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# THREE-PART TEST CASE STUDY DISCUSSION

David Thompson  
LEA Program Supervisor



City of Los Angeles  
Local Enforcement Agency

# Overview

- Historical Context of Case Study
- Case Study Facility Overview / Pictures
- Discussion of Issues
  - Applicability of Three-Part Test
  - What is “Residue”?
  - What is “Processing”?
  - Unique Situations

# Facility History

- Previously: Recycling Center
  - Commercial Source Separated Loads
  - Door Trade
  - Drop-Off / Buy Back
  - Met <10% Residue Requirement
- New Contract with City of Los Angeles
  - Added Residential Commingled Single Stream Recycling Program
  - 10% Residue Problem

# Recycling Facility Photo



# Three Part Test Issues

- Practicality of 1% Putrescible Test
- Applicability of < 10% Residue Requirement as to Current Commingled Single Stream Recycling Programs
- “Destination Based” Definition
  - Not Materials-Based
  - Can be trash (MSW) to landfill
  - Unsold recyclables to landfill

# Three Part Test Issues

- 1% Putrescible Requirement
  - Putrescible waste is not required to be physically separated out of loads
  - Operator to visually estimate the percentage of putrescibles for monthly average
  - Waste characterization studies

# Three Part Test Issues

- 10% Residue Requirement
  - Originally for “Pre-Commingled Single Stream Programs” (e.g., Stackable Bins, for ONP, Glass/Plastic, and Tin/Al cans)
  - Majority of urban residential single stream commingled recycling programs cannot meet 10% residual

# City of Los Angeles Residential Blue (Recycling) Bin Waste Composition Study



# Recycling Bin Composition Study (41 Routes / 22 Tons Sampled)



# City of Los Angeles Residential Blue Bin Composition Study (South Central Routes)

TRANSFER STATION "A"	
Sample ID Number	Route and Truck ID
Sample 1	AR5-453
Sample 2	AR4-397
Sample 3	AR2-421
Sample 4	AR7-434
Sample 5	AR7-434
Sample 6	AR3-450
Sample 7	AR3-450
Sample 8	AR5-453
Sample 9	AR5-453
Sample 10	AR6-446
Sample 11	AR11-428
Sample 12	AR11-428
Sample 13	AR11-428 /Sub 426
Sample 14	AR12-415
Sample 15	AR12-415
Sample 16	AR9-403
Sample 17	AR9-403
Sample 18	AR?-403
Sample 19	AR?-403
Sample 20	AR8-146
Sample 21	AR8-450

Total Recyclable %	Total Non- Recyclable %
50.9%	49.1%
48.3%	51.7%
74.3%	25.7%
50.1%	49.9%
53.5%	46.5%
48.0%	52.0%
49.4%	50.6%
52.5%	47.5%
55.7%	44.3%
55.4%	44.6%
58.1%	41.9%
68.4%	31.6%
66.0%	34.0%
53.4%	46.6%
54.5%	45.5%
54.7%	45.3%
53.2%	46.8%
50.5%	49.5%
46.3%	53.7%
73.1%	26.9%
51.7%	48.3%
<b>55.6%</b>	<b>44.4%</b>

# City of Los Angeles Residential Blue Bin Composition Study (East Valley Routes)

<b>TRANSFER STATION "B"</b>	
Sample ID Number	Route and Truck ID
Sample 22	AR2 - 536
Sample 23	AR2 - 536
Sample 24	AR4 - 508
Sample 25	AR4 - 508
Sample 26	AR21 - 621
Sample 27	AR21 - 621
Sample 28	AR26 - 485
Sample 29	AR26 - 485
Sample 30	AR25 - 527
Sample 31	AR25 - 485
Sample 32	AR28 - 572
Sample 33	AR6 - 525
Sample 34	AR8 - 523
Sample 35	AR8 - 523
Sample 36	AR9 - 538
Sample 37	AR9 - 538
Sample 38	AR22 - 517
Sample 39	AR22 - 517
Sample 40	AR29 - 516
Sample 41	AR29 - 516

<b>Total Recyclable %</b>	<b>Total Non-Recyclable %</b>
70.4%	29.6%
61.3%	38.7%
62.0%	38.0%
64.8%	35.2%
79.8%	20.2%
86.2%	13.8%
71.7%	28.3%
74.7%	25.3%
62.7%	37.3%
62.7%	37.3%
80.1%	19.9%
70.5%	29.5%
65.3%	34.7%
68.0%	32.0%
85.0%	15.0%
80.0%	20.0%
71.8%	28.2%
71.3%	28.7%
63.6%	36.4%
59.8%	40.2%
<b>70.6%</b>	<b>29.4%</b>

## Trash (Considered Contamination / Residue)



# Trash (Considered Contamination / Residue)



# Non-Recyclables (Considered Contamination / Residue)



## HHW in Blue Bins (Considered Contamination / Residue)



# Medical Waste in Blue Bins (Considered Contamination)



# Recycling Facility Photo

(Source Separated Single Stream Residential Recycling Loads)

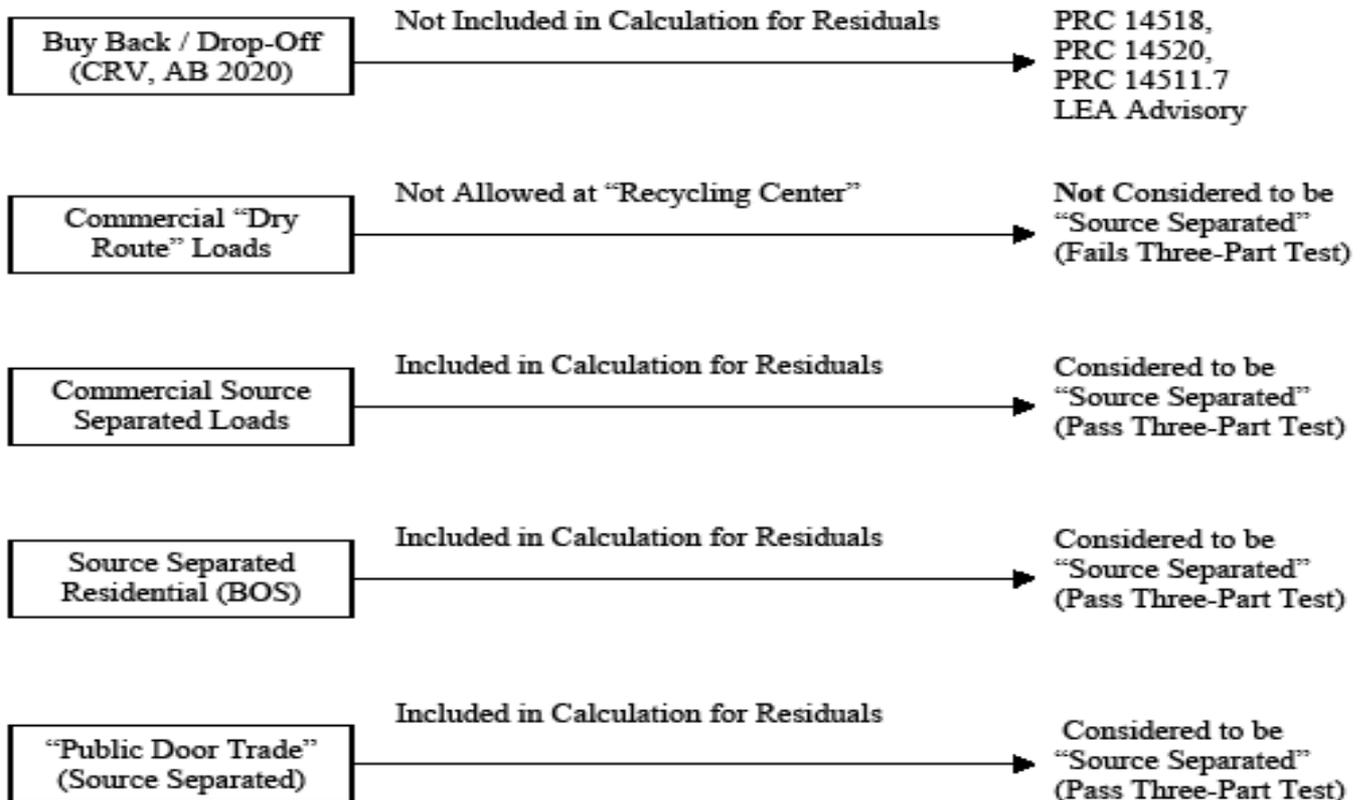


## INCOMING TONNAGES

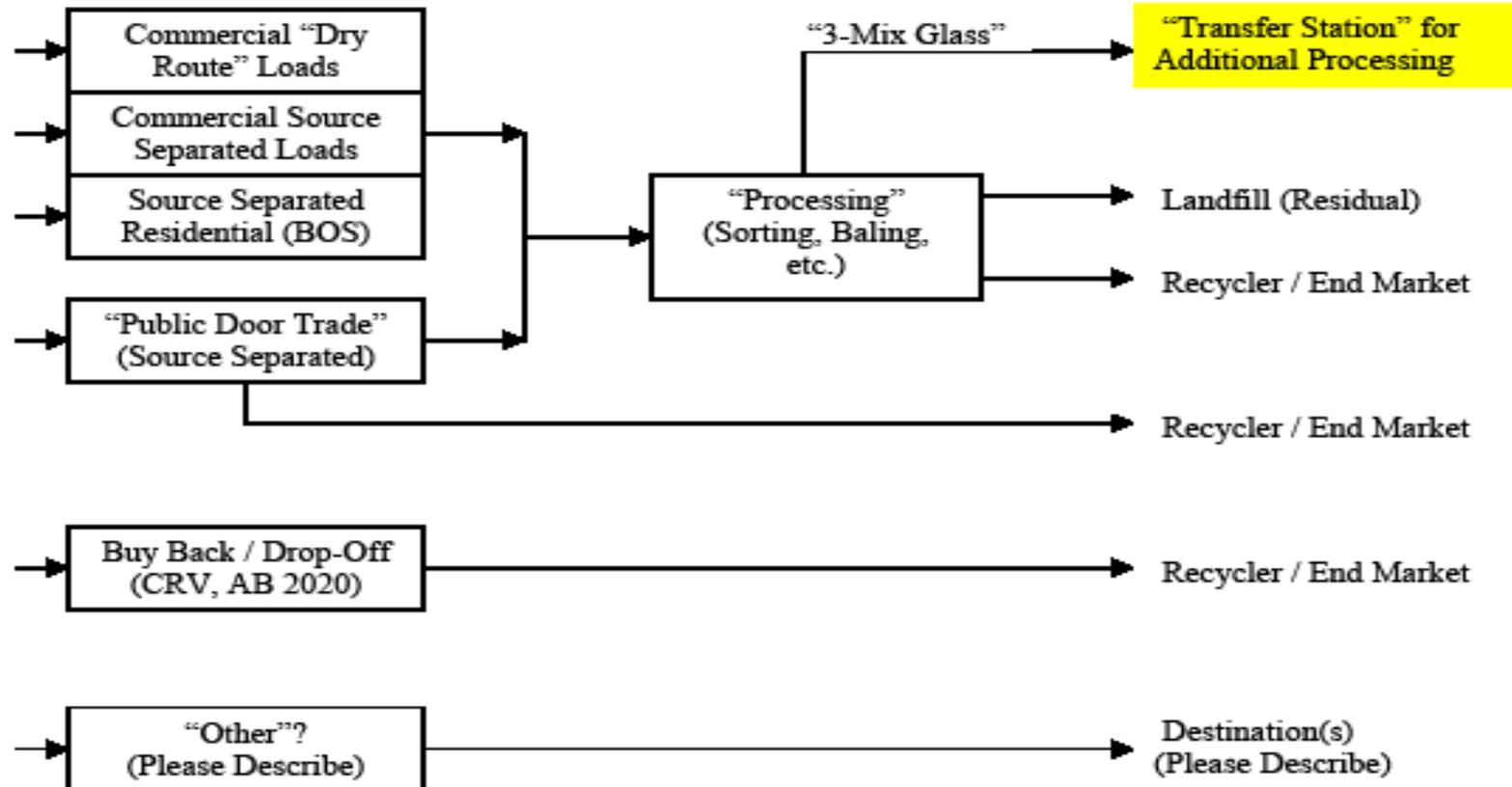
14 CCR 17402.5(d)(1): A recycling center shall only receive materials that has been separated for reuse prior to receipt.

14 CCR 17402.5(d)(2): The residual amount of solid waste in the separated for reuse materials shall be less than 10% of the amount of separated for reuse materials received by weight.

(A) The residual amount is calculated by measuring the outgoing tonnage after separated for reuse materials have been removed.



## MATERIALS FLOW DIAGRAM



<b>RECYCLING CENTER DATA</b>			
<b>Month X    Outgoing Tonnage</b>			
<b>ID#</b>	<b>Materials</b>	<b>Tonnage</b>	<b>Notes</b>
1	Trash (Disposal)	470.07	Counts as Residual
2	Recyclables (LA Port, OCC/ONP/Mix)	5,088.85	Recycling Tons
3	3 -Mix Glass/Compost (to "Processing")	563.10	Residual or Not ????
4	Glass (Beneficiation)	94.61	Recycling Tons
5	Cans (to Recycler)	0.00	Recycling Tons
6	CRV Plastic (to Recycler)	118.28	Recycling Tons
7	<b>Outgoing Total</b>	<b>6,334.91</b>	
<b>Three Part Test 10% Residual Analysis (Destination-Based Analysis)</b>			
8	% Residue (Trash Only)	7.4%	Passes 10% Residual Rule
9	% Residue (Trash + 3-Color Mix)	16.3%	Fails 10% Residual Rule

# Storage of “Unprocessed 3-Mix Glass/Compost” Feedstock



# “Unprocessed 3-Mix Glass/Compost” Feedstock



# “Unprocessed 3-Mix Glass/Compost” Feedstock (Residue?)



# “PROCESSING” ?

3-Mix Glass Feedstock from  
“Recycling Facility”



3-Mix Glass



Compost  
Feedstock



# Three Mix Glass (to Glass Recycler)



# Compost Feedstock



# Stockpiled Medical Waste (Sharps) from Recycling Loads



## Close-up of Sharps



# Storage/Utilization of “Baled Feedstock for Second Pass Processing”



# Storage/Utilization of “Baled Feedstock for Second Pass Processing”



# “Recycling Center” Operational / Safety Issues



# “Recycling Center” Operational / Safety Issues



# Thank You

**David Thompson**

**David.Thompson@lacity.org**

213-978-0868

Photos/Data Provided by:

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