

**INLAND EMPIRE REGIONAL COMPOSTING AUTHORITY**

**ONE MILLION TON CELEBRATION**

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***ONE MILLION***

**by**

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## One Million

A million tons of biosolids  
75% liquid  
Are you thinking of soup?  
Naw, it fluffs like chocolate cake.

One million tons of biosolids  
One bucket at a time  
One incomparable endeavor

Material has to move  
Gary Festa has a leaking hydraulic hose?  
Grab the extra push plate bucket  
1500 cy/day In  
Material has to move  
Brad Yim's air conditioning is out?  
Can't stay in that cab in ammonia-saturated air  
Where's the spare loader?  
600 cy/day Out  
Material has to move  
Operator's Improv  
Hydraulic cylinder down on Steve Mrocheck's bucket?  
Swap rigs with Scott Walker  
The GP is useless outside of Mixing  
16 biosolids trucks daily  
8 amendment trucks daily  
Material has to move  
Loaders dance  
Choreography of cooperation

One million  
One bucket  
One loader down

3 buckets bedding to 2 buckets wood structure  
Michael Butler and Scott Walker preblend 1000 cy/day  
Else it stratifies in the hopper  
150 tn/day of amendment  
Dumped in Active  
No room to receive up front  
Loader the amendment back to Mixing  
Preblend to hopper to pug mill to conveyor 11  
Mixing to active  
Scott Walker hails Nick Eddy to check the quality of the mix arriving in Active

Conveyor 11, Mixing to Active  
No redundancy  
Bearing fail on head pulley?  
Belt ripped?  
Dump it on the floor

Michael Butler pulls feedstocks to Active  
Gary Festa mixes carbon and nitrogen by hand

One million  
One bucket  
One conveyer

Pug mill mixers  
Homogenous mix – love it!  
Paddles, motors, gear boxes  
8 years old and going strong  
Juan Flores and Robert Alquisira stripping rope and twine from mixer augers  
Confined space  
Gas meter and sawsall  
3 brutal hours of work for two  
Cutting tightly wound fiber from paddles and shaft  
Greg Barron, get off your Gator and get your hands down in this mess

One million  
One bucket  
One feedstock with high carbon

Dust settles in a fine grey powder on every surface  
Dust permeates the air, impairs visibility  
Water laid on for dust control slicks the concrete floor,  
Sending the loaders sliding  
Work orders issued every day by Scott Sauls  
-Dust control in Curing  
-Secure the tarp over the trommel screen discharge  
-PM the pressure sensors  
Jose Heredia and Able Medrano blow dust off every angle iron, belt, housing,  
An endless network of conveyors  
Suspended dust at too high a concentration can ignite  
Strict adherence to SOPs ensures a safe workplace  
We have to, to keep Noel Chan off our backs  
Randal Reed maintains the pressure sensors  
Calibrating to read the slightest pressure drop  
Ready to release sodium bicarbonate and nitrogen that would  
Douse the air stream  
Staunch the flames

One million  
One bucket  
One spark

4am to 1:30pm  
Maintenance crew offset  
Prep loaders for the day  
Joe Melton, Nelson Delgado, Steve Dennis, Robert Alquisira, and Juan Flores  
Fuel, lube, and inspect buckets, blowout dust from filters and engines  
Check Belt 11 and all non-redundant equipment

Before operators even arrive  
Hit those bucket pins with 3% moly grease  
4am to 1:30pm  
When do I see my family?

One million  
One bucket  
One early shift

Minimize emissions  
SCAQMD – the strictest air district in the nation  
Compost in a building – great idea!  
Columns on 50 foot centers  
Hit them, the roof comes down  
Can't see through fog  
Lights throw up glare  
Nick Eddy and Gary Festa barely miss  
Go ahead, Jason Racz, show us how to weave through faster  
On a cold day  
Ambient mixes with steam off the piles  
Condensation, rain, fog drops lower  
175 cy/hr  
Move that material blind  
Compost in a building  
Clean air for the public  
Means hazards for our people

One million  
One bucket  
One column

Twin Wildcats side-by-side  
Screening 1000 cy/day  
But they don't  
Wet active material sticks to screens  
What passes balls up, is sticky, won't make good compost  
The weight of the active material tears up the screens  
Hydraulic drive motors fail  
Two years troubleshooting  
Jeff Ziegenbein, Jeff King, and Greg Barron  
Increase the wood ratio, check Scott Saul's production report  
Decrease the wood ratio, Scott, where's that production report?  
Increase aeration, Scott, are you sure you input the right numbers?  
Decrease aeration, production gets worse  
Two years troubleshooting  
Try bigger motors  
Turn the pile before screening  
Spread the pile over aeration vents

Twin Wildcats screening 1000 cy/day  
Made for the dryer material  
Mature compost  
Brad Yim and Steve Mrocheck carrying compost  
Two loaders sharing a constricted space  
Gary Festa and Nick Eddy taking back  
Tripping over each other  
Manuel Noriega, Scott Walker, and Michael Butler carry  
From active to curing, from curing to trommel screens  
150 round trips/day  
Everybody carries  
You didn't take back enough!  
Man, I carried for years!  
1000 cy/day  
Heightens risk of accident  
Accelerates wear and tear on loaders  
Steals the maintenance budget  
Carrying dominates operations  
Hazardous  
Inefficient  
150 round trips/day  
Jeff, Greg, and Jeff exhaust options  
Ask support of Board  
8 years to modify conveyors  
Move feed hopper to center  
Brad Yim and Steve Mrocheck meet a good angle now from anywhere in curing  
Use an ejector bucket to clear the agitator bar  
Automated conveyance from active to curing to screen to loadout  
The way it should be  
8 years to get it right  
Despite the risks  
No serious injuries  
An exemplary safety record  
Twin Wildcats side-by-side

One million  
One bucket  
One nightmare that's finally over

From screening through the soffit to loadout  
All material tested and compliant  
PFRP and VAR met already in active  
54 day footprint  
1<sup>st</sup> in, 1<sup>st</sup> out  
Manuel Noriega on a 644J  
High lift arms loading high side trucks  
A 4-axle scale, all loads are DOT compliant  
600 cy/day out  
Only two trucks today  
Ziegenbein has put a ban on storage, don't even ask  
Drum up some customers fast, John Robison and Arin Boughan

Come on, now, King's checking my KPI  
Gotta manage this inventory

One million  
One bucket  
One erratic truck flow

John Robison follows up on a referral from a Farm Bureau Field Rep  
Tries to sound casual, not desperate.  
You meant to call IERCA yesterday?  
No problem, how many trucks do you need?  
Arin jokes with a farmer he's been working for months.  
One more time, I'll tell you why SoilPro Premium Compost is better  
IERCA has the resources and expertise to sustain a robust quality control system  
Composting indoors means we control our environment  
We're not subject to the unpredictability of Nature  
Our competitors have a much harder time controlling moisture and temperature  
And we screen finer  
The 3/8" screen increases the concentration of nutrients and  
Gives the product that look and feel that you love  
I don't think there's any material left today  
We can pull from storage.  
How much do you need?

After two hours' wait, 8 trucks arrive at once  
Manuel Noriega hustles for 2 hours  
He wants these drivers back  
He wants them to remember the quick, efficient loadout  
Richard Dawson hangs out at the lineup  
Talking to drivers, making sure they have water and access to facilities  
Letting them know how much IERCA values their business  
Manuel and Richard know they're the face of IERCA

One million  
One bucket  
One customer at a time

A 3-acre storage facility  
There's no time limit to store  
But we don't want to keep it  
Gets stinky  
Gets hot spots  
Able Medrano checks the temperature with thermal infrared  
Do you smell smoke?  
Able pours water on smoldering compost  
Manuel Noriega pulls the material out  
Not too fast  
Not too much oxygen  
Able extinguishes expertly  
Manuel lets it cool before feathering a foot or two

One million  
One bucket  
One blaze

How much compost do I need?  
Victoria Stone takes customer calls  
2cy/1000 sf  
Another Board meeting?  
Victoria pulls together the 1-inch thick Board package  
Scheduled trucks haven't arrived?  
Victoria calls dispatch and tracks them down  
SAP receiving, billing, and invoicing  
Keep this place running  
Handle what everyone else overlooks  
A 1 million ton celebration?  
Victoria rents the shade, orders the food, and coordinates logistics

One million  
One bucket  
One organized office

A million tons of biosolids processed  
In the largest indoor composting facility in the country  
Accomplished with vision and technical expertise that earned the  
Santa Ana Basin Engineering Award  
From the California Water Environment Federation, and the  
Leadership in Engineering Award  
From the American Academy of Environmental Engineers  
For taking up the challenge to compost indoors to meet some of the toughest air standards in the nation  
Accomplished with respect for and stewardship of the environment that earned the  
Environmental Award  
From the Environmental Protection Agency's Pacific Region  
For minimizing environmental impacts through the use of solar energy, an air scrubbing biofilter, and  
recycling of waste materials  
Accomplished with innovation that earned the  
Technological Innovation Achievement Award  
From the California Association of Sanitation Agencies, and, the  
Excellence in Composting Systems Award  
From the Solid Waste Association of North America  
For employing and adapting existing technologies to the unique conditions of indoor composting  
Accomplished with leadership and dedication that earned the  
Dave Hardy Leadership in Organics Award  
From the California Resource and Recycling Association, and the  
Composter of the Year Award, and, the  
Excellence in Marketing Program Presentation Award  
Both from the United States Composting Council, as well as the  
Governor's Environmental and Economic Leadership Award  
From California's Governor Brown  
For meeting the highest standards of quality, reliability, and environmental responsibility, while educating  
the public about the benefits of biosolids-derived compost and developing new markets for the beneficial  
use of SoilPro Premium Compost.

1 million tons of biosolids moved through a re-fashioned IKEA warehouse  
Transformed into a nutrient rich product that reconditions soils and reduces irrigation demands  
A milestone achieved with integrity, business savvy, and heart  
A facility blessed with the leadership of Jeff Ziegenbein from Day One, and a  
Board wise enough to give Jeff the freedom and support to implement his vision

One million tons of biosolids  
One bucket at a time  
One hell of a job  
Congratulations