BIOMEDICAL WASTE PROCEDURES – USE OF CARTS AND NEW CONTAINERS

Yale is changing the way it handles certain biomedical waste in an attempt to save researchers time and use more environmentally friendly packaging. The Office of Environmental Health and Safety (EHS) has purchased a large autoclave and most of the autoclaving of biomedical waste will be done by EHS. Large stainless steel carts have been purchased that fit directly into the EHS autoclave and will be used to collect and transport biomedical waste from your building to our facility at 200 Frontage Road. Carts will be placed as close as possible to major biomedical waste generation points, typically in autoclave centers. The vast majority of the biomedical waste generated (that determined to be low risk) can be placed directly into these carts (autoclaving by laboratory personnel is not required). If you are generating moderate or high-risk waste (defined below) you must autoclave only this higher risk waste before placing it into the carts. A container change is also part of these new procedures. In the near future box-bag units will replace the use of red buckets for low risk waste. Red buckets will still be used for higher-risk waste collection. More detailed information follows. If you have any questions at this time please call Brenda Armstrong at 432-3219.

The proper handling procedures for your biologically contaminated laboratory waste (see accompanying *Biomedical Waste Disposal Flow Diagram*) will depend on whether your laboratory generates low or moderate to high-risk biomedical waste. The definition of low and moderate or high risk biomedical waste is located in the text box to the right but please note that human and non-human primate blood, body fluids, cells, cell lines, and tissue cultures (which are Biosafety Level 2) have been included in the low-risk waste category. Please call your Safety Advisor if you need assistance classifying your waste.

Low risk waste

The vast majority of the waste generated in Yale laboratories is low risk. To identify how to dispose of your low risk laboratory generated biomedical waste, follow the yellow arrows on the Biomedical Waste Disposal Flow Diagram. Please note that non-sharp waste will soon be collected in the new Yale provided bag-box units (or just bags for soft waste). Please do not confuse the new Yale provided bag-box unit with the Stericycle Box (which is larger and has the Stericycle label on it). The Stericycle Box is now only used for pathological waste and certain unregulated chemical wastes. The Yale provided bag-box units will be available for pick up by laboratory personnel in the autoclave centers where the carts are located. These boxes and bags can be placed directly in the biomedical waste carts (no local autoclaving required) when full and will be treated and disposed of by the Office of Environmental Health and Safety.

Moderate to high risk waste

To identify how to dispose of your moderate to high risk biomedical waste, follow the red arrows on the *Biomedical Waste Disposal Flow Diagram*. Please note that non-sharp

waste should continue to be collected in the traditional red

buckets. Due to the higher risk associated with transporting and handling this waste we are asking laboratory personnel to continue autoclaving this waste prior to placing the red buckets or needle boxes in our carts. To obtain red buckets call EHS at the following number - 432-6545. Red buckets will be delivered to the laboratory within 3-5 business days.

Most laboratories generating moderate to high risk biomedical waste only do it intermittently or in specific areas of the laboratory. It is typically only a small fraction of the total waste generated. Treat only that fraction of your waste that is truly moderate or high risk as such (i.e. collection in red buckets and autoclaving it locally). The rest of the waste (low risk) generated by the laboratory can be collected in the new box-bag units, bags, or needle boxes and placed directly (not autoclaved) in the EHS disposal carts. EHS will only be providing red buckets to meet your moderate to high-risk waste generation needs.

Waste that should NOT be placed in the EHS carts (please consult the Biomedical waste Disposal Flow Diagram)….

All pathological waste, or waste containing human or animal tissues, organs, or body parts, should be placed in a biohazard bag, which is available from the stockroom, and then overpacked in a Stericycle box. A **green sticker must be applied to all boxes containing pathological waste**. Place this box adjacent to our waste collection carts or your biomedical waste collection area. This waste stream will continue to be incinerated off-site by a contractor. Call 432-6545 to schedule a pickup of these boxes.

Certain unregulated chemical wastes that have been disposed of traditionally as biomedical waste (Ethidium bromide gels are an example of such a waste) should be collected in a red bucket or bag-box unit. Mark the containers with the words "Unregulated Chemical Waste", place a green (pathological waste) sticker on the box and then overpacked in a Stericycle box. Place this box adjacent to our waste collection carts or your biomedical waste collection area. This waste stream will continue to be incinerated off-site by a contractor. Call 432-6545 to schedule a pickup of these boxes.

Uncontaminated laboratory waste, or items not used or contaminated with biological materials, is not considered biomedical waste. It does not require autoclaving or further processing and therefore may be thrown out with the "normal" trash. Soft waste that has not been used or contaminated with biological materials, such as paper towels and gloves, can be placed directly into the normal waste bin and will be removed by a custodian. Because uncontaminated sharp waste such as broken glass could puncture a bag and injure a custodial employee, we ask that you place this waste in a box, preferably with a bag, close it and seal it with tape. Any box will do. Write "broken glass" on the box and place it next to your trash container for removal by a custodian. Please do not use a biomedical waste box or bucket for disposal of broken glass. Once any waste has been placed in a biomedical waste container we will have to dispose of it as biomedical waste at much greater cost.

We thank you for your patience as we implement this new system. If you have any questions at this time please call Brenda Armstrong at 432-3219.

Definition of low and moderate or high-risk biomedical waste for disposal purposes

Low risk waste has been contaminated with Biosafety Level 1 biological material not known to cause diseases in healthy humans, animals or plants. This category includes Biosafety Level 1 materials

such as E.coli K12, cultures of most non-human, mammalian and non-mammalian tissue and other BL1 derived materials. In addition, human and non-human primate blood, body fluids, cells, cell lines, and tissue cultures (which are Biosafety Level 2) will be included in this low-risk waste category.

Moderate to high risk waste has been contaminated with human, animal, or plant pathogens, non-exempt recombinant DNA, select agents or biological toxins. Examples include BL2 or BL3 human or animal pathogens, BL2 or BL3 non-exempt recombinant DNA, agents requiring State, CDC, or USDA registration.