

Guidance on Fire Risk Assessment for Non-Hazardous Waste Facilities

1. Purpose

The purpose of this note is to provide guidance on the preparation of a Fire Risk Assessment for Non-Hazardous Waste Facilities.

2. Introduction

A recent focus by the EPA on reducing fire risk at waste facilities has led to the strengthening of licence requirements in relation to fire risk at certain large-scale non-hazardous waste facilities.

Conditions have been inserted into selected non-hazardous waste facility licences requiring the completion of a fire risk assessment (FRA) by an independent and appropriately qualified consultant¹. The FRA must examine all relevant factors at the waste facility that impinge on fire risk and prevention and must have regard to the *EPA Guidance Note: Fire Safety at Non-Hazardous Waste Transfer Stations* (EPA, 2013). The primary focus of the FRA should be on fire prevention, early detection and intervention. This note has been prepared in consultation with the National Directorate of Fire and Emergency Management (NDFEM). Any queries in relation to this guidance should be directed to the Office of Environmental Enforcement (OEE) in the EPA.

3. Requirements of a Fire Risk Assessment

The Fire Risk Assessment (FRA) must address the following:

- Identification of potential sources of ignition and combustible materials on site, both internally and externally at the facility.
- Assessment of all fire risks both internal and external at the facility.
- Identification of controls and recommendations to eliminate or reduce the fire risk.
- Fire prevention planning including maintenance, testing, inspections, procedures and training. Particular consideration shall be given to the need for:
 - Monitoring of waste for self-heating/self-combustion;
 - Specific stock rotation regimes;
 - Techniques or practices specific to the waste activities on site e.g. spark arrestors, rubber strips, no-smoking policies and hot work controls such as fire watches;
 - Regular documented inspection and testing of fire detection, fire fighting, emergency lighting and electrical systems;
 - Regular documented preventative maintenance of waste processing equipment and on-site vehicles.
- Provision of early fire detection and warning systems, in accordance with appropriate standards, including consideration of automatic detection systems and out-of-hours security arrangements etc.
- Arrangements for 'first-aid' fire fighting, automatic fire suppression systems (area or equipment specific) and provision of water for use by the fire service.
- A recommendation for the location of the fire quarantine area.

¹ A register of approved consultants is not maintained by either the EPA or the National Directorate of Fire and Emergency Management.

Guidance on Fire Risk Assessment for Non-Hazardous Waste Facilities

- Provisions to limit fire spread which shall include:
 - An assessment of the suitability of existing storage bays or dividing walls to limit fire spread. This should consider if such walls are of robust and imperforate construction, if they are constructed to inhibit fire spread (particularly at junctions of abutting wall sections) and if they possess the capacity to withstand knocks from plant and machinery. Recommendations for upgrading of existing storage bays or dividing walls where necessary should be included.
 - The maintenance of adequate freeboard to prevent overtopping of waste material over bay walls and overspilling of waste material beyond the sides of bay walls.
 - The setting of maximum sizes for stockpiles of waste and minimum fire break separation distances between stockpiles of waste.
 - The potential for fire spread posed by other buildings on site and fire spread posed from higher risk ancillary rooms within waste transfer buildings e.g. boiler rooms, electrical rooms, designated plant rooms or other highly flammable storage spaces.
- Security arrangements at the site.
- Provision of an accurate laminated site plan at all times, available at locations where it can be readily accessed and removed from the site in an emergency situation/on evacuation. Storage of an off-site copy should also be considered. The plan should include applicable fire prevention, detection and fire fighting measures, buildings, designated fire quarantine area, main waste storage areas, high risk areas, utility cut off points, prevailing wind direction and drainage layout.
- Access and facilities on site for fire services, and requirements from any previous contact the site has had with the fire service.
- Relevant guidance such as *Fire Prevention Plans* [EA, 2015] and *Reducing Fire Risk at Waste Management Sites* [WISH, 2014] and any revisions to same.
- Any pertinent information where previous fires have occurred on site.
- Any relevant aspects of the insurance for the site pertaining to fire.
- Any other relevant factors on site.

The FRA Report shall address all of the above aspects and include a section on all recommendations arising from the assessment. Relevant recommendations from the FRA should be incorporated into the Waste Storage Plan for the site as per licence requirements, outlining the safe storage arrangements for waste within the building, and externally where permitted.

Nothing in this guidance should be construed as negating the operator's statutory obligations or requirements under any fire, health and safety legislation or other enactments or regulations.

Disclaimer

Although every effort has been made to ensure the accuracy of the material contained in this publication, complete accuracy cannot be guaranteed. Neither the Environmental Protection Agency nor the author[s] accept any responsibility whatsoever for loss or damage occasioned or claimed to have been occasioned, in part or in full, as a consequence of any person acting, or refraining from acting, as a result of a matter contained in this publication.