



Orange County  
Sanitation District  
70th Anniversary

# Digester Replacement at Plant No. 2, Project No. P2-128

Presented by:  
Mike Dorman, Director of Engineering

Operations Committee  
November 6, 2024

*Professional Design Services Contingency Increase*

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## Plant No. 2 Anaerobic Digesters



Raw Sludge



Digesters (98° F)



15+ Days



Class B Biosolids



After Dewatering



18 Digesters

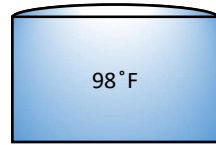
### Project Drivers

- 46-65 years old
- Some are nearing end of useful life
- Seismic deficiencies cannot be cost effectively addressed (2015 Study)
- Liquefaction risks

2

2

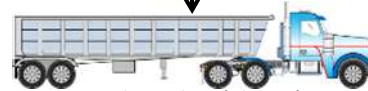
## Existing Plant No. 2 Digestion



Mesophilic Digestion



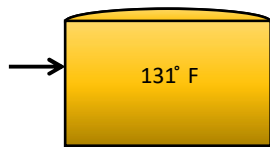
Centrifuge



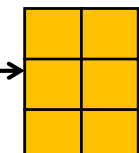
Truck Loading (Class B)  
(non-food crop or composting)

3

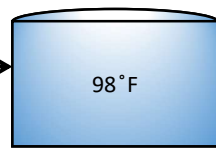
## TPAD Digestion Process



Thermophilic Digestion



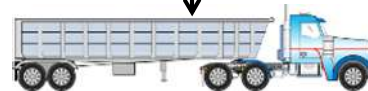
Batch Tanks/  
Sludge Cooling



Mesophilic Digestion



Centrifuge

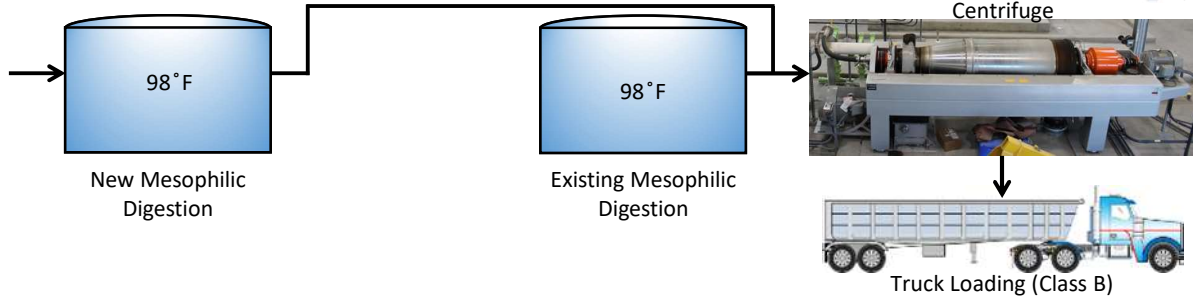


Truck Loading (Class A)  
(food and non-food crops and  
landscaping amendments)

TPAD = Temperature Phased Anaerobic Digestion

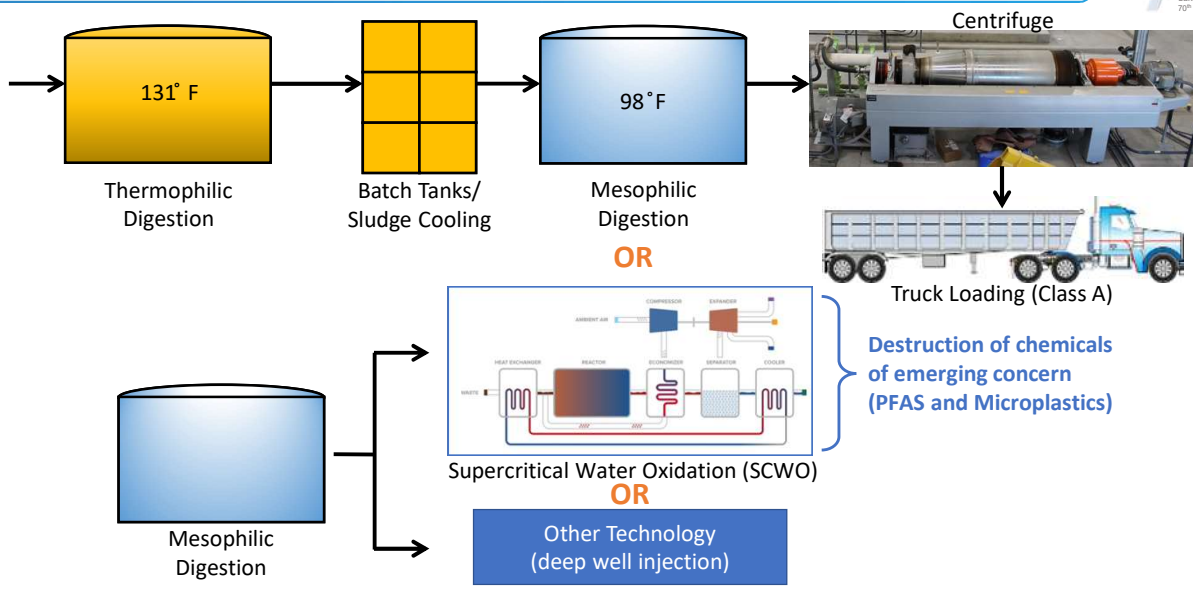
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# Phase 1 Digestion Process



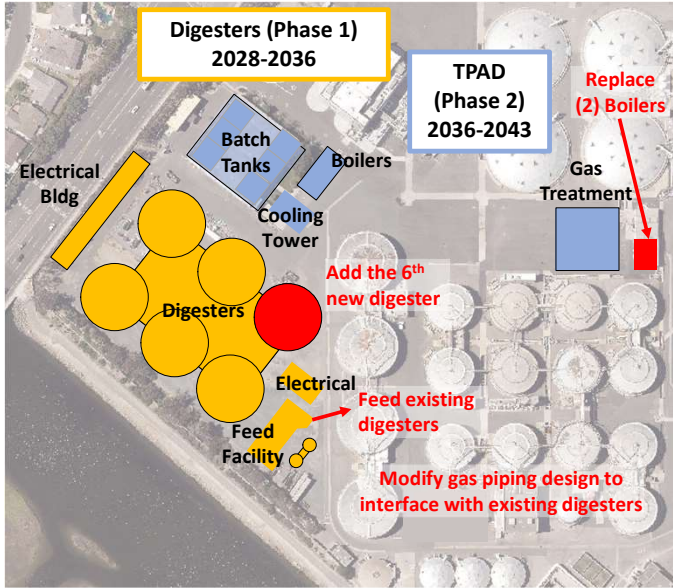
5

# Phase 2 Digestion Process



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# Phasing and Revised Scope



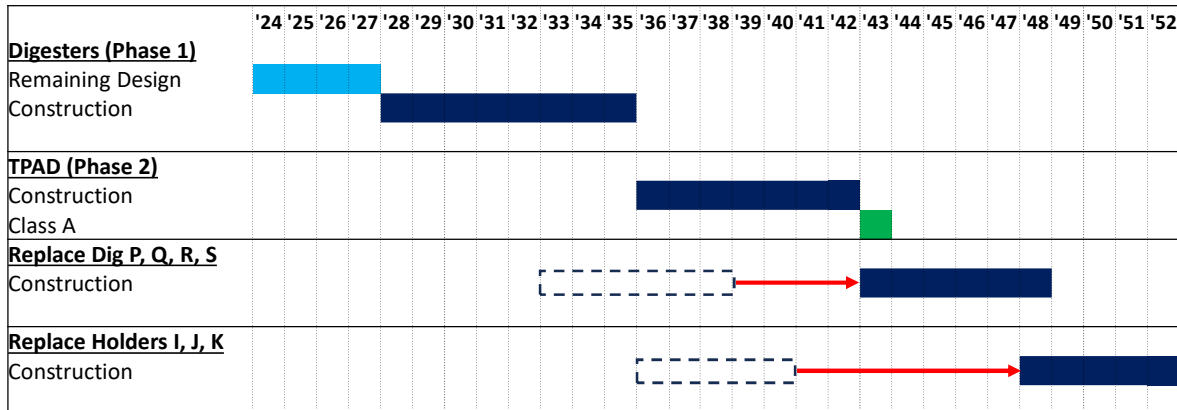
**Additional Scope:**

- Expand CenGen sludge heating system to heat the new digesters
- Design interface points for future Phase 2

We are building what we need now

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# Future Project Phasing



8

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## Design Cost Summary



Description	Cost
Additional Design Costs	\$5.7M
Additional Design Contingency	\$0.6M
<b>Total Contingency Increase</b>	<b>\$6.3M</b>

## Recommendation



Recommend to the Board of Directors to:

Approve a Contingency increase of \$6,288,000 (16%) to the existing Professional Design Services Agreement with Brown and Caldwell for the Digester Replacement at Plant No. 2, Project No. P2-128, for a new total contingency amount of \$10,218,000 (26%).

