PUBLICATION: MAY 2012
REVISION: AUGUST 2016
VERSION: 1.2

CARE GUIDANCE

RECOMMENDATIONS ON BEST PRACTICE

LEVEL 2

Good Housekeeping and Handling Practices for HTIW

GOOD HOUSEKEEPING AND HANDLING PRACTICES FOR HTIW

INTRODUCTION

This is a level 2 document in the ECFIA CARE Guidance series. It focuses on ways to reduce airborne fibrous dust concentrations by using good housekeeping and handling practices.

Good housekeeping and handling practices are part of a recognised hierarchy of controls that should be followed. Please refer to the level 1 document "Working with HTIW – Effective Risk Management" for information on how this document fits into the control hierarchy.

WHAT IS THE CARE PROGRAMME?

ECFIA´s Controlled And Reduced Exposure (CARE) Programme is an important part of the Product Stewardship Programme. It allows employers to proactively minimize fibrous dust exposure and thus protect workers' health.

WHAT ARE THE CARE GUIDANCE DOCUMENTS?

These documents form a comprehensive library of information on the safe handling and use of HTIW products. They have been written by industry experts and are designed to give customers of ECFIA members helpful information to put in place effective controls to minimise exposure to airborne fibres. This series of documents will progressively grow as new documents are produced.

Level 1 guidance document: "Working with HTIW - Effective risk management"
Level 2 guidance documents: Risk management measures applicable to HTIW
Level 3 guidance documents: Examples of specific applications

HANDLING PRACTICES

Dust is generated when products are handled or machined. Specific information on machining can be found in other level 2 and 3 documents listed in the document menu. In order to reduce the amount of airborne dust generated when handling HTIW based products, the following handling practices are recommended.

One way to avoid or minimise exposure from machining operation is to use ready to use products. These can be encapsulated or coated with dust suppressant to further reduce dust release.

One of the main origins of dust exposure is the handling of the products after machining, as the products are covered in excess loose dust from the machining operation. This can be reduced by cleaning the product after finishing, before it is taken out of the pickup area, using a brush (under ventilation) or a vacuum cleaner equipped with a HEPA filter.

Most HTIW products are friable and should be handled with care - for example by lifting pieces fully, either manually or with lifting aids for large pieces, and not dragging or rubbing them on rough surfaces.

During transport and handling, products may release dust when rubbed against each other or against other rough surfaces. It is therefore important to minimise the contact between pieces, for example, by using spacers when stacking items in cartons.

When technically possible (according to the composition and future application) products may be sprayed with a fine mist of water prior to handling to prevent dust release from surfaces. This is particularly useful for handling operations before or after machining, known to be important sources of dust emission. Fine water spraying should be used where it is difficult or impossible to handle products under an appropriate ventilation hood. For certain end use applications, care should be taken to ensure the product is dry before final use.

WASTE HANDLING

Waste such as trim, off-cuts and scrap should be handled so that dust generation is minimised. Waste is most commonly generated during machining operations or during quality control processes.

Debris from products taken out of their packaging or after machining is best removed using a vacuum cleaner equipped with a HEPA filter. This can be performed directly in the packaging prior to handling or at the workplace before further use.

There are two main types of waste produced during the machining process; these are off-cuts from the process and dust generated by the machine which settles out onto the machine, the off cuts and the surrounding area. Regular cleaning of the workplace should be carried out to

prevent build up of fibrous dust. Off-cuts should be handled with care and placed into waste bins carefully rather than being thrown in; if ventilation systems are in place then the waste collection facilities should be incorporated into the ventilated area.

Dust collectors are best equipped with a valve connected to a double plastic bag or a large bag with excess capacity, helping to minimise dust emissions when taking the bag away from the dust collector.

Disconnecting the bag from the dust collector shall always be done before the bag is full. Changing the bag shall always be done according to the following sequence:

1. Close the valve between the dust collector and the waste bag, make sure the material between the valve and the bag has fallen into the bag then
2. Close the bag with a wire or equivalent
3. Disconnect the bag from the dust collector.

Once collected, waste bags (both from dust collectors and general waste) shall be labelled to allow clear identification of the type of waste product, and the possibility of recycling addressed. If recycling is not possible, wastes shall be taken to an appropriate landfill site, taking care to minimise dust generation. Local regulations may vary from one jurisdiction to another - please check the specific requirements in your area. Normally ASW/RCF has to be disposed of at 'special waste' landfill sites, while other HTIW like AES and PCW can be disposed of as industrial waste.

PRACTICAL ORGANISATION AND TRAINING

Work areas must be organised in such a way as to avoid unnecessary worker exposure, e.g. by segregating HTIW operations from other parts of the facility wherever possible and/or organising workloads in such a way that dusty operations are spread throughout the working day, if possible.

The workers should have ready access to safe handling documentation and standard operating procedures in the work area where HTIW is handled.

The number of handling steps in each work process should be minimised as much as possible.

Wherever possible, processes should be automated to avoid handling, or handling aids such as moveable benches used to minimise carrying of product.

Training should be given to all members of the workforce. This may take the form of on-the-job training or more formalised training on the importance of good hygiene and working practices.

HOUSEKEEPING

Good housekeeping is essential in any work area where the airborne dust concentration needs to be controlled.

The following practices are recommended to minimise secondary exposure, which can occur when fibrous dust that has settled onto the floor or work surfaces is disturbed and becomes airborne again.

Ensure the workplace (floors, benches, machines etc.) is cleaned thoroughly on a regular basis, at least once per day or shift. Whenever possible, cleaning should be carried out using either a vacuum hose fixed to a central vacuum system or a portable cleaner with HEPA filtration.

A more intensive cleaning programme can be implemented, for example on a twice yearly basis, to include cleaning of ductwork, building framework (e.g. rafters) etc.

If it is necessary to use brushes, ensure the floors are thoroughly wetted before cleaning and use soft bristled brushes to minimise the amount of dust pushed into the air.

For particularly dusty operations, such as some finishing operations, it may be necessary to clean the machine after each use; in such cases dedicated cleaning equipment should be assigned to each machine.

If above the limit value, use of appropriate respiratory protection is required (see the ECFIA Code of Practice for more information).

Workers should be given specific work clothes that should be laundered by the employer; workers should vacuum the clothes before removal at the end of a shift to remove any loose material. Work clothes should not be taken home.

In the case of ASW/RCF, work clothes should be kept in separate lockers.

Compressed air should never be used to clean work areas or workers' clothes.