

TOPICAL TREATMENT : Using BAT 505 NTX, 507 HC, and 508 NTX

Perhaps the easiest to perform and easiest to appreciate method of odour control is surface contact treatment. Something smells. You spray it. It doesn't smell anymore. This is to be distinguished from spraying something into the surrounding air to temporarily relieve the symptoms (the odours) rather than to actually impact the source of those symptoms.

In those situations where it is applicable, topical treatment is quick and cost effective, and will require far less frequent applications than air contact. Take, for example, the case of a typical outdoor composting operation. If the facility attempts to utilize air contact, it may need to deal with an entire perimeter of atomising nozzles, and these nozzles may need to spray continuously, or at least regularly through several hours of the day. Certainly, it is possible to place atomising nozzles on a row turner, but this will only work when all the odour problems occur from the rows during turning. Air contact during turning will not impact non-turning row odours blown off-site with the wind or creeping into the surrounding areas during temperature inversions, nor will it impact any odour caused by leachate collection or ponding.

On the other hand, a topical deodoriser need be applied only to the trouble spots, and only when those spots are actually causing trouble. The topical may be sprayed from nozzles on a row turner during turning, or it may be applied with any spray equipment at any time it is needed. The surface of a pond or pool may be sprayed as easily and effectively as the surface of a windrow. Additionally, where atomisation may need to be repeated every few seconds (because it deals with odours after they have off-gassed), the topical deodoriser will last hours and sometimes days with a single treatment because it directly impacts the levels and occurrence of off-gassing.

The same case may be made for many problem areas within landfills, wastewater treatment facilities, and transfer stations. This is not to say that topical treatment may eliminate the need for air contact or other treatment in most situations. It is to say that topical treatment can **greatly reduce** the need for air contact, and may also dramatically complement and enhance the effectiveness of any other program of odour management. Regardless of how many scrubbers, filters, and other systems are in place in sources of odour generation, there are always surface areas, which remain odorous or become odorous from time to time.

Another example to consider is the case of garbage container areas and compactors in buildings and institutions. These situations are usually treated with air contact systems releasing deodoriser into the air at pre-programmed intervals every few minutes. They are seldom truly effective because the incoming material flow may be very infrequent and overload the deodoriser's capacity when volume does arrive; or the flow may be frequent and regularly occur during intervals when the air contact system is not activated. These systems do not attempt to deodorise the incoming materials. Consequently, the already compacted or existing materials continue to generate odour in conjunction with new materials. A direct topical spray of incoming material before, after, or as it is compacted is far more effective. This type of treatment decreases the generation of odour. Additionally, floors, walls, and the exterior of the compactor may be topically treated to further reduce area odours.

TRUCKS and MATERIALS TRANSPORT

Frequently odorous materials such as sewage bio-solids must be transported to treatment centres or land application sites. Additionally, garbage collection vehicles, animal transport vehicles, and other materials transport vehicles often carry the smell of their cargo with them through business and residential neighbourhoods – even after the cargo has been delivered. Topical treatment of the materials and the vehicles greatly reduces the extent of this problem. The topicals may even be added to vehicle and tire wash systems. Typically, the top surface area of a truck may be sprayed prior to tarping, and even permeable tarp covers may be sprayed. This is a very inexpensive yet effective method to reduce odour problems caused by the transportation of odorous materials.

BAT 505 NTX, 507 HC, and 508 NTX

Global has developed 3 products specifically for topical treatment of certain materials and the odours that accompany them. BAT 505 NTX was developed for all-purpose use, but is especially effective on garbage, food wastes, and compost. BAT 507 NTX was specifically developed for use on grass and in green waste composting, in carcass and mortality treatment, and in any situation where decomposition is occurring with insufficient carbon (excessive nitrogen). BAT 508 NTX was developed for use on sewage bio-solids and sludge's, animal manures, and other materials high in organic acids. All three products are liquids; highly dilutable, completely soluble in water, non-toxic, non-hazardous, and completely bio-degradable. They require no special treatment, no special disposal methods, and may be shipped by any carrier. Typically, dilutions will be 100 to 1 up to 500 to 1 with fresh water. Application rates are often as low as 1 millilitre of concentrate per square metre of surface area to be treated, making these products very economical to use.

The best way to test topical products is where this paper began. Find something that smells and spray it with the appropriate product. Certainly neither **BAT 505 NTX, 507 HC, or 508 NTX** will work every time in every situation. However, they will work in a very high percentage of situations, and they will work effectively, economically, and immediately. Careful consideration should be given to the use of topicals to supplement and enhance other treatments, to replace some types of treatments, and to establish treatment in situations where other methods are not economically feasible.