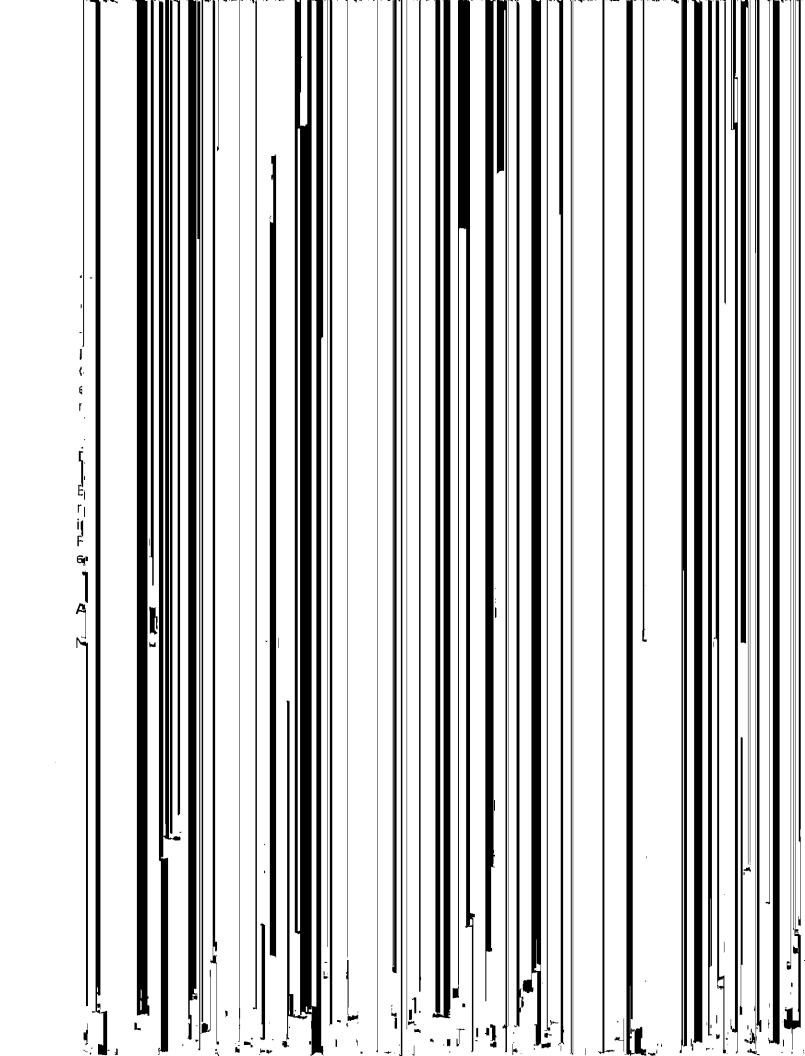
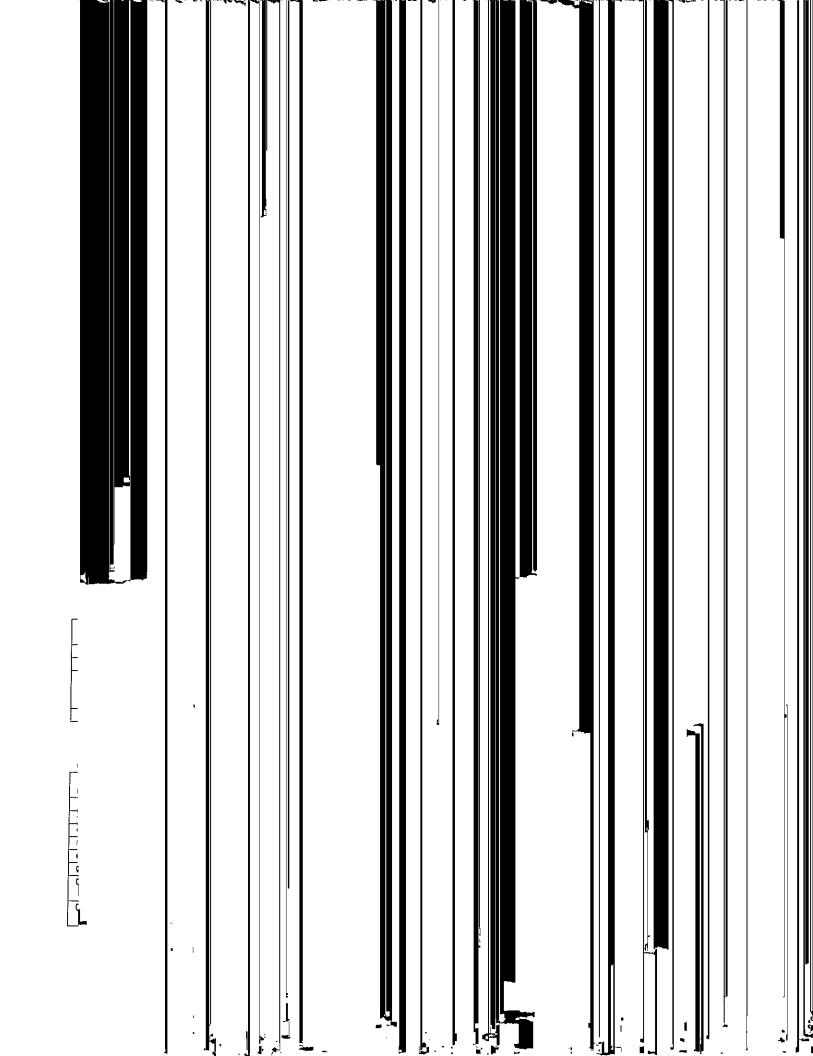


INT SU SAI SAI SAF REC AUL APF→





USE AND STORAGE LOCATIONS

The following facilities are registered for use and storage of chemical, biological, and etiological agents:

- Main campus of 10900 Euclid Avenue, Cleveland, OH
- University Hospitals (UH), 2065 Adelbert Road, Cleveland, OH
- University Circle Research Center II (UCRC II), 11001 Cedar Avenue, Cleveland, OH
- Wolstein Research Building, 2103 Cornell Road, Cleveland, OH
- Louis Stokes Cleveland Veterans Affairs Medical Center, 10701 Wade Park Blvd., Cleveland, OH
- MetroHealth Medical Center, 2500 MetroHealth Dr., Cleveland, OH
- Cleveland Clinic Foundation, 9500 Euclid Ave., Cleveland, OH
- Cleveland Center for Structural Biology (CCSB) Wright Fuel Cell, 1819 E. 101 St., Cleveland, OH

The following premises are registered as generators of infectious waste:

DeGrace (Biology)

Morley Bingham AW Smith Glennan Wickenden Nursing

Nursing CCSB

Wolstein Research Building (WRB)

Millis Olin White Rockefeller Pathology

Med East (Robbins)

Dentistry

Biomedical Research Building (BRB)

The following premises are registered as generators of hazardous waste:

Morley DOA990

University West

Wolstein Research Building (WRB)

CCSB Millis

Cedar Avenue Service Center

SAFETY SERVICES PROGRA

MANAGEMENT

Safety Services provides supp construction concerns. The E chemicals and biological mal hazards to employees. The inspection and audit activities. external agency audits (insural Federal, State, and Local regul

LABORATORY SAFETY COM

The Case Western Reserve Up LSC is comprised of faculty and the safe use of chemical & bioto ensure compliance with all p Waste), DOT, ODH, FDA, CDC

LSC RESPONSIBILITIES

The Laboratory Safety Committ

- Reviewing and recommendi sound risk management prac
- Consulting with faculty on cooperation with the Universit
- Assigning its members, or a and biological safety areas.
- Conducting audits to assess t
- Approving EHS chemical & recommendations.
- Reviewing laboratory activitie;

SUBCOMMITTEES

The Chairpersons of the five su

- Institutional Review Board for
- Institutional Biological Safety
- Institute of Animal Care & Usq
- Carcinogen Use Committee (d
- Select Agent Use Committee

These subcommittees review protocols for safety content, as the information for the exogenc protocol.

PRICHE

LSC

The : voting voting

<u>VOT</u>I

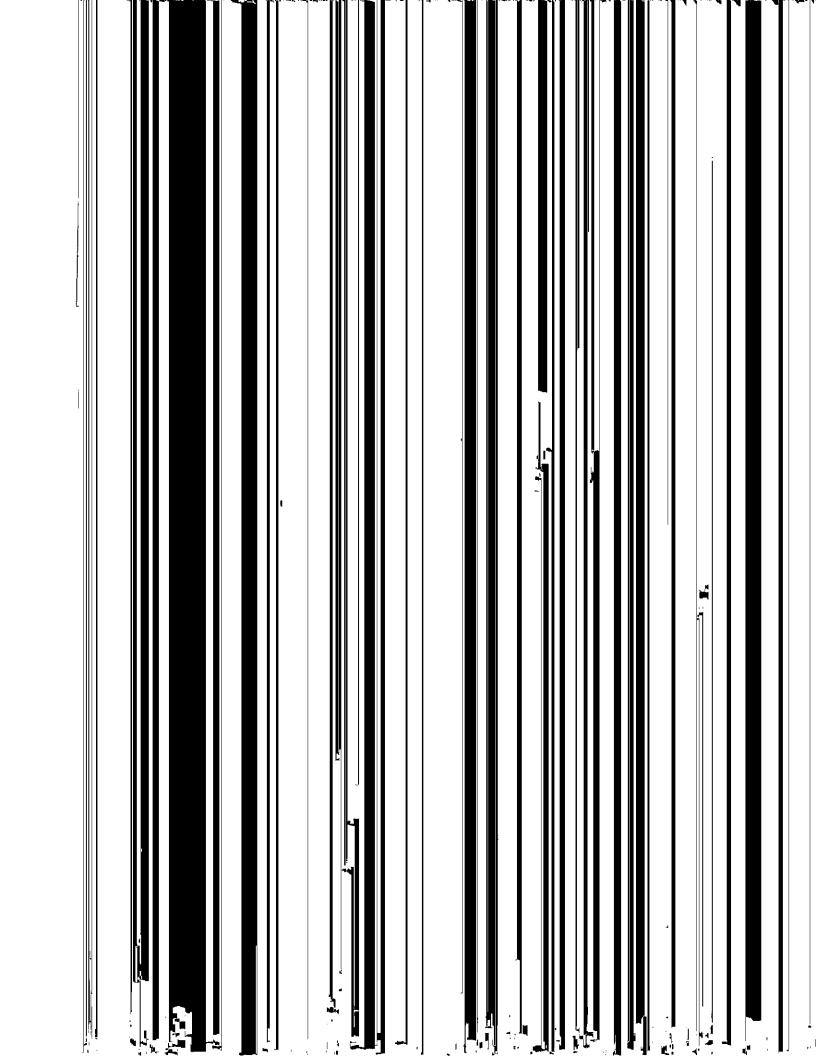
Clive H Associa Dept. o WRB 5 Term E New Te 5/1/201 Chairpe New Te 5/1/201 Fady Fa

Fady Factorial Associal AEGD Dental (Term E:

W. Davi Professi Medicini EHS Ra Service Room 1 New Ter 5/1/2014 Lance V Senior Ir Dept. of Sciences Dental S Term Ex

EX-OF

Chuck Ha Executive Service B



SAFETY SERVICES OFFICE

STAFFING

The SSOF operates with the fo

Director (1)
Department Assistant (1)
Department Administrator (0.5)
Student (1)
Executive Director (0.5)

The new Executive Director p Industrial Hygienist position wa position. It was eliminated due

Safety Services continues to ir response to emergencies and c the Safety Services Program.

EHS EMAIL

The EHS Email (does@case.e inception, the number of inquir University personnel averages improved follow-up of issues remains the control of the control of

Concerns of unethical behave anonymously. They may call They are encouraged to provid concerning the incident.

EHS WEB SITE

The EHS home website (https://department services. Informat manuals are available on-line. illustrates updates made to the services provided on-line by EH?

EHS NEWSLETTER

The EHS Laboratory Safety new laboratory safety issues and daddendums, issues found durifrequently asked by laboratory newsletter included:

The Nandigita and h **EMP**I The E respo Nursir Comm safety comm year Comm ORIE The (
employ
job ex
this pr and staff to for new em individual ba

> ORII New New

7/20 8/20 9/20 10/20 11/20 1/20 2/201 3/201 4/201 5/201 TOT/

TRAINING

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There were including:

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- Check
- Summ
- New N
- Biolog

SPECIFIC T

HAZARD CO

The Hazard Right-To-Knu groups provi-Facilities, Se enter reamaterials

CHEMIC

Several (ARC) ar a daily ba

LABORA

Laborato specialize students, Youth S Summer Polymerie

The Univ SSOF traprogram.

BLOODB

Materials Virus (HI' the Unive required v

BIOLOGI

Extensive course wa

DOT/IAT*F*

Personne Pipeline a Associatio materials defined In

RESPIRATOR TRAIN

Special training sess Facility employees we medical evaluations a employers before enti-

VEHICLE SAFETY T

Vehicle Safety Trainir Training classes for C

FACILITIES SAFETY

Training for Facilities \

- Slips, Trips, and P
- Personal Protectiv
- Confined Space E
- Radiation Safety
- Lockout/ Tag out
- Workplace Cleanl
- Hot Work Permits
- Powered Industria
- Powered Industria Hearing Conserva

These sessions are sessions were develor

CONTRACTOR TRAIL

To ensure that Univer hazardous conditions training programs supp space, hot work, tow m

FACILITIES AND EQL

The University adminis are available and adec The SSOF is also resp facilities and equipment available at the Univers AW Smith
Bishop
Glennan
Kent Hale Smith
Olin
Rockefeller
White
VA Hospital
CCF- Walker
Wolstein Research Buildi.

LABORATORIES

The University Safety Sen laboratory buildings on can Western Reserve University well as offsite locations.

Case Western Reserve Univuse of hazardous material laboratories typically include safety showers (where need changes of air per hour and lare generally constructed to required to stock needed desuch as gloves, laboratory equipment.

SAFETY SERVICES OFFICE

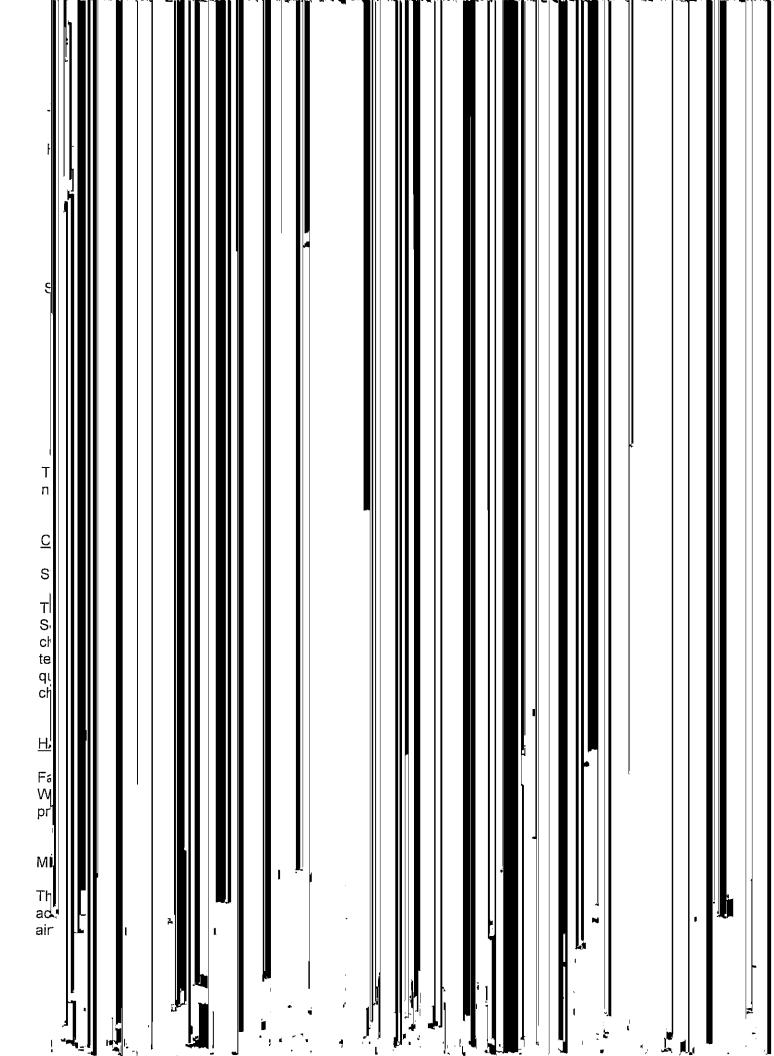
Safety Service's facilities and School (DOA990), Millis Scie

PROGRAM OFFICE:

Service Building (1st Floor)-PI

Up-to-date hardware is crucil Smart Board System augmer demonstrate the use of on-lin library services and campus responses. This room also he

All EHS personal computers backup service is currently u (Aurora) itself is backed up, a periodically backed up onto o



can be referred to the Deans or Provor required. Inspection statistics for 2010/20 Safety problems found during the 2010 i compliance. In 2011, inspections have compliance and resulted in fewer repeat v

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low t ti

SPECIFIC SA

OSHA LABO

The OSHA L programs and

MATERIAL S.

MSDS are av this access to computer terr upwards to 3 greater than chemistry lab compounds sy

CHEMICAL H

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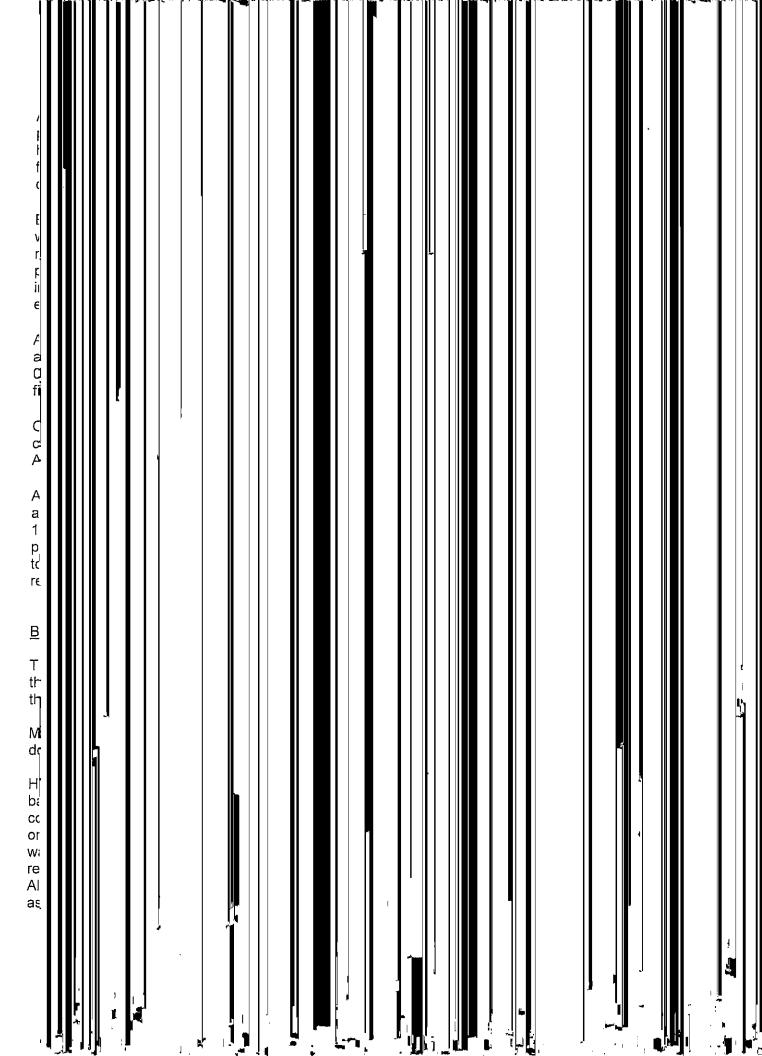
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EHS speci including: I acts continuous rela

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The SSOF DOT/IATA shipping o Departmer packing, la regulated r IATA Shipp originating

Training Gi in May 20 shipment a packages c

INCIDENT/

The Incider handled in involving assignment reestablisher Finally, predepartment

With the los to decrease

EMERGENCY RESPONSE PROGRAM

Following the 911 tragedy in 2001, the Alert System that codes the level of sect from red to orange, the EHS staff incre Conference Room has been designated need arise.

Collaboration with Case Protective Sen County Hazmat in live scenario training response partners to become familiar wit

The EHS coordinated its Fire & Life Safe prospectively meet FM Global Insurar University. Follow up of specific safety c better compliance with each year.

EMERGENCY RESPONSE PLAN

The EHS Emergency Response Plan was Incident/Emergency Management Plan. Cleveland Fire Department, Cleveland Papost 911 security levels and in response full-scale emergency response compatibil plan exercises leading to an emergency regional partners in Police and Fire De Protective Services and the CASE Pc expanded collaborative network that in Heights Police, University Hospitals, and The EHS has also established represen Committee, the Regional Medical Responditudes and Proposed Responditudes Emergency Preparedness Sub-

RESPONSE EQUIPMENT

All emergency response vehicles and regularly. Many of the items are old illustrates equipment that supports respond and supplies kept on hand for these purports.

Other forms of response equipment hav cloth for powder clean up and mercury t Equipment (PPE: goggles, gloves, N95 evaluated for adequacy and the types of response capabilities.

BIOLOGICAL SAFETY

BSL-3 FACILITIES

Currently there are two E molecular and biochemica 2 facility for prion research including HIV and Mycoba year that are using a select

SELECT AGENT PROGR

In the aftermath of Septer protect against bio-terrori Disease Control (CDC) a Health and Human Servi, Register governing facilitie became effective on Febru

A specific Biosafety Com Official (RO) is the Vice P^I Assistant Responsible Off^I Safety Officer (EHS Direct Agent Committee, ABSL3 Compliance Committee, ar sits on the IACUC and IBC

One select agent on campt (72) individuals, involved carried out by the Federal number of persons involve facility yet are not directly a select agent access in the !

- Card swipe entry securit
- A second card swipe sy!
- A third locked location fq

An internal audit of the fill requires that the RO and ultimately responsible.

Each researcher generates annual audit, as do the \$ reviewed and updated.

SELECT AGENT COMMITTEE

The Select Agent Committee is comprised of Selec Officer, the RO and the ARO from EHS, the EHS Facilities, and the ARC Veterinarian. This Comm maintaining regulatory compliance with regard to us within the University and associated facilities. This procedures, and guides researchers in use and dispose

PHYSICAL SAFETY

PHYSICAL SAFETY MANUAL

The Physical Safety Manual is available online. Distriction direct contact with investigators during inspections promotion in the EHS Newsletter. Laboratories that can find many applicable safety recommendations in laboratories should be concerned with physical safety

FACILITY INSPECTIONS

Scheduled building walkthroughs are conducted by leach building, excluding residence halls, is inspect possible safety/building code violations as well as protection/ prevention issues. Ninety buildings were were carried out on an on-call basis before execution result in hazardous exposures.

EHS, in cooperation with Property Management properties annually. The EHS further inspects Under found on properties owned by the University. One Building. City inspectors inspect this UST biyearly. violations as well as fire/life safety hazards and gen correction/ improvements are made as necessary and

REMEDIAL SERVICES

The Safety Specialist incorporates on-site problem states received many calls for help in solving on-site particles on the particles of the safety Specialist incorporates on-site problem states on the safety Specialist incorporates of the safety Specialist incorporates on the safety Specialist in

ERGONOMIC EVALUATIONS

Ergonomic assessments are conducted in response individual office assessments were completed in 20 and suggestions were made on how individuals can

good ergpractices. Departme eyeglasse

HEARING

The Hear services of for this pro

In an atter is address year, but a

LIGHTING

The Safet evaluate I OSHA/AN: quality. No

PLANT SA

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PLANT SA

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PROGRAM

Job Safety EHS is co relevant pla

EXHAUST

There were WRB. All maintenant basis.

CONFINED

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- is lar
- Has vault:
- Is no

OSHA uses instances w serious haz confined sp the moving space) to d health or sa;

The Confine and training outside cont

HOT WORK

OSHA requi EHS adminifrom the SS established of for a certain

The Hot Wo program nov (120) permit contractors. construction requiring hot

CONSTRUC

An EHS rep Construction Construction in the Construction Mar Appendix.

CONTRACTOR OVERS

The Plant Safety Speci projects throughout the Contractors utilized by Carpenters, Plumbers, Roofers. CASE Plant interface between Plac contractors on safety rea

Contractor Safety Awar out construction on CA₁ conducted and this prog

EPA AND WASTE DIS

ENVIRONMENTAL RE

The Northeast Ohio Re Best Management Practine Cleveland sewer sylwere in compliance with January through Decen

Overall, waste collection ability of the Chemical and Perchloric acid resignificant cost savings waste handling complied

A regular audit of all complete before the Hazardous Waste Forn folders on the server. several bottles per pick Log Book for discrepan

TREATED INFECTIOU

Treated Infectious was Certification was first Elements of this dispo Testing of the autocl autoclaving under stan and one week. Grow

process an are kept bo

Quality Ass functioning feet of infe average po Ohio. Heal

INFECTIOL

Healthcare Waste throuwith infection of Regulate 137,437 pour

NON-INFEC

Non-infection BFI) as of incineration. exceed fifty been an aveils fiscal year.

RECYCLING

The Recycli recycling of collected fro

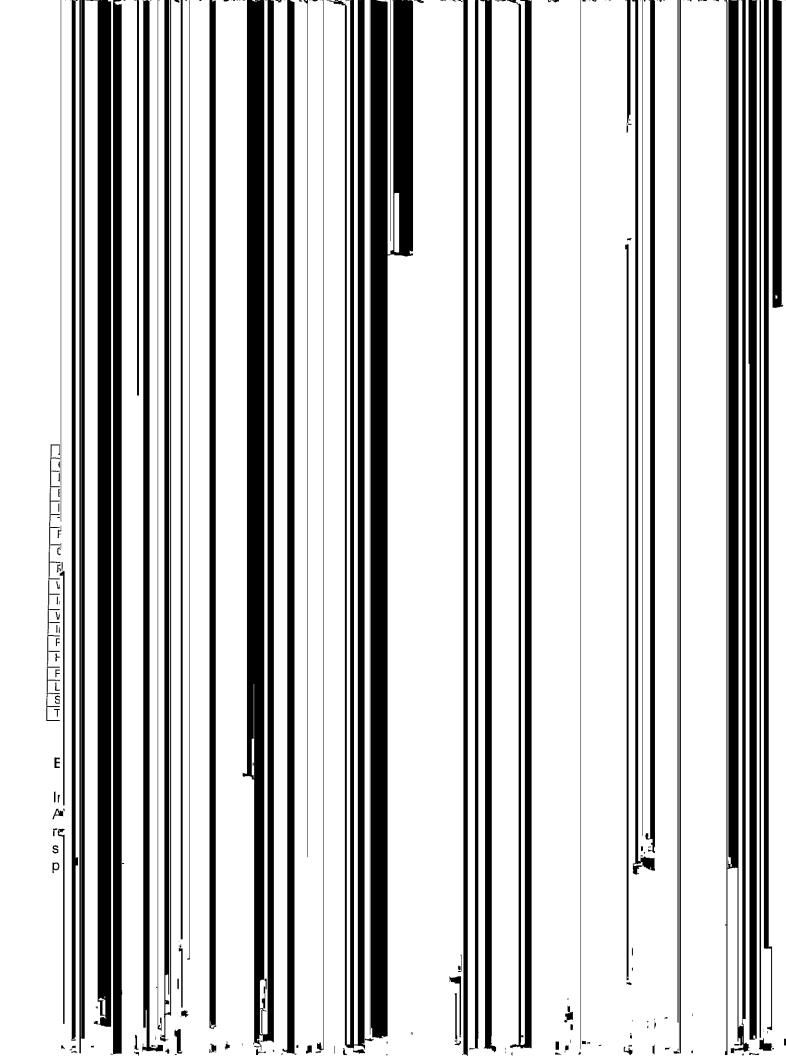
- Lead
- Paint
- Batter
- Comp
- Comp.
- Equip
- Fluore

An average handling the guides the p

WASTE FAC

CASE Wast

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INTERNAL AUDITS

Chemical Hygiene Plans
Training
Biological Safety Cabinets
Hazard Communication Pl
Indoor Air Quality
Clearances
Hazardous Waste
Website Accuracy
Research Protocols
DOT Shipments
Select Agents
Liaison Program
Plant Safety Programs

This year, in responprocedures and progra

MINORS, VOLUNTEE

Comments

- Guidelines were co
- In 2009, 71 volunts
- In 2010, 87 voluntգ
- In 2011, 123 volun-
- All records are cur

2010/2011 INSPECTIC

Comments

- 2009 Inspection re
- 2010 Inspection reg
- 2011 Inspection ref.
- Inspectors contacte
- Repeat violations d
- Due to decrease in

CHEMICAL HYGIENE

Comments

- 103 of 403 Exposure
- 101 of 403 Chemica
- Chemical Hygiene (Human Resources)
- Training of research
- Most plans were upi
- All protocols were ci



APPENDIX

TABLE 1 - Training and confe

- OSHA Respirator Fit
- Biosafety Cabinet Te
- HVAC Systems and I
- ASHRAE 110 Testing
- DOT Certification Co
- Certified Industrial Hy
- NIH Information Se
- CSHEMA Campus
- ABSA American Bic
- Laboratory Safety by
- RCRA Training

TABLE 2 - All staff members r

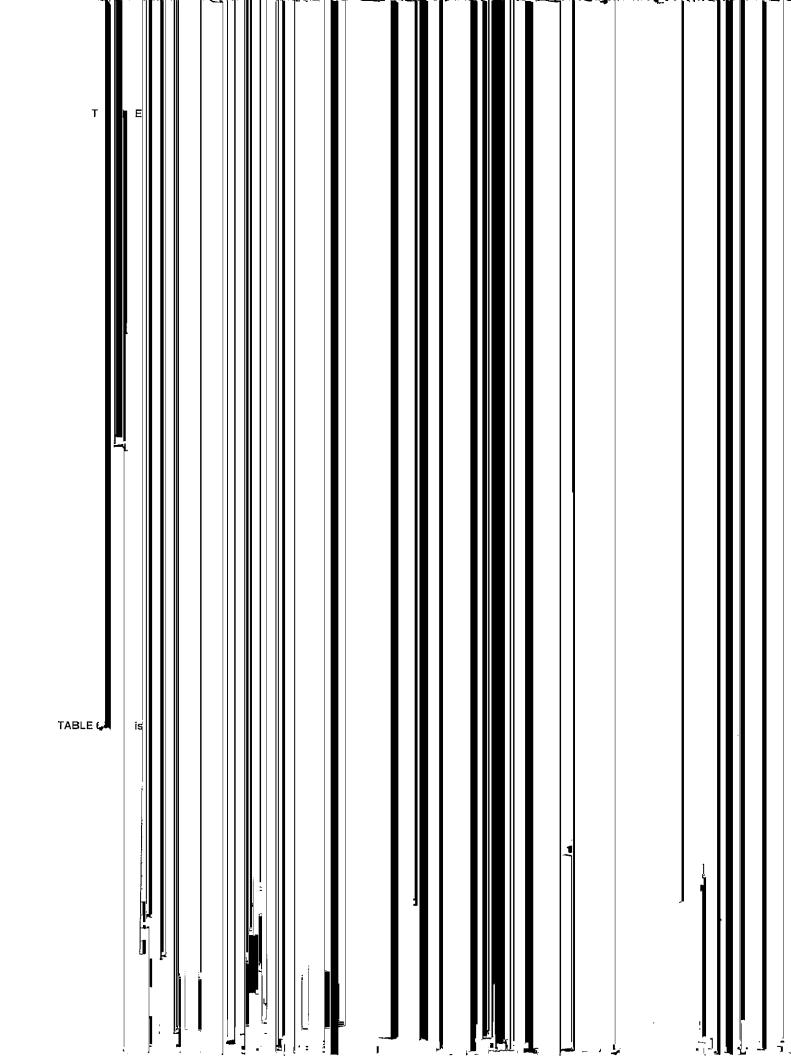
- OSHA 30 hr. Training
- OSHA Hazardous Wa
- OSHA Hazardous Ma
- FEMA Courses 1001
- 8-hour RCRA Hazardo
- The Hazardous Waste
- DOT/iata

TABLE 3 - EHS Web Page Upd

- Baxter Safety Alert
- Triad Alcohol Swabs F
- New MSDS Program
- Machine Guarding
- Check Training Online
- UV Training
- Summer Student Train

TABLE 4 - EHS has provided re

- Newsletters
- Check Training Online .
- Safety Training Update



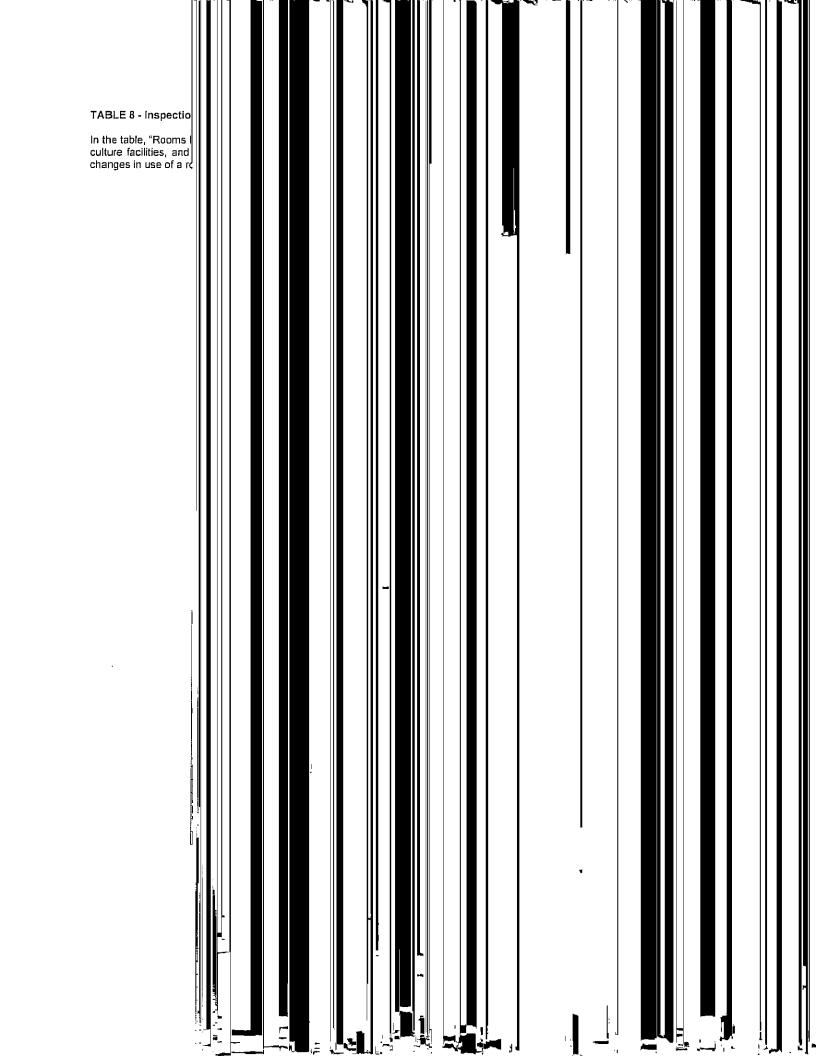


TABLE 9 - Respirator Sti

RESPIRATOR	Ī
USE	I
PHYSICAL	Ī
TRAIN	Ī
FIT TEST	Ī

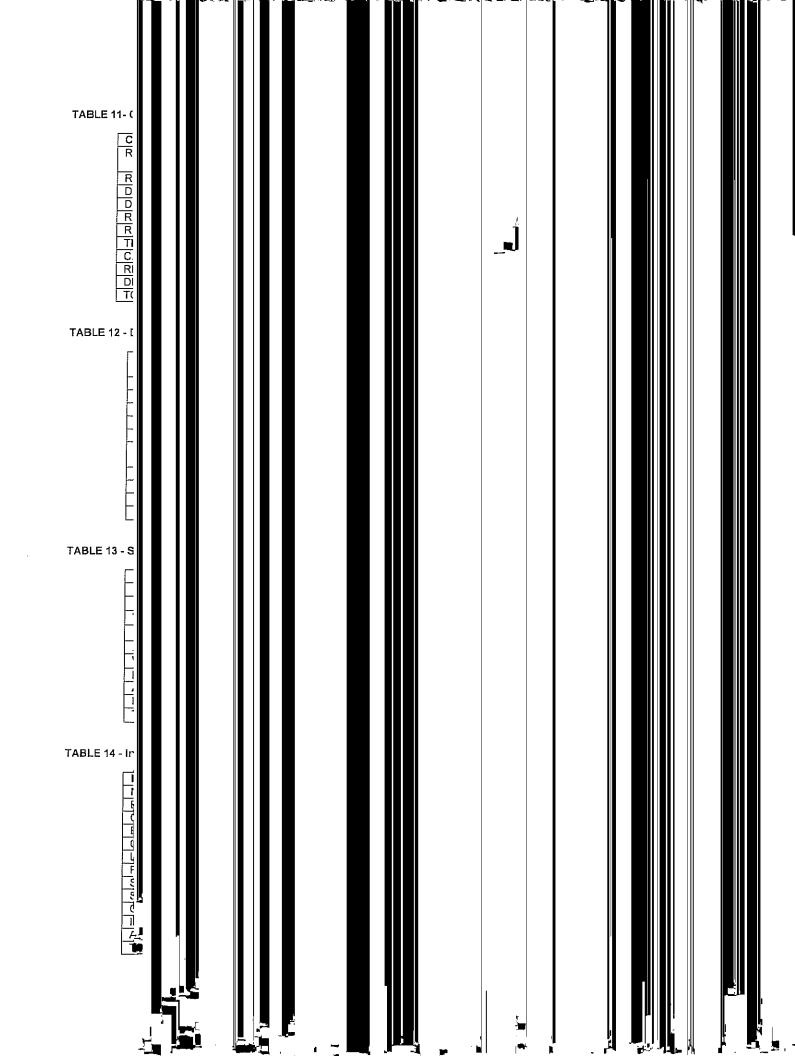
RESPIRATOR	Ţ
TYPE	l
PAPR	Γ
HALF FACE	Г
FULL FACE	Γ
N95	Γ
N/A	Г
TOTAL	Γ

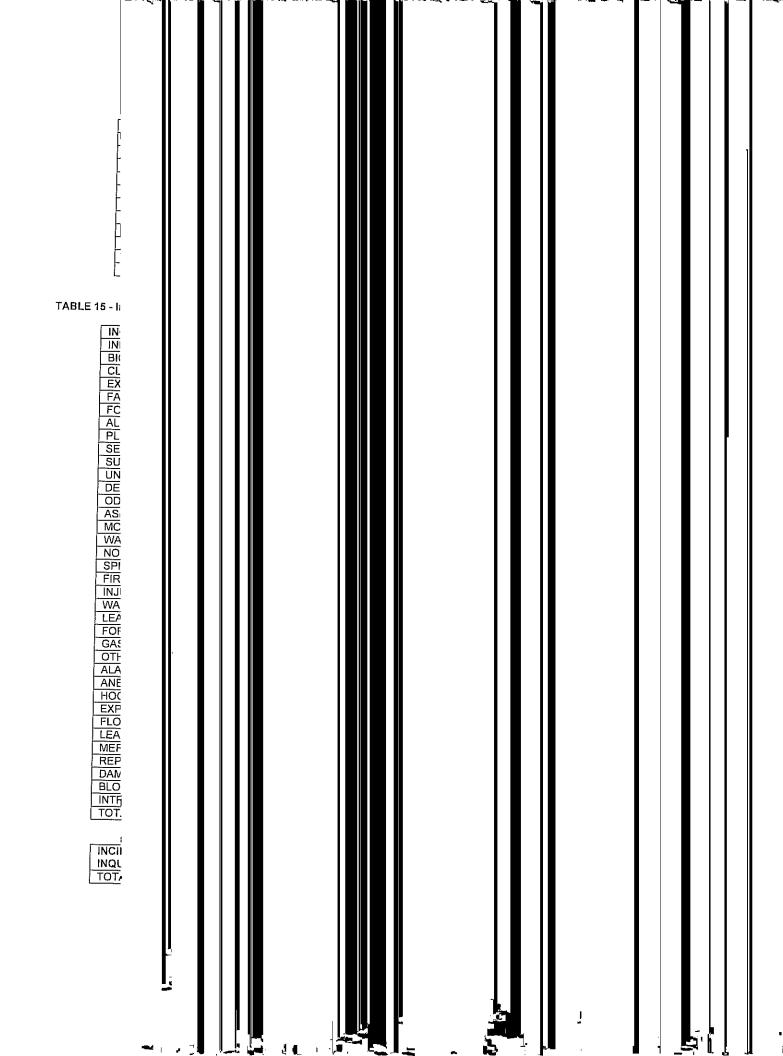
DEPARTMENT	Γ
TERMINATED	
FROM	l
PROGRAM	
ARC	
RESEARCH	Г
CUSTODIAL	
FARM	Г
HEALTH	Г
SVCS.	
SECURITY	7
PLANT	-
EHS	
TOTAL	

TABLE 10- Hood Certifica

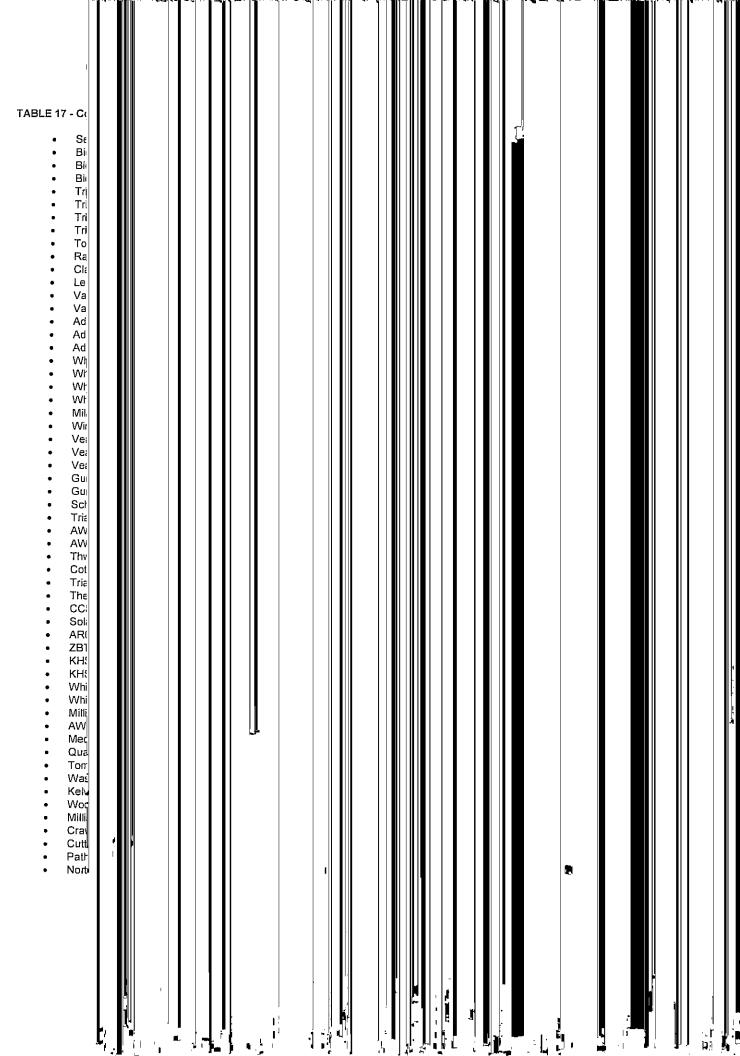
ASHRAE TEST	
PASS	1
RESTRICTED	-
FAILED	Τ,
N/A	7
TOTAL	7

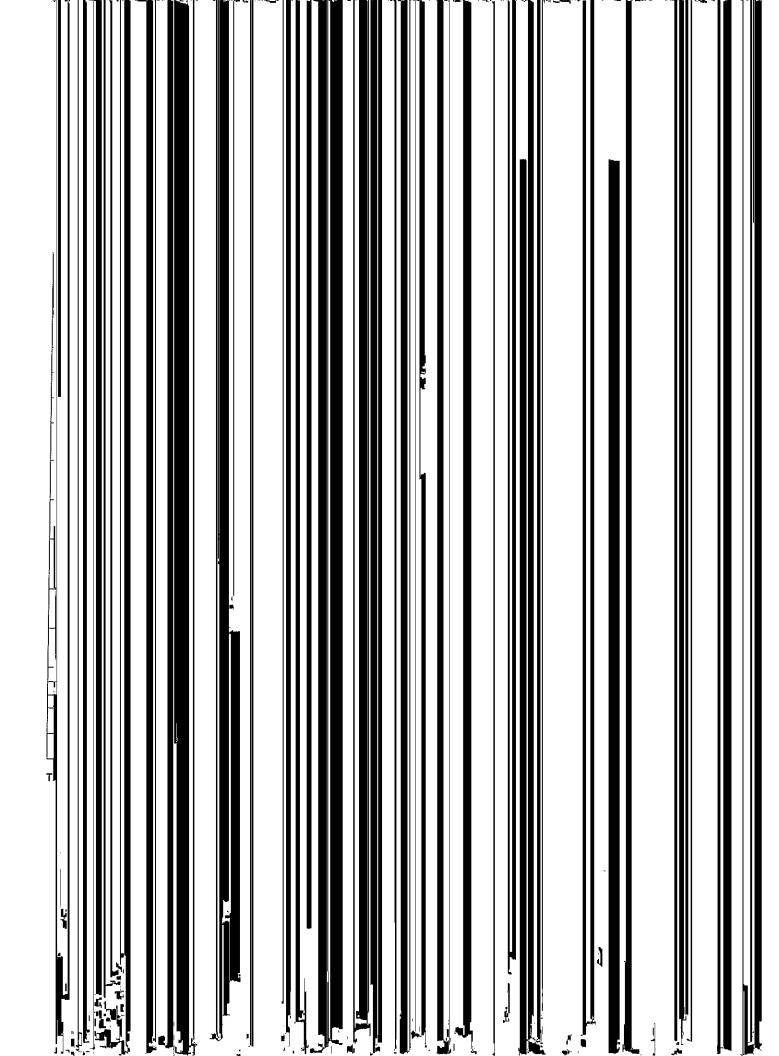
VELOCITY TEST
SATISFACTORY
RESTRICTED
INOPERATIVE
TOTAL





TABLI AN AC Kapple MSA 5 Spill C (4) Mer Spill fill Respire Chemic Hydrop SCBA (Mercur Ampho Biosyst Biosyst Pelton (SPECI/ Gloves Nit Sil[,] Vit Suits (B Ty\ Sai Kaj Foot Pro Туv Тілі Eye Prot Fac Safi Respirate Full







Environmental Health & Safety Organizational Chart

Dick Jamieson VB for Campur