



# Santa Barbara County ReSource Center Petition for Variance Findings – December 1, 2021

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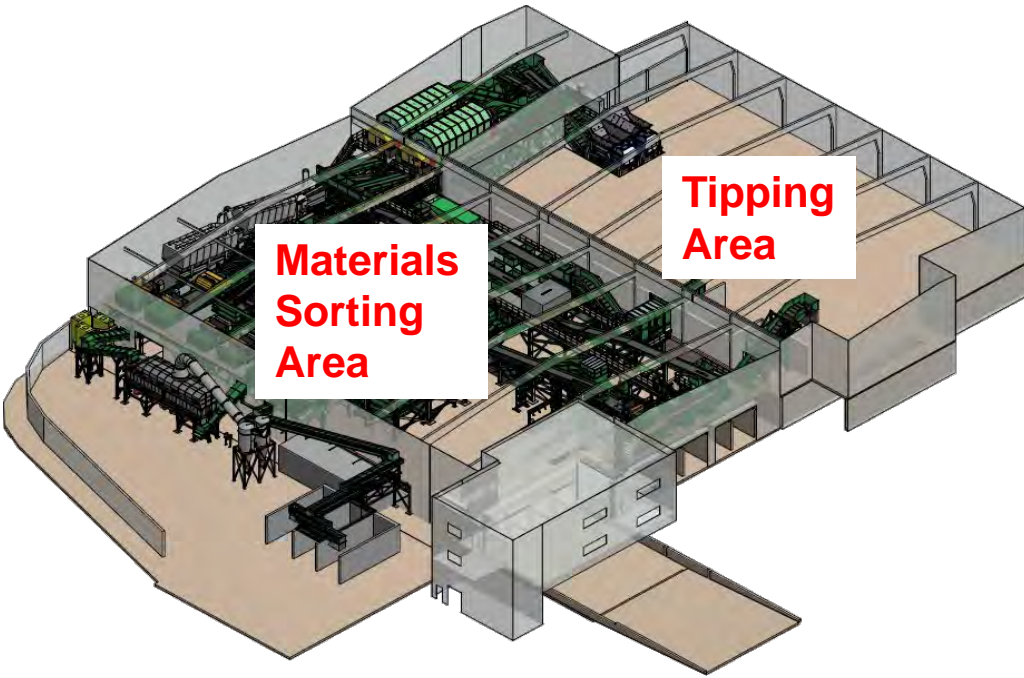
# ReSource Center

Anaerobic Digestion Facility  
(ADF)

Material Recovery Facility  
(MRF)

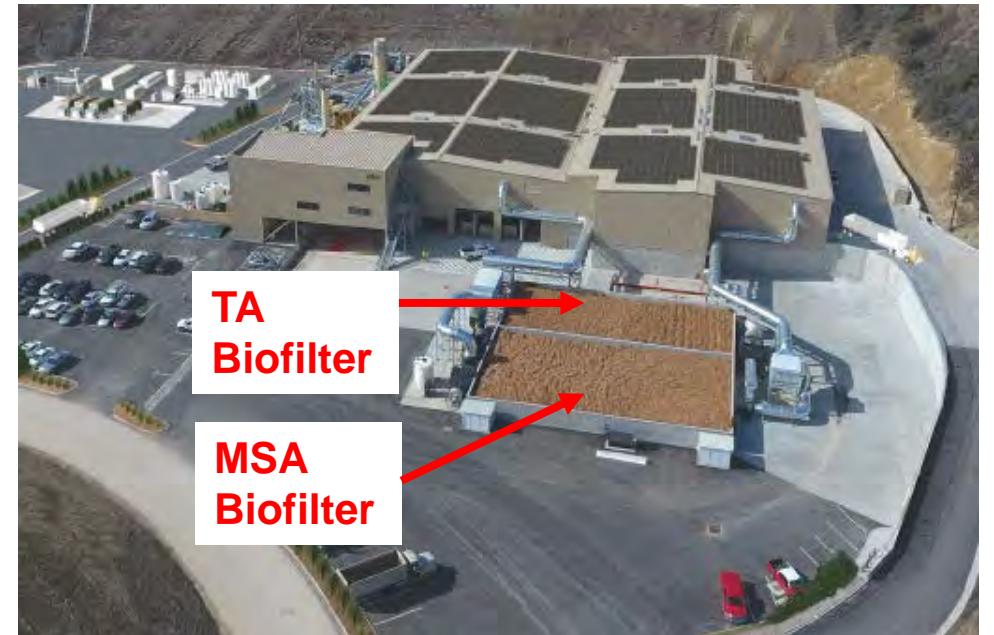
Composting Management Unit  
(CMU)

# ReSource Center Materials Recovery Facility (MRF) Overview



- Tipping Area: All Incoming MSW and CSSR is “tipped” onto the tipping area for processing.
- Materials Sorting Area: mixed waste & recyclable processing equipment area.

- Building air is exhausted to respective baghouse filters.
- Baghouse filters vent to Biofilter Scrubbers.
- Biofilter Scrubbers vent to Biofilter woodchip media.



# Odor/Emission Control (NH<sub>3</sub>, H<sub>2</sub>S & VOC's)

- All processing activities with potential to emit odors in enclosed buildings with all HVAC routed through biofilters prior to exhausting to the atmosphere (min. 6 air changes per hour).



Monday, October 11<sup>th</sup>, 6:00 PM



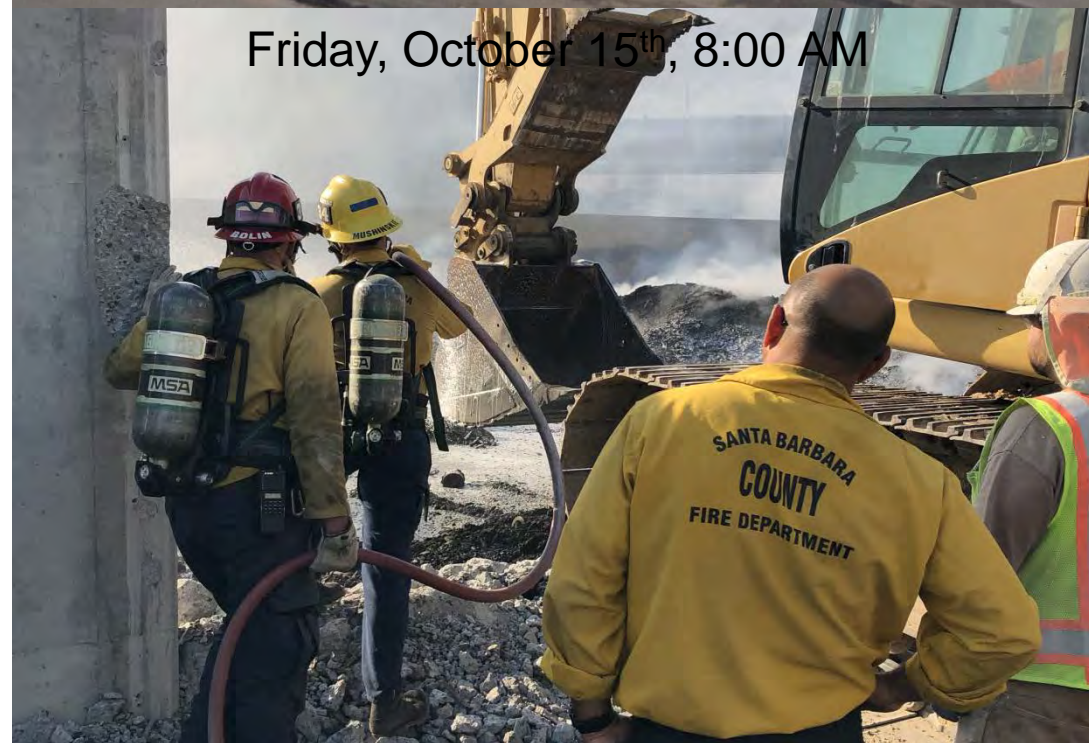
Tuesday, October 12<sup>th</sup>, 8:00 AM



Wednesday, October 14<sup>th</sup>, 12:00 PM



Friday, October 15<sup>th</sup>, 8:00 AM



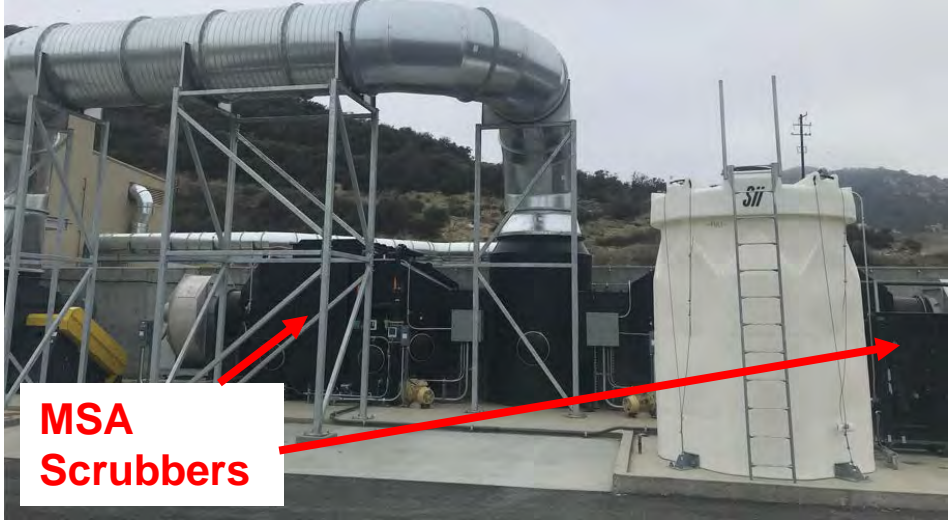
# Alisal Fire Impacts to MRF Biofilters

TA  
Baghouse  
Filters

MSA  
Baghouse  
Filters



Fire consumed 6' of Wood Chip Media



MSA  
Scrubbers

& destroyed scrubbers and baghouse fans



# Six Explicit Findings

1. APPLICANT IN VIOLATION of district rule or HSC 41701 (Visible Emissions)
2. NONCOMPLIANCE due to CONDITIONS BEYOND APPLICANTS REASONABLE CONTROL and requiring compliance would result in UNREASONABLE TAKING OF PROPERTY or CLOSING of BUSINESS?
3. SUCH TAKING is WITHOUT CORRESPONDING BENEFIT in reducing pollution.
4. APPLICANT has considered CURTAILING OPERATIONS.
5. APPLICANT will REDUCE EMISSIONS to maximum extent feasible.
6. APPLICANT will MONITOR and REPORT emissions.

# Two Implicit Findings

1. OPERATION under variance NOT a NUISANCE.
2. OTHER REQUIREMENTS to guarantee EXPEDITIOUS COMPLIANCE with emissions standards or increments of progress.



# 1. APPLICANT IN VIOLATION of district rule or HSC 41701 (Visible Emissions)

## **District Rule 206 (ATC/PTO) & Permit Conditions**

### **Compliance impossible due to Alisa Fire catastrophic losses**

- 9.C.1. MRF Tipping Area
  - Exhaust vented to baghouse
  - Building negative pressure monitoring and recording
- 9.C.2. MRF Materials Sorting Area
  - Exhaust vented to baghouse
- 9.C.4. MRF Tipping Area and Materials Sorting Area Baghouses
  - Shall not accept or handle MSW or CSSR while respective baghouses are not in operation
  - Building negative pressure monitoring and recording
  - Design flowrates and operational hours
  - Bag maintenance

All baghouse exhaust shall be vented to a biofilter



# District Rule 206 (ATC/PTO) and Permit Conditions

- 9.C.5. MRF Tipping Area and MRF Materials Sorting Area Biofilters
  - Shall not accept or handle MSW or CSSR while respective biofilters are not in operation
  - Design flowrates and operational temperatures
  - Subsurface moisture content, hydrogen sulfide and ammonia measurements.
- 9.C.6. MRF Tipping Area and MRF Materials Sorting Area Biofilter Scrubbers
  - Shall not accept or handle MSW or CSSR while respective biofilter scrubbers are not in operation
  - Design pH, recirculating flowrate, and pressure drop
- 9.C.33.a. Baghouse Inspection and Maintenance Plan
- 9.C.33.f. Biofilter Monitoring Plan

## 2. NONCOMPLIANCE due to CONDITIONS BEYOND APPLICANTS REASONABLE CONTROL and requiring compliance would result in UNREASONABLE TAKING OF PROPERTY or CLOSING of BUSINESS?

### **Requiring Immediate Compliance Results in Suspension of Critical Infrastructure Operations (i.e., Closing of Business)**

- The Alisal Fire and resulting catastrophic damage is beyond the reasonable control of the Petitioner
- Immediate compliance would put the facility in non-compliance with other State Regulations, such as SB 1383 (50% reduction in organic waste disposal by 2020 and 75% by 2025).
- Diverting waste to another processing facility increases the cost to ratepayers and contributes adversely to air quality and traffic impacts with numerous trucks added to Highway 101 (~\$20M/Year).
- ~90 Full-time employees (\$5M payroll).

### 3. SUCH TAKING is WITHOUT CORRESPONDING BENEFIT in reducing pollution.

## Emissions are 2-5% of Permit Limits w/o Biofilters

- Scrubbers are designed to remove ammonia ( $\text{NH}_3$ ) from the MRF air stream.
- Prior and Recent indoor air measurements of ammonia averaged 0.5 ppmv (5.0 ppmv permit limit). Ammonia concentrations 95% below permitted levels as materials received in the Tipping Area do not sit for very long.
- Prior and Recent indoor air measurements of hydrogen sulfide ( $\text{H}_2\text{S}$ ) highest reading at 0.020 ppmv, 2% of permitted level (1 ppmv permit limit).
- Operating the MRF without the MRF Biofilter emission and odor control equipment will not pose any significant air quality impacts.

## 4. APPLICANT has considered CURTAILING OPERATIONS

**Curtailment would have negligible emission impacts while imposing economic & other regulatory compliance burdens on County potentially increasing GHG**

- MRF compliance with State Regulations (SB 1383) requires 50% diversion of (2020) organic waste from landfilling increasing to 75% (2025). The MRF operations are critical and necessary waste infrastructure as it sorts and recovers recyclable commodities and organic waste to reduce volume of material landfill by ~60%.
- From October 12<sup>th</sup> – 25<sup>th</sup>, waste normally processed at the MRF with residue disposed at the Tajiguas Landfill was exported and buried in remote landfills, contrary to various CalRecycle regulations mandating recycling and organic waste diversion.
- \$20M/year additional cost to ratepayers if curtailment were imposed (~200,000 tons per year at ~\$100/ton for remote landfill transport & disposal) with ~50 additional trucks on US 101 to Ventura County increasing traffic and GHG impacts.
- ~90 full-time employees with annual payroll estimated at ~\$5 million.

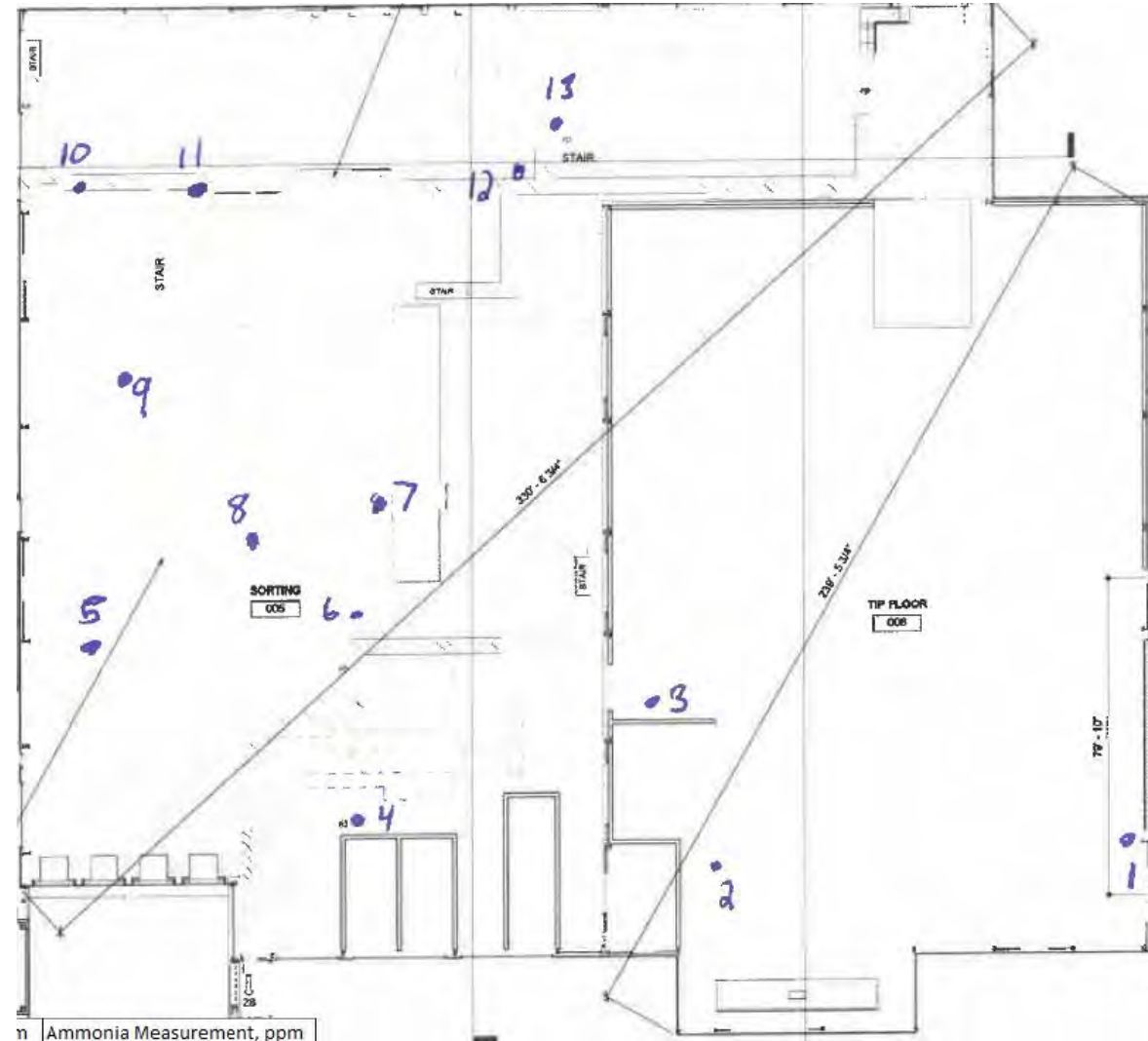
## 5. APPLICANT will REDUCE EMISSIONS to maximum extent feasible

### **Continued efficient waste processing at MRF to ADF will Reduce Emissions During Variance Period**

- Constituent emissions will be reduced to the maximum extent feasible by expeditiously processing the MSW and immediately transporting recovered organics to the Anaerobic Digestion Facility (ADF) for in-vessel processing.
- The brief MRF waste retention time efficiently diverts (~average of 1.5 hours of tip floor time + <2 minutes processing time) potential  $\text{NH}_3$  and  $\text{H}_2\text{S}$  emissions to the ADF where there is an operational scrubber and biofilter.

## 6. APPLICANT will MONITOR and REPORT emissions. H<sub>2</sub>S, NH<sub>3</sub> and PM levels have been and will continue to be recorded & reported

- Measurements of H<sub>2</sub>S, NH<sub>3</sub> and PM recorded for the past 30 days show consistent levels far below permit limits (NH<sub>3</sub> < 5%, H<sub>2</sub>S < 2%).
- Periodic measurements of H<sub>2</sub>S, NH<sub>3</sub> and PM will continue to be recorded and reported to the District during the Variance Period
- There are likely to be some MRF PM emissions while baghouse filters are inoperable; however, PM emissions are not expected to exceed permit limits.



# Two Implicit Findings

## 1. OPERATION under variance NOT a NUISANCE.

Continued efficient MRF waste processing and ADF transfer for in-vessel processing mitigates and nearly eliminates potential to emit constituents of concern (NH<sub>3</sub>, H<sub>2</sub>S & PM)

## 2. OTHER REQUIREMENTS to guarantee EXPEDITIOUS COMPLIANCE with emissions standards or increments of progress.

Baghouse filter repair & replacement in process (~4-6 mos.) Biofilter alternative means & methods required by County Fire under evaluation for need, efficacy and BMP compliance (~9-12 mos.)



# Variance - Overview

- The MRF
- SB 1383 Organics Diversion Compliance.
- ~90 Full-time employees.
- Annual transporting and processing costs of ~\$20M for export of Santa Barbara County waste to Ventura County.
- MRF Operations without the biofilters will not result in emissions in excess of the limits set in the Project's Air Permit 14500-02.