

From: [Craig Williams](#)
To: [IDEM LAREports](#)
Cc: [Craig Williams](#)
Subject: Angola STP October 2016 "A" Report, LA 000762
Date: Wednesday, November 23, 2016 9:19:52 AM
Attachments: [2016.10 Oct LA Report IN000762.pdf](#)
Importance: High

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Angola Municipal STP
Craig Williams, Wastewater Superintendent
IN LA 000762
October 2016



CITY OF ANGOLA

Wastewater Treatment

Physical: 1095 Redding Road
Mailing: 210 North Public Square
Angola, IN 46703-1960

Craig Williams

Phone: 260.624.2699

Fax: 260.624.2699

Cell: 260.905.6123

cwilliams@angolain.org

November 23, 2016

Indiana Department of Environmental Management
OLQ, Solid Waste Permits Section
100 N. Senate Avenue
MC 65-45-IGCN1101
Indianapolis, Indiana 46204-2251

RE: October 2016 Marketing & Distribution Report
City of Angola WWTP
L.A. Permit No. IN LA: 000762

To Whom It May Concern:

Please recognize the enclosed Marketing and Distribution Report for the Angola Wastewater Treatment Plant for the month of October 2016.

If you have any questions regarding this report, please contact me at our facility by telephone, weekdays, during the hours of 7:00AM to 3:30PM.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signed,

Craig A. Williams

Certified Operator WW018478

Wastewater Superintendent

City of Angola

MARKETING AND DISTRIBUTION MONTHLY REPORT FORM

(Complete and submit this form to IDEM 30 days after the last day of each month)

MONTH: October

YEAR: 2016

PERMIT NO.: IN LA 000762

FACILITY NAME: Angola Wastewater Treatment Plant

Month	Dry Tons	Lab. No.
January	0	
February	0	
March	81	1,2
April	273	1,2
May	3	1
June	22	1
July	28	1
August	0	
September	201	1,2
October	28	1
November		
December		

(Lab No. corresponds to lab data entered below)

Class A Pathogen Reduction Method (attach sample results when applicable)

Check appropriate box, give explanation if more than one is applicable

327 IAC 6.1-4-13

<input type="checkbox"/>	Alternative 1	<input type="checkbox"/>	Alternative 4
<input type="checkbox"/>	Alternative 2	<input checked="" type="checkbox"/>	Alternative 5
<input type="checkbox"/>	Alternative 3	<input type="checkbox"/>	Alternative 6

Vector Attraction Reduction Method (attach sample results when applicable)

Check appropriate box, give explanation if more than one is applicable

327 IAC 6.1-15

<input type="checkbox"/>	Option 1 38% VSR	<input checked="" type="checkbox"/>	Option 5 Aerobic
<input type="checkbox"/>	Option 2 Anaerobic/Bench	<input type="checkbox"/>	Option 6 Alkali
<input type="checkbox"/>	Option 3 Aerobic/Bench	<input type="checkbox"/>	Option 7 75% Solids
<input type="checkbox"/>	Option 4 SOUR	<input type="checkbox"/>	Option 8 90% Solids

NOTE: Biosolids distributed in **October 2016** are part of the batch of compost documented on the March 2016 LA Report (Lab 1). All analytical data, pathogen reduction documentation and vector attraction reduction documentation were submitted at that time.

Analytical Results:

Enter heavy metals results as dry weights

Enter detection limit when result is non detectable

Lab Nos.:

	1	2	3	4	5	6	7	8	9	10	11	12
Sample Report Date	6/15/15	02/10/16										
Percent Total Solids	54.9	38.5										
Arsenic (As)	10.9	13.7										
Cadmium (Cd)	0.71	0.90										
Copper (Cu)	184	270										
Lead (Pb)	21.4	24.5										
Mercury (Hg)	0.55	1.04										
Molybdenum (Mo)	5.07	8.93										
Nickel (Ni)	14.7	18.9										
Selenium (Se)	1.71	1.60										
Zinc (Zn)	434	438										

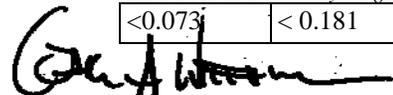
Enter all nutrient results as percent dry weights

Total N (TN)	1.6	1.61										
Ammonium N (NH4-N)	0.02	0.04										
Nitrate N (NO3-N)	0.18	0.08										
Phosphorus (P)	1.59	1.74										
Potassium (K)	0.41	1.48										

Enter PCB results as dry weight

PCB	<0.073	<0.181										
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Signature:



Date: 11/23/2016

Indiana Department of Environmental Management
Solid Waste Permits Section - OLQ
Preparer Certification – Biosolids

>>Complete and retain this form for each month that biosolid marketing and/or distribution activity occurred<<

Month: October Year: 2016
Permittee: Angola Wastewater Treatment Plant Permit No. IN LA: 000762

Indicate by an "X" the method of pathogen reduction and vector attraction reduction below:

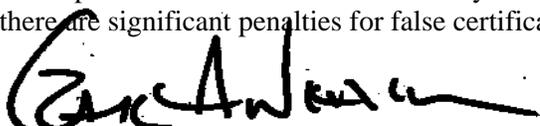
PATHOGEN REDUCTION:

<u>Description</u>	<u>Rule Citation</u>
<input type="checkbox"/> Pathogen Reduction NOT Achieved	
<input type="checkbox"/> Class A	
<input type="checkbox"/> Alternative 1: Thermal Treatment	327 IAC 6.1-4-13(b)(2)(A)
<input type="checkbox"/> Alternative 2: High Temp/High pH	327 IAC 6.1-4-13(b)(2)(B)
<input type="checkbox"/> Alternative 3: Other Processes	327 IAC 6.1-4-13(b)(2)(C)
<input type="checkbox"/> Alternative 4: Unknown Processes/Monitoring	327 IAC 6.1-4-13(b)(2)(D)
<input type="checkbox"/> Alternative 5: PFRP (indicate one below)	327 IAC 6.1-4-13(b)(2)(E)
<input checked="" type="checkbox"/> PFRP 1: Composting	327 IAC 6.1-4-14(b)(1)
<input type="checkbox"/> PFRP 2: Heat Drying	327 IAC 6.1-4-14(b)(2)
<input type="checkbox"/> PFRP 3: Heat Treatment	327 IAC 6.1-4-14(b)(3)
<input type="checkbox"/> PFRP 4: Thermophilic Aerobic Digestion	327 IAC 6.1-4-14(b)(4)
<input type="checkbox"/> PFRP 5: Beta Ray Irridiation	327 IAC 6.1-4-14(b)(5)
<input type="checkbox"/> PFRP 6: Gamma Ray Irridiation	327 IAC 6.1-4-14(b)(6)
<input type="checkbox"/> PFRP 7: Pasteurization	327 IAC 6.1-4-14(b)(7)
<input type="checkbox"/> Alternative 6: PFRP Equivalent	327 IAC 6.1-4-13(b)(2)(F)

VECTOR ATTRACTION REDUCTION:

<input type="checkbox"/> Vector Attraction Reduction NOT Achieved	
<input type="checkbox"/> Vector Attraction Reduction Achieved by Applier	
<input type="checkbox"/> Option 1: 38% volatile solids reduction	327 IAC 6.1-4-15(b)(1)
<input type="checkbox"/> Option 2: Additional anaerobic digestion/bench scale	327 IAC 6.1-4-15(b)(2)
<input type="checkbox"/> Option 3: Additional aerobic digestion/bench scale	327 IAC 6.1-4-15(b)(3)
<input type="checkbox"/> Option 4: SOUR	327 IAC 6.1-4-15(b)(4)
<input checked="" type="checkbox"/> Option 5: Aerobic process >40oC, 14 days or more	327 IAC 6.1-4-15(b)(5)
<input type="checkbox"/> Option 6: Alkali addition	327 IAC 6.1-4-15(b)(6)
<input type="checkbox"/> Option 7: Dry to 75% solids	327 IAC 6.1-4-15(b)(7)
<input type="checkbox"/> Option 8: Dry to 90% solids	327 IAC 6.1-4-15(b)(8)
<input type="checkbox"/> Approved Equivalent	

I certify, under penalty of law that the information that will be used to determine compliance with the pathogen requirement and vector attraction reduction requirement, indicated above, has been prepared under my direction and supervision in accordance with the system designed to gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fines and imprisonment.


Signature

Date 11/23/2016

From: HARMON, JEFF
To: ["Cwilliams@angolain.org"](mailto:Cwilliams@angolain.org)
Subject: October Biosolids M&D Report
Date: Monday, December 05, 2016 1:14:00 PM

Craig

Could you send me a copy of your current user information sheet to file with your October report? I haven't made a point to ask for this but would like to see one occasionally if not with each report and it looks like I haven't seen one for a few months.

Thanks.

Jeff Harmon, Senior Environmental Manager
Indiana Department of Environmental Management
Land Application Program
IGCN 1101
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
Phone: (317) 232-8735
Fax: (317) 232-3403

From: [Craig Williams](#)
To: [HARMON, JEFF](#)
Subject: RE: October Biosolids M&D Report
Date: Tuesday, December 06, 2016 8:46:59 AM
Attachments: [20161206082251027.pdf](#)

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Good morning, Jeff –

This is the current Product Information Sheet. It looks like we ran a second set of analyticals on this batch in June 2016, but it isn't reflected on the Monthly Report for some reason. I will take a look at what happened & follow up on this. My biosolids guy is on vacation this week – I will work on trying to figure this out, but I may not have all of the information until I can speak with him.

I can also make a note to include a copy of the Product Information Sheet with each monthly report.

Have a great week.

Craig Williams, Superintendent
Angola Wastewater Treatment
Secretary/Treasurer - [NIOA](#)
Office – 260-624-2699

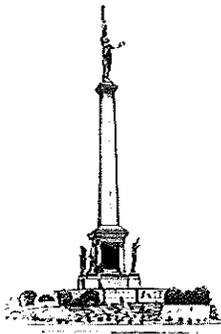
From: HARMON, JEFF [mailto:JHARMON@idem.IN.gov]
Sent: Monday, December 05, 2016 1:14 PM
To: Craig Williams
Subject: October Biosolids M&D Report

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Jeff Harmon, Senior Environmental Manager
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IGCN 1101
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
Phone: (317) 232-8735
Fax: (317) 232-3403



CITY OF ANGOLA

CLASS A EXCEPTIONAL QUALITY COMPOSTED BIOSOLIDS PRODUCT INFORMATION SHEET

Compost Windrow Build Date: January 2016

Compost Distribution Date: June 2016

NUTRIENT DATA

% Solids: 45.4 % on Dry Weight Basis Loading Rates Lbs/Wet Ton

Nitrogen		
Total	2.36	21.4
Kjeldahl	2.25	20.4
Ammonia as N	0.14	1.3
Nitrate as N	0.10	0.9
Phosphorus		
Total	1.28	11.6
As P2O5	2.93	26.6
Potassium		
Total	0.77	6.9
As K2O	0.92	8.3

Analysis Date: 6/21/16

METALS & INORGANICS DATA

% Solids: 45.4 Angola Finished Compost (mg/kg) US EPA Exceptional Quality Maximum (mg/kg)

Arsenic	4.01	41
Cadmium	0.33	39
Copper	94.7	1500
Lead	7.49	300
Mercury	<0.27	17
Molybdenum	2.82	75
Nickel	6.0	420
Selenium	<0.54	100
Zinc	197	2800
PCB's	<0.04	2
Calcium	24900	
Magnesium	6560	

Analysis Date: 6/21/16

The application of composted biosolids is prohibited except in accordance with the guidelines herein. The City of Angola makes no warranty of merchantability or fitness of this compost for any other purpose than that described herein. There is no warranty, expressed or implied, as to the quality or productivity of any compost. Compost, like any other organic or inorganic fertilizer, should be stored in a protected area away from areas which may allow it to be washed into water bodies.

COMPOST INGREDIENTS

- Chipped Tree Trimmings: 30-40%
- Mixed Yard Waste: 30-40%
(Includes grass and leaf litter)
- Dewatered Biosolids: 20-40%

Mix ratios are based on volume, and may vary based on amendment availability and density of materials.

PATHOGEN INFORMATION

Angola Finished Compost IDEM Maximum Level

Fecal Coliform	260	MPN/gram (dry weight)	1000	MPN/gram (dry weight)
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Analysis Date: 6/15/16

Angola Finished Compost IDEM Maximum Level

Helminth Ova	NA	ova/4grams	<1	ova/4grams
Enteric Viruses	NA	PFU/4grams	<1	PFU/4grams

Analysis Date: NA

ADDITIONAL DATA

Provided when available

Angola Finished Compost

Moisture	54.6	%
Bulk Density	1100	lbs/cu yd
pH	7.09	
Specific Conductance	6120	µmhos/cm
Volatile Solids	44	%
Carbon:Nitrogen Ratio	11.3:1	

Analysis Date(s): 6/21/16

See reverse side for additional information!



CITY OF ANGOLA

1095 Redding Road
(Mailing Address: 210 N. Public Sq)
Angola, Indiana 46703

Phone: 260-665-6806
Fax: 260-624-2699
Email: wwtp@angolain.org

ADDITIONAL INFORMATION CAN BE FOUND AT:

www.compostingcouncil.org/education/
cwmi.css.cornell.edu/resources.htm
extension.umd.edu/publications/PDFs/FS501.pdf
www.in.gov/idem/4555.htm

Uses & Application

As with any fertilizer, application rates should be determined based on soil tests. Compost should only be applied with a accepted practices, and always in a safe, nuisance-free manner. The following information provides a general guide for the use of this compost. For reference, a 1/2 ton pickup truck with an 8' bed can hold approximately 1 cubic yard of compost (~ 1000 lbs of compost).

- **Lawn Maintenance:** 1/2 of a pickup truck load of compost is enough to top dress a 5000 square foot yard (50 Lbs PAN/acre).
- **Lawn Establishment:** 2-1/2 pickup truck loads of compost is enough to help start a 5000 square foot yard (300 Lbs PAN/acre). Spread evenly and till compost into 6-8 inches of soil for new yards.
- **Garden Establishment:** For a 1000 square foot garden, till 0.2 cubic yards (about 5 wheel barrows) of compost into 6-8 inches of soil for new yards or gardens (100 Lbs PAN/acre).
- **Shrub and Tree Planting:** Dig a hole that will allow 10% of the root ball to be above ground. The diameter of the hole should be 3 to 4 times the diameter of the root ball, especially in poor soil. Use a 3:1 mix of soil and compost to backfill.
- **Agricultural Applications:** Composted biosolids are a valuable resource in agricultural applications. Application rates should be based on representative soil tests, and based on soil nitrogen availability and crop uptake rates.

The Angola Wastewater Treatment Plant and Angola Street Department are proud to provide you with a superior soil amendment for your use. By choosing Angola Compost, you are supporting a program that makes good economic and environmental sense. Composting dewatered biosolids reduces fuel consumption and handling costs, as well as providing a valuable resource for gardening and law care. Compost is the original "Green" product!

Our compost is produced in strict accordance to the Indiana Department of Environmental Management and US EPA rules for minimum standards for pathogen reduction, vector attraction reduction and metals concentration limits of municipal biosolids. Quality Assurance and Quality Control procedures ensure that our compost is a safe, stable, high-quality soil amendment. Like any organic or inorganic fertilizer, compost should be handled with care... *Wash those hands after use!*

Be a good neighbor! If you are unable to use your compost within 24 hours, protect it from wind and rain by covering it, or storing in an area that is protected.

COMPOST AND ITS BENEFITS¹

Compost is the product resulting from the controlled biological decomposition of organic material that has been sanitized through the generation of heat and stabilized to the point that it is beneficial to plant growth.

Compost is produced through the activity of aerobic microorganisms. These microbes generate heat, water vapor and carbon dioxide as they transform raw materials into a stable soil conditioner.

Compost can greatly enhance the physical structure of soil by resisting compaction, increasing the soils water holding capacity, supplying a variety of

micro and macronutrients, stabilizing soil pH and in many other ways.

Since compost contains relatively stable sources of organic matter, micro and macronutrients are supplied in a slow release form. Compost made from biosolids typically contain higher concentration of these nutrients than peat soils or manures, making it a superior product for providing nutrients.

Side-by-side comparison studies of commercial fertilizer and compost show significantly higher yields and vigorous growth for compost-amended soils.

¹ Information primarily from the US Composting Council, "USCC Factsheet: Compost and Its Benefits", visit www.compostingcouncil.org for more information.