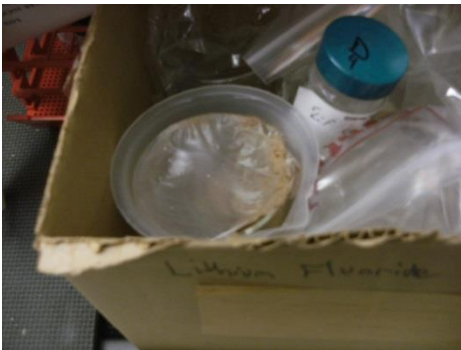
ATTACHMENT 1: ALLEGED OPEN HW CONTAINERS, page 6

DBH – Dabney Buehler Hall
HW – hazardous waste

SERF – Science & Engineering Research Fac.
(parenthetical number) –
photo index from **Table 1**

WLS – Walters Life Science

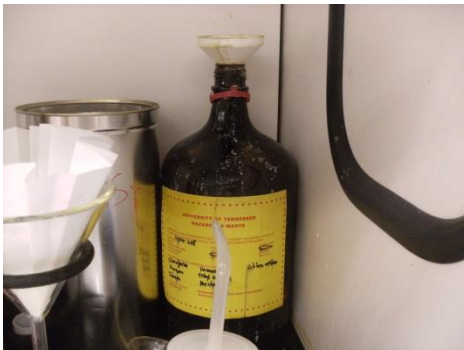
Images from initial inspection, 6/5/15



16. SERF 501 open LiF waste container (22)



17 SERF 319 open container (23)



18. SERF 218 open container (24)

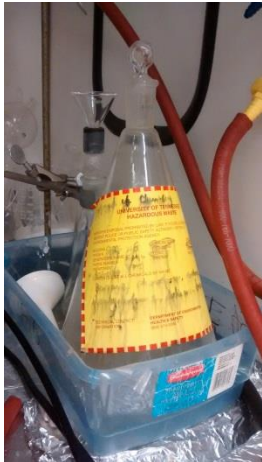
Images from follow-up inspection, showing corrections, 8/19/15



16. SERF 501 waste container removed (22)



17 SERF 319 closed containers (23)



18. SERF 218 closed container (24)

ATTACHMENT 1: ALLEGED OPEN HW CONTAINERS, page 7

DBH – Dabney Buehler Hall
HW – hazardous waste

SERF – Science & Engineering Research Fac.
(parenthetical number) –
photo index from **Table 1**

WLS – Walters Life Science

Images from initial inspection, 6/5/15



19. SERF 218 open container (25)



20. SERF 218 open container (26)



21. HB 217 uncontained HW (29)

Images from follow-up inspection, showing corrections, 8/19/15



19. SERF 218 container removed (25)

20. SERF 218 container removed (26)

21. HB 217 closed HW container(29)

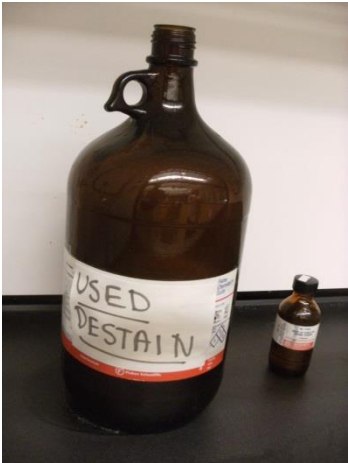
ATTACHMENT 1: ALLEGED OPEN HW CONTAINERS, page 8

DBH – Dabney Buehler Hall
HW – hazardous waste

SERF – Science & Engineering Research Fac.
(parenthetical number) –
photo index from **Table 1**

WLS – Walters Life Science

Images from initial inspection, 6/5/15



22. HB 225 OPEN CONTAINER(30)	23. HB 217 uncontained waste (31)	24. WLS C403 open bags (32)
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Images from follow-up inspection, showing corrections, 8/19/15



22. HB 225 container removed(30)	23. HB 217 uncontained waste (31)	24. WLS C403 open bags (32)
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Initial image

Follow-up image



22. WLS D309 open container, 6/5/15 (33)	22. WLS D309 closed container, 8/19/15
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ATTACHMENT 2: ALLEGED UNLABELED HW CONTAINERS, Page 1

DBH – Dabney Buehler Hall

HW – hazardous waste

(parenthetical number) –
photo index from Table 1

Images from initial inspection, 6/5/15



1. DBH 340, unlabeled container in HW area (1).

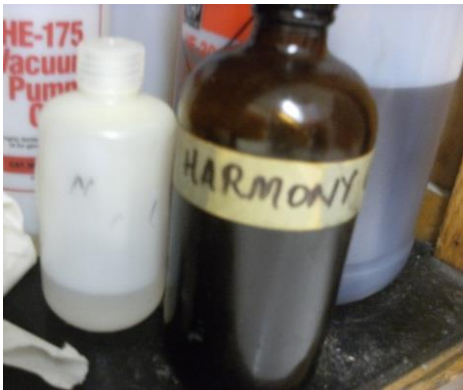
DBH 340, same unlabeled container in HW area (2)

Correction, as observed on 8/19/15

1. DBH 340, This container identified as product, **not waste**.

DBH 340, same **product** container 8/19/15 (2)
This alleged violation is rescinded.

Images from initial inspection, 6/5/15



2. DBH 346, Bottle in HW area not labeled as HW (5)

3. DBH 402 unlabeled container in HW area (8)

Corrections, as observed on 8/19/15

2. DBH 346, this container has been removed, 8/19/15 (5)

3. DBH 402 Container identified as product, **not waste** (8)
This alleged violation is rescinded.

ATTACHMENT 2: ALLEGED UNLABELED HW CONTAINERS, Page 2

DBH – Dabney Buehler Hall

HW – hazardous waste

(parenthetical number) –
photo index from Table 1

Images from initial inspection, 6/5/15



4. DBH 665, unlabeled container in HW area (14).	5. SERF 702, unlabeled container in HW area (15)
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Images from follow-up inspection, showing corrections, 8/19/15



4. DBH 665, container is labeled (14).	5. SERF 702, unlabeled container is NON-Hazardous (15)
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