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EREF
Lighting a path to sustainable waste management practices

Assessment of the Frequency and Cause of Fires at Material Recovery and Scrap Recycling Facilities and Collection Vehicles

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Background & Objectives

The solid waste and scrap recycling industry is tasked with managing a wide variety of waste and recycling materials. A portion of these materials are recovered and processed at material recovery facilities (MRFs) and scrap yards. While dealing with fires at solid waste management facilities or scrap yards is not uncommon, anecdotal evidence suggests that the rate of fires at MSW, C&D MRFs and scrap yards may be on the rise.

While some data exists on the frequency of fires at MRFs and scrap yards and with collection vehicles, there is little detail on the cause of the fire, what best management practices are used to prevent fires, and how to extinguish them. While a number of factors could be at play, the increased use of lithium ion batteries has been suggested as a contributor to fires in recent years. Additionally, the extent to which lithium ion batteries are disposed of and present in waste and recycling materials discarded to MRFs and scrap yards is poorly understood.

The primary objective of this effort is to compile information that summarizes the following information about fires at MRFs and scrap recycling facilities and collection vehicles:

- ***Frequency of MRF and scrap recycling fires annually (i.e. % of facilities)***
- ***Frequency of collection vehicles fires***
- ***Suspected cause(s) of these fires***
- ***Strategies/technologies used to fight the fire***
- ***Damage caused by the fire (e.g. property, personnel injury/death, lost operating revenue)***
- ***Preventative measures taken to minimize the potential for fires***
- ***Likelihood for lithium ion batteries to be disposed of at MRFs or scrap yards and potential to cause a fire***

Project Components

To achieve these objectives, this project will include:

- Review and compilation of current data sources related to the causes and frequency of waste and recycling fires.
- Survey of MRF, scrap yard, and collection companies to ascertain the frequency, suspected causes and damage due to facility and collection vehicle fires.
- Assess lithium ion battery disposal practices and their contribution to fires, by:
  - ♦ Reviewing manufacturing data to determine the product types that contain these batteries
  - ♦ Evaluating labeling on batteries to understand how well it informs consumer discard decisions
  - ♦ Examining policy and safety concerns in the manufacture and transport of lithium batteries to identify waste and recycling processes that may pose similar concern.

Sponsorship Opportunities

Premier Sponsors ($2,000+) will have the opportunity to serve on the Project Committee. Project Committee members will participate in project update meetings, gain access to preliminary findings and have early access to the final report.

General Sponsors ($500+) will have their company logo in the final report.

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