1.2 Environmental Health and Safety

Introduction

This U.S. Immigration and Customs Enforcement (ICE) Family Residential Standard protects residents, staff, volunteers, and contractors from injury and illness by maintaining high Center standards of cleanliness, sanitation, and safe work practices; and by controlling hazardous substances and equipment.

Various terms used in this standard may be defined in ICE Family Residential Standard on *Definitions.*

Program Philosophy

The requirements of this standard must be implemented in accordance with the ICE Family Residential Standard on *Program Philosophy, Goals, and Expected Outcomes.*

A. Language Access and Disability Requirements

Centers will adhere to the language access and disability laws, regulations, responsibilities, requirements, and laws cited in the ICE Family Residential Standard on *Program Philosophy, Goals, and Expected Outcomes* and the ICE Family Residential Standard on *Disability Identification, Assessment, and Accommodation*. These requirements must be promulgated in all Center policies, practices, and operations and its themes must be fully incorporated into every Center activity. This is of critical importance and will directly impact resident life, health, and safety.

Expected Outcomes

The expected outcomes of this standard are as follows (specific requirements are defined in the Expected Practices section in this standard):

1. Centers will maintain high standards for cleanliness and sanitation.
2. Centers will comply with all applicable Federal, State, and local safety and sanitation laws and will document internal and external inspections, and corrective actions when indicated.
3. Centers will comply with all applicable fire safety codes and fire safety performance requirements, will develop evacuation plans, and will conduct safety drills.
4. Centers will comply with fire prevention regulations, inspection requirements, and other practices, including conducting periodic fire drills and ensuring the safety of residents, staff, and visitors.
5. Fire safety and other emergency equipment will be maintained in working condition.
6. Centers will control all flammable, poisonous, toxic, and caustic materials and use them in a safe manner and in accordance to the applicable Safety and Data Sheets (SDS).

7. Centers will require staff to know emergency procedures and responsibilities, including those that require evacuation, in accordance with a written plan and with refresher training conducted at least annually.
8. Centers will have a written plan for the immediate release of residents from locked areas, and provisions for a back-up system.
9. Centers will mark distinctly and permanently a sufficient number of properly positioned emergency exits and keep them clear from obstruction.
10. Centers will perform preventive maintenance and regular inspections to ensure timely emergency repairs or replacement and to prevent dangerous and life-threatening situations.
11. Centers will sanitize all barbering equipment and supplies properly to minimize potential disease transfer.
12. Centers will control and eliminate pests and vermin.
13. Centers' potable water source will be safe.
14. Centers will maintain and periodically test emergency lighting and life-sustaining equipment.
15. Garbage and hazardous waste disposal will comply with applicable government regulations.
16. Centers will provide administrative controls (visual signs/aids) that are readily understood.

Standards Affected

This standard replaces the ICE Family Residential Standard on *Environmental Health and Safety* dated 12/21/2007.

Expected Practices

A. Environmental Health and Safety

1. General Environmental Health

Environmental health conditions will be maintained at a level that meets recognized standards of hygiene, including those from the:

- Occupational Safety and Health Administration (OSHA);
- Environmental Protection Agency (EPA);
- Food and Drug Administration (FDA);
- National Fire Protection Association's (NFPA) Life Safety Code; and
- Centers for Disease Control and Prevention (CDC).

The health services department or equivalent will assist in identifying and correcting conditions at the Center that could adversely impact the health of residents, employees, and visitors. The Center

Administrator, or his or her designee for environmental health is responsible for developing and implementing policies, procedures, and guidelines for the environmental health program that are intended to identify and eliminate or control as necessary any potential sources of injury and modes of transmission of agents or vectors of communicable diseases.

The Center Administrator or his or her designee will:

- Conduct special safety investigations and comprehensive surveys of environmental health conditions; and
- Provide advisory, consultative, inspection, and training services regarding environmental health conditions.

The Health Services Administrator (HSA) or equivalent is responsible for:

- Implementing a program in the medical clinic that assists in maintaining a high level of environmental sanitation; and
- Providing recommendations to the Center Administrator or his or her designee concerning environmental health conditions.

2. Staff and Resident Safety

The Center Administrator or his or her designee will ensure that adequate provisions are made for staff and resident safety, in accordance with these standards and applicable laws.

The ICE Family Residential Standard on *Staff Training* further addresses employee training-related issues. The ICE Family Residential Standard on *Voluntary Work Program* addresses resident training issues for workers. Residents will receive safety instruction as necessary for living and activity area-related assignments, such as working with cleaning products to clean general use areas. General housekeeping is addressed in the ICE Family Residential Standard on *Housekeeping Program.*

Resident living and activity area safety will be emphasized to staff and residents by providing, as noted in these standards, a housekeeping plan.

Toys and related equipment will be included in the housekeeping plan and sanitized nightly. The Center Administrator or his or her environmental health designee will ensure proper standards are met for disinfecting toys, particularly with regard to chemicals used.

3. Pests and Vermin

The Center Administrator or his or her designee will contract with licensed pest-control professionals to perform monthly inspections to identify and eradicate rodents, insects, and other vermin. The contract will include a preventive spraying program for indigenous insects and a provision for callback services as necessary. Doors to the outside should be tight-fitting and door sweeps should be installed to prevent the entry of vermin from outside. Ventilation and other openings where vermin could enter should be covered with appropriate material to prevent such entry.

4. Certification of Center Water Supply

The Center Administrator or his or her environmental health designee must ensure that at least annually, a State laboratory will test samples of drinking and wastewater to ensure compliance with applicable standards. A copy of the testing and safety certification will be maintained onsite.

5. Emergency Electrical Power Generator

At least every two weeks, emergency power generators will be tested for one hour, and the oil, water, hoses, and belts of these generators will be inspected for mechanical readiness to perform in an emergency situation. An emergency power generator that performs self-analysis and load testing will be programmed to ensure the above referenced tests are completed at least once every two weeks for one hour, or in accordance with manufacturer's recommendations and instruction manual.

Technicians will check starting battery voltage, generator voltage, and amperage output at a minimum, and will perform all other necessary checks as well.

The emergency generator also will receive quarterly testing and servicing from an external generator service company (or otherwise in accordance with the manufacturer's instructions). Other emergency equipment and systems will be tested quarterly, and all necessary follow-up repairs or replacement will be performed as soon as feasible.

6. Garbage and Refuse

Garbage and refuse includes all trash, rubbish, and other putrescible and non-putrescible solid waste, except the solid and liquid waste discharged into the Center's sanitary sewer system.

Garbage and refuse will be collected and removed from common areas, including the medical clinic, as often as necessary to maintain sanitary conditions and to avoid creating health hazards.

Centers will comply with all Federal, State, and local environmental regulations and requirements governing methods for handling and disposing of refuse.

B. Hazardous Materials

Every Center will establish a system for storing, issuing, using, and maintaining inventories of and accountability for hazardous materials. The Center program will be supervised by the Center Administrator or his or her designee in accordance with OSHA standards. The effectiveness of any such system depends not only on written policies, procedures, and precautions, but also on adequate supervision and responsible behavior of staff and residents, including following instructions precisely, taking prescribed precautions, and using safety equipment properly.

A list of common flammable, toxic, and caustic substances is included at the end of this standard as Appendix 1.2.A: Common Flammable, Toxic, and Caustic Substances.

1. Staff and Resident Responsibility

Every individual who uses a hazardous substance must:

- Be trained in accordance with OSHA standards, to include using SDS;
- Be knowledgeable about and follow all prescribed precautions;

- Be trained in using, donning, and doffing personal protective equipment prior to use;
- Wear personal protective equipment when indicated; and
- Promptly report hazards or spills to the designated authority.

2. Protective Equipment

Protective eye, face, and other appropriate equipment (such as footwear, gloves, gowns, and/or aprons) is required where a reasonable probability of injury exists. Any person that uses personal protective equipment should receive training in using, donning, and doffing personal protective equipment prior to use. Areas of the Center where such injuries can occur will be marked conspicuously with hazard warning signs.

Eyewash stations will be installed in close proximity to where hazardous materials are used most often, in accordance with OSHA standards. Staff and residents using hazardous materials will be instructed in the eyewash station use.

3. Perpetual Inventories

In each area of the Center where hazardous substances (e.g., flammable, toxic, or caustic) are used or stored, the Centers will maintain a current inventory of the substances used and stored there. Inventory records will be maintained separately for each substance. Entries for each substance will be logged on a separate card (or equivalent) and filed alphabetically by substance. The entries will contain relevant data, including purchase dates and quantities, use dates and quantities, and quantities on hand.

4. Safety Data Sheet Files

Centers will maintain a file of SDS that includes a list of the current hazardous substance storage locations, along with a diagram and legend of these locations. Department heads will be responsible for maintaining a current SDS file for each hazardous substance used in their area.

SDS are produced by manufacturers and provide vital information on individual hazardous substances, including instructions on safe handling, storage, and disposal; prohibited interactions; etc.

Staff and residents will have ready and continuous access to the SDS for the substances with which they are working. Adult residents will use hazardous substances only under direct staff supervision. No resident under 18 years of age will be allowed to work with hazardous substances. Staff and residents who do not read English will not be authorized to work with these materials.

Because changes in SDS occur often and without notice, staff must:

- Review the latest issuance from the manufacturers of the relevant substances;
- Update the SDS files as necessary; and
- Forward any changes to the Maintenance Supervisor, so that the copy is kept current.

5. Master Index

The Maintenance Supervisor or the Center Administrator's other designee will compile:

- A master index of all hazardous substances in the Center and their locations;
- A master file of SDS; and
- A comprehensive, up-to-date list of emergency telephone numbers (fire department, poison control center, etc.).

The Maintenance Supervisor will maintain this information in the safety office (or equivalent) and ensure that a copy is sent to the local fire department.

6. General Guidelines Regarding Hazardous Substances

Issuance. Flammable, caustic, and toxic substances (hazardous substances) will be issued (i.e., drawn from supply points to canisters or dispensed) only under the supervision of the designated staff person.

Amounts. Hazardous substances will be issued in single-day increments (i.e., the amount needed for one day's work).

Supervision. Qualified staff will closely monitor residents working with hazardous substances.

Accountability. Inventory records for a hazardous substance must be kept current before, during, and after each use.

7. Flammable and Combustible Liquids

Any liquid or aerosol labeled "Flammable" or "Combustible" must be stored and used as prescribed on the label required by the Federal Hazardous Substances Act (FHSA).

Lighting fixtures and electrical equipment installed in flammable liquid storage rooms must meet National Electrical Code (NEC) or NFPA 70 requirements in hazardous locations.

Every hazardous material storage room will:

- Be of fire-resistant construction and properly secured;
- Have self-closing fire doors at each opening;
- Be constructed with either a four-inch sill or a four-inch depressed floor; and
- Have a ventilation system (mechanical or gravity flow) that provides at least six air changes per hour, within 12 inches of the floor.

Every storage cabinet will:

- Be constructed according to the applicable code and securely locked at all times;
- Be clear of open passageways, stairways, and other emergency exit areas;
- Be labeled conspicuously: "Flammable—Keep Fire Away"; and
- Contain no more than 60 gallons of Class I or Class II liquids, or no more than 120 gallons of Class III liquids.

Only authorized staff will have access to storage rooms and cabinets.

Any portable container that is not the original shipping container must be designated as an approved safety canister, and must be listed or labeled by a nationally recognized testing laboratory. Each container will bear a legible label that identifies its contents.

Excess liquids will remain in original containers, tightly closed, in the storage room or cabinet.

The SDS will govern use of particular flammable or combustible liquids.

Only authorized staff may dispense flammable and combustible liquids, using acceptable methods for drawing from or transferring these liquids.

Drawing from or transferring any of these liquids into containers indoors is prohibited except:

- Through a closed piping system;
- From a safety can;
- By a device drawing through the top; or
- By gravity, through an approved self-closing system.

An approved grounding and bonding system must be used when liquids are dispensed from drums.

Without exception, cleaning liquids must have a flash point at or above 100 degrees Fahrenheit (e.g., Stoddard solvents, kerosene). Cleaning operations must be in an approved parts-cleaner or dip tank that is fitted with a fusible link lid with a 160-degree Fahrenheit melting-temperature link.

SDS directions will determine the disposal and spill procedures:

- When disposing of excess flammable or combustible liquids; or
- After a chemical spill.

8. Toxic and Caustic Substances

All toxic and caustic materials must be stored in secure areas, in their original containers, and with the manufacturer's label intact on each container.

Only authorized staff will draw/dispense these substances, in accordance with the applicable SDS.

Staff either will return unused amounts to the original container(s) or, under certain circumstances, to another suitable, clearly labeled container within the storage area.

SDS directions will determine the disposal and spill procedures for toxic and caustic materials used in the Center.

9. Poisonous Substances

Poisonous substances or chemicals (e.g., methyl alcohol, sulfuric acid, muriatic acid, caustic soda, or tannic acid) pose a very high (Class I) caustic hazard due to their toxicity.

Methyl Alcohol. Methyl alcohol, variously referred to as wood alcohol and methanol, commonly is found in industrial applications (e.g., shellac thinner, paint solvent, duplicating fluid, solvents for leather cements and dyes, flushing fluid for hydraulic brake systems).

- If ingested, methyl alcohol can cause permanent blindness or death.

- Immediate medical attention is vital any time methyl alcohol poisoning is suspected.
- Staff must directly supervise the use of any product containing methyl alcohol. Products that contain methyl alcohol in highly diluted amounts (e.g., shoe dye) may be issued to residents, but only in the smallest workable quantities.

10. Other Toxic Substances

Permanent antifreeze containing ethylene glycol will be stored in a locked area and dispensed only by authorized staff.

Fluids containing carbon tetrachloride or trichlorochane will be dispensed in small quantities and used under direct staff supervision and will be strictly controlled.

Residents will be permitted to use only nontoxic glues. Glues of every type may contain hazardous chemicals. Toxic glues must be stored in a locked location, for use only by authorized staff. When use of a nontoxic product is not possible, staff must supervise closely all stages of handling.

The use of dyes and cements for leather requires close supervision. Nonflammable types will be used whenever possible.

Resident use of ethyl alcohol, isopropyl alcohol, and other antiseptic products will be under direct staff supervision. To the extent practical, such chemicals will be diluted and issued in small quantities to prevent any injuries or lethal accumulation.

Pesticides not currently approved by EPA, such as DDT and 1080 (sodium fluoroacetate) are prohibited. The Maintenance Supervisor is responsible for purchasing, storing (in a locked area), and dispensing all pesticides used in the Center.

The Maintenance Supervisor or other staff members responsible for herbicides must hold a current State license as a certified private applicator. Persons applying herbicides must wear proper clothing and protective gear.

Lyes may be used only in dye solutions and only under the direct supervision of staff.

11. Labeling Chemicals, Solvents, and Other Hazardous Materials

The Center Administrator or his or her designee will individually assign the following responsibilities associated with the labeling procedure:

- Identifying the nature of potentially hazardous materials adopted for use;
- Overseeing use of properly labeled containers for hazardous materials, including any and all miscellaneous containers into which employees might transfer materials;
- Instructing staff in the meaning of the classification code and the SDS, including the safe handling procedures for each material;
- Working with staff to ensure that containers are labeled properly; and
- Correctly labeling all smaller containers to correspond to the manufacturer-affixed labels on larger shipping containers.

12. Controlled Hazardous Materials

Certain substances require special treatment and careful planning and precautions before use beyond attention to the warning label. These controlled materials are classified according to the type of hazard and the nature of the restrictions imposed for their safe use, as specified in OSHA regulations.

Class I: Industrial Solvents. Industrial solvents and chemicals used as paint thinners, degreasers, and cleaning agents may have toxic properties and low flash points, making them dangerous fire hazards.

Class II: Restricted Materials. Beryllium and its alloys and compounds, and silver solder containing cadmium pose a danger to workers, for whom special precautions must be taken.

Class III: Recognized Carcinogens. OSHA-listed carcinogens are governed by the OSHA regulations provided in 29 CFR 1910.1003-1910.1016.

Although asbestos appears on the OSHA list, it is exempt from the regulation when:

- No asbestos fibers will be released into the air during handling and use; and
- The asbestos consists of firmly bound fibers contained in a product such as a transit pipe, wallboard, or tile (except when being sawed or otherwise handled in a way that releases fibers into the air).

Class IV: Suspected Carcinogenic, Teratogenic, and Mutagenic Materials. Chemical agents, substances, mixtures, and exposures are listed in the biennial Report on Carcinogens issued by the National Institutes of Health, National Toxicology Program, in accordance with the U.S. Public Health Service Act. The chemical control staff will ensure that the Center has and complies with the provisions of the latest edition.

C. Fire Prevention and Control

1. Fire Safety Codes

Every Center will comply with standards and regulations issued by:

- EPA;
- OSHA;
- Local and National Fire Codes (NFCs); and
- Applicable standards of the American Society for Testing and Materials (ASTM), American National Standards Institute (ANSI), and Underwriters' Laboratories (UL) or Factory Mutual Engineering Corporation.

New construction, alterations, and renovations will comply with:

- The latest revision or update of the International Code Council (ICC);
- The latest revision or update of the Building Officials and Code Administrators National Building Code (issued by Building Officials and Code Administrators International);
- The Uniform Building Code (UBC); or

- The Standard Building Code, in accordance with 40 U.S.C § 619 and local law.

If the local government does not mandate adherence to a particular code, then construction must conform to the International Council Codes.

In addition, construction will comply with the latest edition of the NFPA's 101, Life Safety Code and NFCs. If the fire protection and life safety requirements of a local building code differ from NFPA 101 or the NFCs, then the requirements of NFPA 101 and the NFCs will take precedence and be recognized as equivalent to those of the local building code.

2. Inspections

Supervisors trained in fire safety will conduct weekly fire and safety inspections.

Safety staff will conduct monthly inspections. A medical staff member will serve either as a consultant or participant on the Center safety committee.

Written reports of the inspections will be forwarded to the Center Administrator or his or her designee for review and, if necessary, corrective action determinations. Designated staff will maintain inspection reports and records of corrective action in the safety office. Fire safety deficiencies will be addressed promptly.

3. Fire Prevention, Control, and Evacuation Plan

Centers will develop a written fire prevention, control, and evacuation plan that includes the following:

- Control of ignition sources;
- Control of combustible and flammable fuel load sources;
- Provisions for occupant protection from fire and smoke;
- Inspection, testing, and maintenance of fire protection equipment, in accordance with NFPA codes, etc.;
- Monthly fire inspections;
- Fire protection equipment installed throughout the Center, in accordance with NFPA 101, Standard for Portable Fire Extinguishers;
- Accessible, current floor plans (including all buildings and rooms); prominently posted evacuation maps/plans; and exit signs and directional arrows for traffic flow, with a copy of each revision filed with the local fire department; and
- Exit diagrams that will be posted conspicuously throughout the Center.

4. Fire Drills

Monthly fire drills will be conducted and documented.

Fire drills in living and activity areas, medical clinics, and other areas occupied or staffed during non-working hours will be timed so that employees on each shift participate in an annual drill.

Residents will be evacuated during fire drills, except:

- In areas where security would be jeopardized;
- In medical areas where patient health could be jeopardized; or
- In individual cases when evacuation of patients or residents is not logistically feasible.

Staff will simulate drills in areas where residents are not evacuated.

Emergency-key drills will be included in each fire drill, and timed. Emergency keys will be drawn and used by the appropriate staff to unlock one set of emergency exit doors not in daily use.

NFPA recommends a limit of 4-1/2 minutes for drawing keys and unlocking emergency doors. However, when conducting fire drills, emphasis will be placed on safe and orderly evacuation rather than speed.

5. Exit Diagram

In addition to a general area diagram, the following information must be posted on emergency exit diagrams:

- Instructions in English, Spanish, and the next most prevalent language at the Center;
- "You are here" markers on exit maps;
- Emergency equipment locations; and
- Outdoor emergency assembly area.

"Areas of Safe Refuge" will be identified and explained on diagrams. Diagram posting will be in accordance with applicable fire safety regulations of the jurisdiction.

D. Medical Operation

1. Needles and Other Sharp Objects

A mandatory, uniform procedure will be established for the safe handling and disposal of used needles and other potentially sharp objects (sharps) to prevent both mechanical injury and the percutaneous transmission of infectious disease organisms, such as the hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Sharps are defined as all disposable or discarded items derived from resident care that potentially could transmit disease via direct subdermal inoculation. Items included are hypodermic needles and syringes, scalpel blades, glass vials or ampules containing materials deemed to be infectious, burrs, glass cartridges, and lancets.

Accidental injuries from sharps are common in health care programs; most are from needle sticks caused by staff attempting to recap hypodermic needles. A uniform procedure for used needles and other disposable sharps is necessary to reduce the number of such injuries by preventing the secondary handling of needles and other dangerous sharps used in the delivery of health care.

2. Standard Precautions (includes "Universal Precautions")

Staff will routinely practice standard precautions. Staff will wash their hands frequently and take additional routine precautions to prevent contact with blood or other body fluids.

Gloves, preferably non-powdered nitrile gloves, will be worn prior to touching blood and body fluids, mucous membranes, or non-intact skin of all patients; prior to handling items or surfaces soiled with blood or body fluids; and prior to performing venipuncture and other vascular access procedures.

Gloves will be changed after contact with each resident.

Masks and protective eyewear or face shields will be worn during procedures that are likely to generate droplets of blood or other body fluids, to prevent exposure of mucous membranes of the mouth, nose, or eyes.

Non-permeable gowns and/or aprons will be worn during procedures that are likely to generate splashes of blood or other body fluids.

Hands and other skin surfaces will be washed immediately and thoroughly if contaminated with blood or other body fluids. Hands will be washed immediately after gloves are removed.

All health care workers will take precautions to prevent injuries caused by needles, scalpels, and other sharp instruments or devices during procedures, especially at the following times: when cleaning used instruments, during disposal of used needles, and when handling sharp instruments after procedures. Instruments and drugs will be maintained in a secure and sanitary condition.

To prevent needle-stick injuries, needles will not be recapped, purposely bent or broken, removed from disposable syringes, or otherwise manipulated by hand. After use, disposable syringes and needles, scalpel blades, and other sharp items will be placed in puncture-resistant containers for disposal.

Large-bore reusable needles will be placed in a puncture-resistant container for transport to the reprocessing area.

To minimize the need for emergency mouth-to-mouth resuscitation, mouthpieces, resuscitation bags, or other ventilation devices will be available for use in areas in which the need for resuscitation is foreseeable.

Health care workers who have exudative lesions or weeping dermatitis will refrain from all direct patient care and from handling patient care equipment until the condition resolves.

Pregnant health care workers will adhere strictly to precautions to minimize the risk to the fetus of perinatal transmission of HIV.

Isolation precautions will be used as necessary if associated conditions, such as infectious diarrhea or tuberculosis, are diagnosed or suspected.

Staff will encourage residents to wash their hands frequently and to take additional routine precautions to prevent contact with blood or other body fluids.

3. Accidental Needle Sticks

Any employee or resident who receives a needle stick or who is cut while handling potentially contaminated sharps will be counseled regarding baseline testing for HBV and HIV, and referred to his/her usual source of health care. If the injury also involves a person who is a known source of possible infection, then that person also will be tested for HBV and HIV. The incident will be

reported as an occupational injury and documented in accordance with OSHA Injury and Illness Recordkeeping and Reporting Requirements. Should the affected staff be a Federal employee, the incident also will be documented in accordance with current applicable policy, procedures, and regulations.

The leading health service provider's exposure-control plan will be followed in the event of a needle stick.

4. Perpetual Inventory

A perpetual inventory will be kept of medical items that pose a security risk, such as sharp instruments, syringes, needles, and medical scissors. The inventory will be audited weekly by the staff designated by the HSA or equivalent to ensure proper accounting.

5. Handling

Without removing the needles or replacing the needle covers, staff will place used (disposable) syringes in a plastic, puncture-resistant disposal box or container.

Disposal Containers. Use only commercially available, biohazardous-waste sharps containers approved by the National Institute of Safety and Health (e.g., a "Winfield Sharps Container").

Do not use milk cartons or plastic milk jugs or other plastic containers of similar thickness.

Use containers with a two-gallon capacity (approximate).

Under no circumstances will an item be removed from the sharps container.

Location. Sharps containers will be located on top of counters or, if on the wall, at least five feet above ground. Sharps containers will never sit on the floor.

Disposal. When the disposal box is one-half to two-thirds full, the lid will be closed and locked, and tape will be placed over the top of the lid to indicate that it is ready for disposal. The sharps container will be labeled with the words "infectious waste" or with the universal biohazard symbol, and placed in the proper area for removal and disposal.

Sharps are considered infectious waste, and final disposal of the sharps container and contents will be through a commercial contractor that handles disposal of infectious waste in accordance with all local and Federal regulations.

The HSA will make arrangements for disposal with an approved contractor and is responsible for validating that the contractor's disposal methods are in accordance with all infectious and hazardous waste disposal laws and regulations.

Arrangements will be made with local hospitals, when possible, for disposal with the hospitals' own infectious waste.

6. Environmental Health in Medical Operations

While many of the following considerations, precautions, and specific procedures apply to situations that typically arise in medical operations, in many cases they have general application to all Center operations.

General Housekeeping. Environmental cleanliness will reduce, control, and prevent nosocomial infections due to contaminated environmental surfaces. The Center Administrator or his or her designee, in coordination with the HSA or designee, is responsible for ensuring the cleanliness of the medical unit.

The Center Administrator or his or her designee will develop a housekeeping plan that will include a daily, weekly, and monthly cleaning, disinfection, and inspection schedule using an acceptable health agency standard as a model. The medical unit housekeeping plan should address routine and terminal cleaning and disinfection of all areas, surfaces, and floors of the medical clinic, including, but not limited to, waiting areas, exam rooms, medical housing, and isolation rooms. The medical unit housekeeping plan shall establish:

- The cleaning equipment, cleansers, disinfectants, and detergents to be used;
- The methods of cleaning; and
- The frequency of cleaning and inspections.

The HSA or designee will make a daily visual inspection of the medical unit, noting the condition of floors, walls, windows, horizontal surfaces, and equipment. The HSA will report deficiencies to the Center Administrator or his or her designee).

All surfaces touched by residents or staff will be cleaned using fresh solutions of appropriate disinfectant products, applied with clean cloths, mops, or wipes. Cleaned surfaces need not be monitored microbiologically since the results of such tests have been shown not to correlate with infection risk. Floors, walls, beds, tables, and other surfaces that usually come in contact with intact skin require low-level disinfection.

Horizontal surfaces in resident care areas are cleaned on a regular basis, and when soiling or spills occur. Additionally, short-stay living and activity areas are cleaned daily and when a resident is discharged. Cleaning of walls, blinds, or curtains is required only when visibly soiled.

The Center Administrator (or designee) is responsible for training all staff and residents in using proper housekeeping procedures and proper handling of hazardous materials and chemicals.

General Cleaning

- All horizontal surfaces will be damp dusted daily with an approved germicidal solution.
- Windows, window frames, and windowsills will be cleaned on a regular schedule, but do not require daily cleaning.
- Furniture and fixtures will be cleaned daily.
- Floors will be mopped daily and when soiled using the double bucket mopping technique. The cleaning solution will be a hospital disinfectant-detergent solution mixed according to the manufacturer's directions. A clean mop head will be used each time the floors are mopped.

- Waste containers will weigh less than 50 lbs., be nonporous, and be lined with plastic bags. The liner will be changed daily
- The container itself will be washed at least weekly, or as needed when it becomes soiled.
- Cubicle curtains will be laundered monthly or during terminal cleaning following treatment of an infectious patient.

Isolation Cleaning. In Centers with medical housing beds, including isolation rooms, medical housing rooms should be cleaned and disinfected at least daily. The following will be adhered to after each use:

- An approved germicidal detergent solution will be prepared freshly in accordance with the manufacturer's specifications for each cleaning;
- After cleaning the isolation room, mops and cleaning cloths will be laundered before being reused;
- Dirty water and used disinfecting solutions will be discarded and the buckets and basins disinfected before being refilled. Items used in cleaning a contaminated isolation room will never be taken into another area;
- Linens will be removed from the bed carefully and double-bagged for transport; and
- All waste materials will be double-bagged and disposed of as contaminated waste.

Terminal Cleaning

- Every item in the room must be cleaned with an approved hospital germicidal solution.
- When applicable, linen will be stripped from the bed, with care taken not to shake the linen. Linen will be folded away from the person and folded inward into a bundle, then removed with minimal agitation.
- When applicable, all reusable receptacles (e.g., drainage bottles, urinals, bedpans, water pitchers) will be emptied and rinsed with germicidal solutions.
- All equipment that is not to be discarded (e.g., IV poles, respirators, suction machines) will be washed with an approved germicidal solution following manufacturer's guidelines for cleaning the specific piece of equipment.
- When applicable, mattresses and pillows covered with durable plastic covers will be washed thoroughly with the approved germicidal solution.
- When applicable, beds will be washed thoroughly, using a small brush soaked in germicidal solution to gain access to small holes and crevices, to areas between the springs, and to the casters.
- All furniture will be washed with a germicidal detergent solution. Use a small brush if necessary. Outside and underside as well as legs and casters also must be washed.

- Wastebaskets will be washed thoroughly with a germicidal solution after trash and liner have been removed.
- Telephones will be cleaned thoroughly with a clean cloth soaked in the germicidal solution. The earpiece and mouthpiece will be unscrewed, scrubbed, dried, and replaced.
- Walls and ceilings need not be washed entirely, but areas that are soiled will be washed with germicidal solution.

Choosing Disinfecting Materials

- Hospital-grade disinfectant detergent formulations registered by EPA may be used for environmental surface cleaning, but the physical removal of microorganisms by scrubbing is as imperative as any antimicrobial effect of the cleaning agent used.
- Cost, safety, and acceptance by staff will be the criteria for selecting any such registered agent. The manufacturer's instructions for use will be followed exactly.

Blood and Body Fluid Cleanup. Spills of blood and body fluids will be cleaned up and the surface decontaminated in such a manner as to minimize the possibility of workers becoming exposed to infectious organisms, including HIV and HBV. A suitable cleanup kit will be maintained for use in cases of spills of blood and body fluids.

Cleanup kits may be obtained from commercial sources, or may be compiled by health services department staff, or the Center safety manager.

Compiling a Cleanup Kit. To prepare a cleanup kit for blood and body fluid spills, package the following materials in a 12 x 15-inch clear zip-locked bag:

- Gloves, rubber or vinyl, household-type (2 pair);
- Clean absorbent rags (4);
- Absorbent paper towels (15);
- Disposable bag marked "Contaminated" size 23x10x39 inches, minimum thickness 1.5 millimeters;
- Clear plastic bag 13x10x39 inches, minimum thickness 1.5 millimeters; and
- Bottle of "hospital disinfectant" (containing quaternary ammonium chlorides in at least 0.8-percent dilution), or a bottle of household bleach such as "Clorox" or "Purex" (5.25-percent sodium hypochlorite).

Using a Cleanup Kit

- Open the bag and remove the supplies.
- Put on one pair of gloves.
- Depending on the type of disinfectant in the kit, take out the bottle of "hospital disinfectant," or prepare a dilute solution of sodium hypochlorite. To prepare a 1:10

dilution of 5.25-percent sodium hypochlorite, mix 1 part of 5.25-percent sodium hypochlorite (common household bleach) with 10 parts water.

- Open the large clear plastic bag and the large bag marked "Contaminated." Place them next to each other.
- Use paper towels to absorb as much of the spilled fluid as possible; then place soiled paper towels in the large clear plastic bag.
- Pour the solution carefully onto the spill area. Dispose of the empty bottle in the large clear plastic bag. Leave disinfectant in place for 15 minutes.
- Use the rags to clean the area, and place rags in the large clear plastic bag.
- Tie off the clear plastic bag and place it inside the large plastic bag marked "Contaminated."
- Remove gloves carefully and place them in the plastic bag marked "Contaminated."
- Put on the second pair of gloves and tie the "Contaminated" trash bag closed.
- Properly dispose of the "Contaminated" trash bag in a contaminated-waste receptacle.
- Properly dispose of the second pair of gloves in the contaminated-waste receptacle.
- Wash your hands.
- Prepare a new cleanup kit.
- NOTE: Do not place linen or non-disposable articles in the "Contaminated" trash bag.

Selecting Disinfectants

- Dilute solutions of sodium hypochlorite are reported extremely effective against both HIV and HBV and, therefore, have been recommended for use in environmental decontamination procedures. Quaternary ammonium compounds are less effective against HBV. Chlorine in solution inactivates viruses quickly and efficiently, but must reach the virus particles to do so.
- Proteinaceous materials may interfere with the ability of the appropriate disinfectant solution to reach the virus particles. Since quaternary disinfecting compounds may act as a detergent as well as a disinfectant, these compounds may be used for cleaning and removal of proteinaceous materials from surfaces. However, when using such a compound to clean a surface, it will be necessary to follow with the use of chlorine solution for final disinfection.
- Most blood or body fluids will be removed from the surface during routine medical cleaning procedures before application of the disinfectant; in such cases, use of sodium hypochlorite solution will be sufficient.

Selecting Gloves

- Household or industrial rubber gloves are recommended for use rather than surgical rubber gloves, as surgical gloves are somewhat porous and are less resistant to mechanical damage and punctures during cleanup procedures.

Assigning Cleaning Duties to Residents in Medical Centers. Resident workers may be assigned duties cleaning the medical unit. Residents are permitted to clean floors and walls and to remove trash, but are not permitted to clean medical equipment.

Hazardous and Infectious Waste Disposal. Infectious and hazardous waste generated at a medical unit will be stored and disposed of safely and in accordance with all applicable Federal and State regulations. The HSA will develop procedures regarding hazardous or infectious waste sanitation. The Center Administrator or his or her designee is responsible for incorporating these procedures into the Center housekeeping plan.

For identified wastes that represent sufficient risk of causing infection or injury during handling and disposal, the following precautions will be applied.

Definitions

- Hazardous or infectious waste is defined as: microbiology laboratory waste; human blood and blood products; sharps (as defined in the Medical Operation and Environmental Health in Medical Operations sections in this standard); laboratory and other chemicals; or certain drugs such as antineoplastic.
- Miscellaneous biomedical waste is defined as waste materials that are not defined specifically as infectious waste.
- Such waste includes bandages, dressings, casts, catheters, and disposable pads.
- Waste from residents in isolation is not considered to be infectious waste unless it falls within the specific definition of infectious waste as stated above.

Collection and Storage. Infectious waste must be separated from the general waste stream and clearly labeled as infectious, adhering to the following practices:

- Infectious waste will be double-bagged, tied, and labeled “Infectious Waste.”
- The bags used must be impermeable, commercially supplied red bags intended specifically for biohazardous waste storage.
- Miscellaneous biomedical waste will be double-bagged and tied but need not be labeled as infectious.

Treatment and Disposal

- Infectious fluids, such as blood products and designated body fluids, will be poured slowly and carefully down a toilet to prevent splash. Compacting of untreated infectious waste is prohibited. The waste disposal contractor must meet all State and local requirements for transportation and disposal.

E. Barber Operations

Sanitation in barber operations is imperative because of the possible transfer of diseases through direct contact or by towels, combs, and clippers. Towels will not be reused by other residents until sanitized. Instruments such as combs, clippers, and scissors will not be used successively on residents without proper cleaning and disinfecting.

For sanitation reasons, it is preferable that barbering operations be located in a room that is not used for any other purpose. The room must have sufficient light, and be supplied with hot and cold running water. The floors, walls, and ceilings will be smooth, nonabsorbent, and easily cleaned.

Each barbershop will have all equipment and facilities necessary for maintaining sanitary procedures for hair care, including covered metal containers for waste, disinfectants, dispensable headrest covers, laundered towels, and haircloths.

After each resident visit, all hair care tools that came in contact with the resident will be cleaned and disinfected effectively. Ultraviolet lights are not appropriate for sterilization but may be used for maintaining tools that have already been sterilized properly.

Detailed hair care sanitation regulations will be posted conspicuously in each barbershop for the use of all hair care personnel and residents.

Cotton pads, absorbent cotton, and other single or dispensable toilet articles may not be reused, and will be placed in a proper waste receptacle immediately after use. The common use of brushes, neck dusters, shaving mugs, and shaving brushes is prohibited.

Barbers or beauticians will not provide service to any resident when the skin of the resident's face, neck, or scalp is inflamed, or when there is scaling, pus, or other skin eruptions, unless service of such resident is performed in accordance with the specific authorization of the clinical medical authority. No person who is infested with head lice will be served and will be referred for health care as appropriate.

F. Food Service

Centers will maintain environmental standards in food service areas in accordance with the ICE Family Residential Standard on *Food Service*.

References

- ICE Family Residential Standard on Definitions
- ICE Family Residential Standard on Food Service
- ICE Family Residential Standard on Housekeeping
- ICE Family Residential Standard on Program Philosophy, Goals, and Expected Outcomes
- ICE Family Residential Standard on Disability Identification, Assessment, and Accommodation.
- ICE Family Residential Standard on Staff Training

1.2. Environmental Health and Safety

- ICE Family Residential Standard on Voluntary Work Program
- NFPA Standards
- Occupational Safety and Health Administration (OSHA) Regulations
- U.S. Public Health Service Report on Carcinogens

Appendix 1.2.A: Common Flammable, Toxic, and Caustic Substances

Class I Liquids

Gasoline

Benzene (petroleum ether)

Acetone

Hexane

Lacquer

Lacquer thinner

Denatured alcohol

Ethyl alcohol

Xylene (Xylol)

Contact cement (flammable)

Toudi (Toluene)

Methyl ethyl ether

Methyl ethyl ketone

Naphtha Y, M, and P

Class II Liquids

Diesel fuel

Motor fuel

Kerosene

Cleaning solvents

Mineral spirits

Agitene

Class III Liquids

Paint (oil base)

Linseed oil

Mineral oil

Neat's-foot oil

Sunray conditioner

Guardian fluid

Toxic Substances

Ammonia

Chlorine

Antifreeze

Duplicating fluid

Methyl alcohol

Defoliants

Herbicides

Pesticides

Caustic Substances

Lye

Muriatic acid

Caustic soda

Sulfuric acid

Tannic acid