

Chemical Maintenance, Startup, and Shutdown (MSS) for Terminals and Miscellaneous Sources

Frequently Asked Questions (FAQ)

1. What is a convenience tank landing?

A “convenience” tank roof landing is conducted to remove stored product from a floating roof tank for the purpose of re-filling the vessel with a product compatible with the removed product. For convenience landings, products are compatible when the residual content of removed product in the re-filled product does not affect its salability or intended use. Convenience landings at “for-hire” terminals are typically conducted to accommodate the product owner’s business needs, and for this reason will most likely be authorized only at this type of facility. Typical BACT considerations for convenience landings in new and modified tanks include drain-dry bottoms; connections for routing emissions to controls; 24-hr. maximum uncontrolled off-float period; controlled de-gassing to 10,000 ppmv; control of the emissions generated during re-fill and extended off-float periods; and minimized frequency of uncontrolled landing events.

2. Can a Permit-by-Rule be used to authorize part or all of my MSS activities?

All emissions resulting from each MSS activity, regardless of their ultimate emission point, must be authorized by the same permitting mechanism. For example, in the maintenance of a process vessel, its residual liquid may be transferred to a frac tank whose loading emissions are routed to the plant flare. After loading, the frac tank produces additional emissions while it holds the residual liquid. The process vessel may also be degassed to a separate temporary control device, and may ultimately be vented to the atmosphere. The full spectrum of this emissions scenario (i.e., the controlled loading and ‘standing idle’ emissions from the frac tank, and the controlled and uncontrolled de-gassing emissions from the process vessel) must be entirely authorized either by the same permit or in permits by rule (PBR). For an unrelated MSS activity, a permitting mechanism other than what may have been applied to the described scenario may be used (e.g., emissions from process vessel maintenance in PBR, emissions from storage vessel maintenance in permit). Activities unrelated to clearing the vessel of its content (e.g., sandblasting, painting) may also be authorized under mechanisms separate from those used to authorize the vessel clearing emissions.

3. What is partial permitting?

Partial permitting is the use of separate authorization mechanisms to authorize separate sources and emissions attributable to the same MSS activity, and is not

allowed. In the previous process vessel maintenance example, partial permitting would be characterized by the use of a permit for authorization of the loading emissions at the plant flare, while using a PBR for authorization of the degassing emissions at the temporary control device.

4. Can established fugitive emission factors be used to calculate MSS emissions from maintenance of fugitive components?

No. Maintenance of fugitive components isolated and removed from the process typically results in a pair of open-ended lines. Standard leak detection and repair Special Conditions are being revised to address this occurrence with specific time-frame and monitoring requirements; no additional fugitive emissions are being considered for this scenario. The emissions attributable to material in open ended lines are considered and evaluated as a planned maintenance pipe-clearing event, which is in turn subject to the same emissions estimate methods applicable to process vessels (see MSS Guidance, Section II.5). Typical considerations and approaches applicable in this situation include submerged/splash loading factors, clingage, vapor pressure, residual vapor concentrations, the P-42 loading loss equation, the Ideal Gas Law, and the number of annual events.

Document Change Record

Version	Date	Author	Change Details	Change Rationale
01	08/14/12	R. Goertz	Original Issue	
02	09/07/12	A. Garza	Answer FAQ Nos. 2,3,4	See 'Details'