



County of Los Alamos

Staff Report

February 16, 2017

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.:

Index (Council Goals):

Presenters: John Bliss

Legislative File: 9086-17

Title

Approval of the January 19, 2017, Environmental Sustainability Board Minutes

Recommended Action Motion

I move that the Environmental Sustainability Board approve the January 19, 2017, minutes as presented.

Or

I move that the Environmental Sustainability Board approve the January 19, 2017, minutes as amended.

Body

The ESB will review and approve the January 19, 2017, Environmental Sustainability Board Minutes.

Attachments

A - Draft ESB Minutes January 19, 2017



County of Los Alamos

1000 Central Avenue
Los Alamos, NM 87544

Minutes

Environmental Sustainability Board

John Bliss, Chair; Sarah M. Terrill, Susan Barns, Rebecca Chamberlin, Erik Loechell, James Robinson, and Danny Katzman, Members

Thursday, January 19, 2017

5:30 PM

1000 Central Avenue, Suite 110

1. CALL TO ORDER - ROLL CALL

The ESB Chair, John Bliss, called the meeting to order at 5:30 PM.

The following member were in attendance:

Present: Member Terrill, Member Robinson, Member Katzman, Member Barns, Member Loechell, and Member Chamberlin.

Absent: None.

2. PUBLIC COMMENT

None.

3. APPROVAL OF AGENDA

A motion was made by Member Chamberlin, seconded by Member Robinson, that the January 19, 2017 agenda be approved as presented.

The motion was passed unanimously.

4. APPROVAL OF MINUTES

A motion was made by Member Robinson, seconded by Member Barns, that the December 15, 2016 minutes be approved as presented.

The motion passed unanimously.

[8996-17](#)

Approval of the December 15, 2016, Environmental Sustainability Board Minutes

Attachments: [A - Draft ESB Minutes December 15, 2016](#)

I move that the Environmental Sustainability Board approve the December 15, 2016, minutes as presented.

Or

I move that the Environmental Sustainability Board approve the December 15, 2016, minutes as amended.

5. BOARD BUSINESS

8997-17**Election of Environmental Sustainability Chair and Vice-chair**

The nominations for Chair were John Bliss, ESB Chair, and Sarah Terrill, ESB Member. Both accepted the Chair nomination.

Member Robinson moved to close nominations and vote. Closed ballots were given to all members, which resulted in ESB Chair with 4 votes and Member Terrill with 3 votes. ESB Chair, John Bliss, accepted position.

The nominations for Vice Chair were Member Robinson and Member Loechell, which both accepted. The floor was open for more nominations and Member Chamberlin voted to nominate Member Terrill for Vice Chair, which Member Terrill accepted.

Member Robinson moved to close nominations and vote. Closed ballots were given to all members, which resulted with Member Terrill with the most votes. Member Terrill accepted position.

A motion was made by Member Terrill, seconded by Member Robinson, that ESB Chair, John Bliss, be appointed Chair for the Environmental Sustainability Board.

The motion passed unanimously.

A motion was made by Member Robinson, seconded by Member Loechell, that Member Terrill be appointed Vice Chair for the Environmental Sustainability Board.

The motion passed unanimously.

8999-17**Food Waste Diversion Discussion**

ESB member, Sue Barns, presented on Food Waste Diversion to the ESB.

9002-17**Develop Draft FY18 ESB Work Plan**

Attachments: [B - FY17 ESB Work Plan](#)

The FY18 ESB Work Plan was reviewed and drafted by all ESB members. The ESB will vote on the FY18 ESB Work Plan at the next ESB meeting, which will then be submitted to the County Council.

6. REPORTS**A. Chair's Report - John Bliss**

ESB Chair, John Bliss, updated the ESB that he will report to the County Council on February 14, 2017 about the Brush and Bulk Collection.

B. Board Member Reports**C. Liaison's Reports**

1). Board of Public Utilities - Sue Barns

Sue Barns, ESB Member, reported that another presentation was given on the decision process about the Small Modular Reactor project. The County is being asked to fund this project for further development.

2). Planning and Zoning Commission - James Robinson

No report.

3). Transportation Board - Rebecca Chamberlin

No report.

4). Parks and Recreation Board - Erik Loechell

Erik Loechell, ESB member, reported that the Parks and Recreation Board discussed a proposed RV camping site at the Main Gate with amenities, expansion of Camp May, repurposing all the unused tennis courts so the land can be used for something else, and potentially the building of a flow trail for mountain biking from the top of Pajarito mountain down to the Y in White Rock.

5). County Council Liaison - James Chrobocinski

No report.

7. STAFF REPORT

[9008-17](#)

December 2016 Residential Sustainability Report

Attachments: [C - Residential Sustainability Report - December 2016](#)

Angelica Gurule, Staff Liaison, presented the Residential Sustainability Report to the ESB.

8. PREVIEW OF UPCOMING AGENDA ITEMS

Environmental Sustainability Plan Update
Food Recycling Presentation by Walter Dod
Upcycling Musical Instruments by Michelle Rosette
Review and Approve the FY18 Work Plan
Eco Station Financial Update
NMED Annual Report Update
Converting Organic Material to Energy Presentation by Charlie Bowman

9. ADJOURNMENT

A motion was made by Member Chamberlin, seconded by Member Robinson, that the meeting be adjourned.

The meeting adjourned at 7:30 PM.

If you are an individual with a disability who is in need of a reader, amplifier, qualified sign language interpreter, or any other form of auxiliary aid or service to attend or participate in the hearing or meeting, please contact the County Human Resources Division at 662-8040 at least one week prior to the meeting or as soon as possible. Public documents, including the agenda and minutes can be provided in various accessible formats. Please contact the personnel in the Community Services Administration Office at 662-8163 if a summary or other type of accessible format is needed.



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Legislative File: 9108-17

Title

Fancy Fiddle Auction - An Instrumental Upcycling Presentation

..Suggested Motion

N/A

Body

Dozens of fancifully decorated string instruments will be auctioned at a special event on Saturday, February 18th at 2:00 pm in Fuller Lodge. The Fancy Fiddle Auction, a benefit for the orchestra program in the Los Alamos Public Schools, is the brainchild of a group of volunteers and artists who wanted to save the instruments from being destroyed.

All the instruments were owned by the Los Alamos Public Schools and had been loaned or rented to students in decades past. They were in such poor condition that repairs would have been either impossible or far too costly. With a complete renovation of the Los Alamos High School music wing approaching, all the instruments needed to be cleared from the building. The plan was to send them to the local landfill. LAHS orchestra teacher Michelle Rosette and Ann McLaughlin, Artistic Director of the Los Alamos Concert Association, delivered nearly 50 violins, violas, cellos and basses to Village Arts Framing where owner Ken Nebel distributed them to local artists. Those artists worked their magic and then donated their work back to the project.

The Los Alamos Public Schools Foundation will hold the auction proceeds in a fund that will be used to purchase much-needed equipment for the LAPS orchestra program. Successful bidders will be able to claim tax deductions for their purchases as the LAPS Foundation is a 501c3 non-profit organization.

Over 400 young musicians from elementary through high school participate in the string instruction the LAPS orchestra program provides. The list of needs for that program includes everything from a baby grand piano to sound and recording equipment to metronomes. A silent auction is underway now at Village Arts Framing where the instruments are on display. The auction will wrap up at the Fuller Lodge event on February 18th. Selected items will be auctioned live at that event with auctioneer Jeff Favorite. The Bridge, a Los Alamos High School chamber ensemble, will entertain and light refreshments will be provided. Admission to the event is free.

Attachments

F - Fancy Fiddles Flyers

Silent and Live Auction



Fancy Fiddles **AUCTION**

To benefit the Los Alamos Public Schools
Orchestra Program in partnership
with the LAPS Foundation

Fuller Lodge

***Saturday
February 18th
2-4 pm***

**Over 40 fabulous violins, violas,
cellos & basses for sale!**

Free Admission



Can't attend? See the instruments and place your bids
at Village Arts now or visit www.villageartsframing.com.



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Index (Council Goals):

Presenters: John Bliss

Legislative File: 9107-17

Title

GEM*STAR Demonstration Subcritical Reactor for Los Alamos County

...Suggested Motion

N/A

Body

Charles Bowman will present to the ESB about the GEM*STAR Demonstration Subcritical Reactor for Los Alamos County.

..Attachment

E - GEM*STAR Demonstration Subcritical Reactor Presentation for Los Alamos County

**GEM*STAR Demonstration Subcritical
Reactor for Los Alamos County**

to

**Environmental Sustainability Board
County of Los Alamos
February 16, 2017**

from

**Charles D. Bowman, President
ADNA Corporation
Accelerator Driven Neutron Applications
Los Alamos, NM
Formed February 1997**

Proposal to Los Alamos National Laboratory

from

ADNA Corporation

Accelerator Driven Neutron Applications

Los Alamos, NM

Formed February 1997

for

LANSCe Beam Servicing Three NNSA/DOD Needs:

New Start tritium requirement

Demo W-Pu burning upholding U. S. Russia Treaty

100 % renewable diesel for the DOD

ADNA Corporation Proposal

Tritium production for New Start stockpile support (600 g/y)

***Demonstration* for burning 34 tons of W-Pu required by
U. S.- Russian treaty at no cost to NNSA (50 kg/year)**

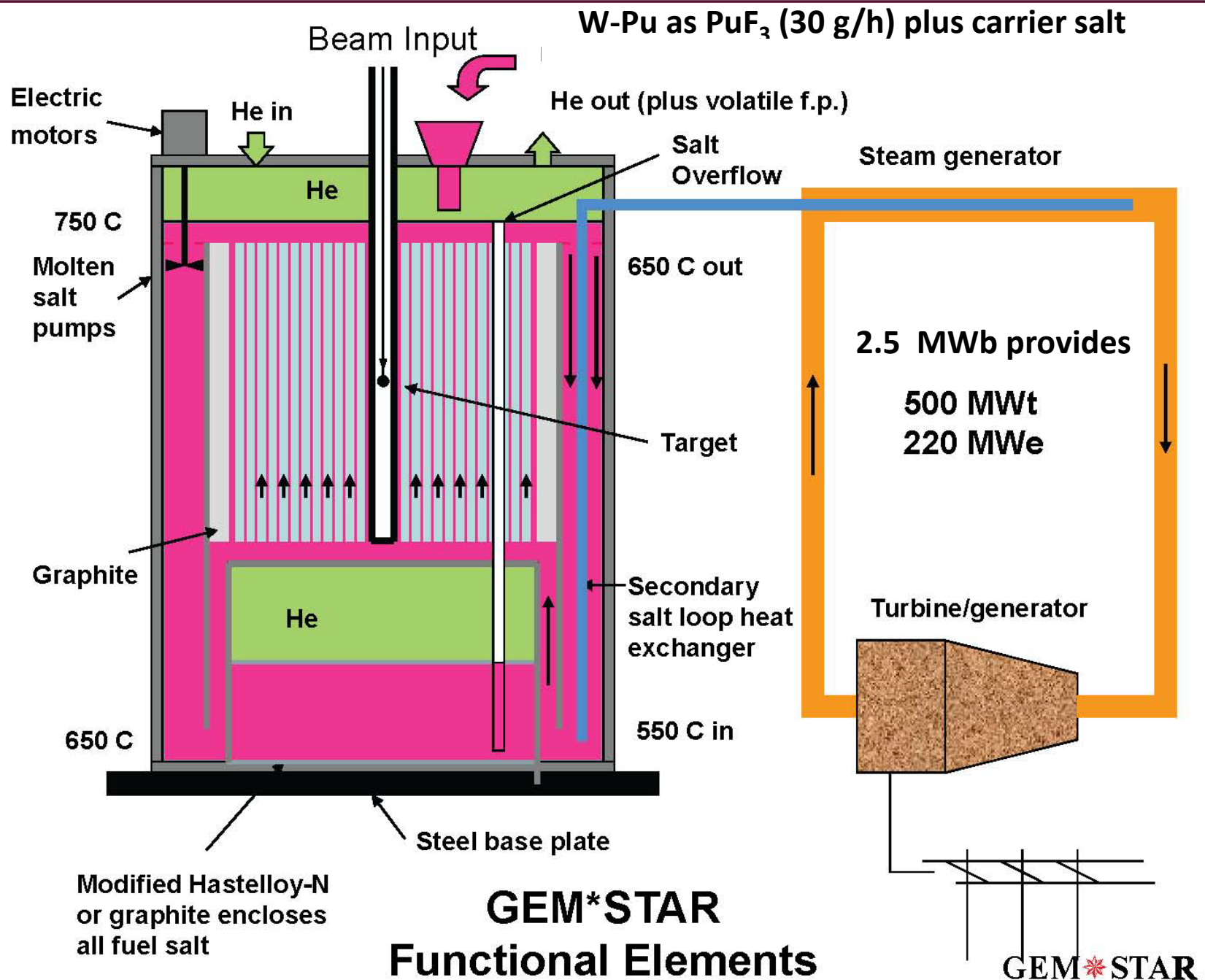
**Production of 75 million gallons per year of 100% renewable
diesel from byproduct cellulosic materials (wood refuse)**

**Thirty years of LANSCE beam to ADNA with all current
LANSCE programs continuing**

**ADNA capital into LANL TA-53 \$280 million with 20 % from
Investors and an 80 % small business loan at 6 % over 30 years**

No *capital* cost from NNSA for tritium or W-Pu burning capability

**Five percent of private investment already committed
placing a present value on ADNA Corporation of \$12.5 million**



GEM*STAR Burns W-Pu Without U or Th

34 Tons in 30 Years

Hourly fill:

30 g W-Pu
as PuF_3 +
carrier salt

Inflow W-Pu:

93 % ^{239}Pu
7 % ^{240}Pu

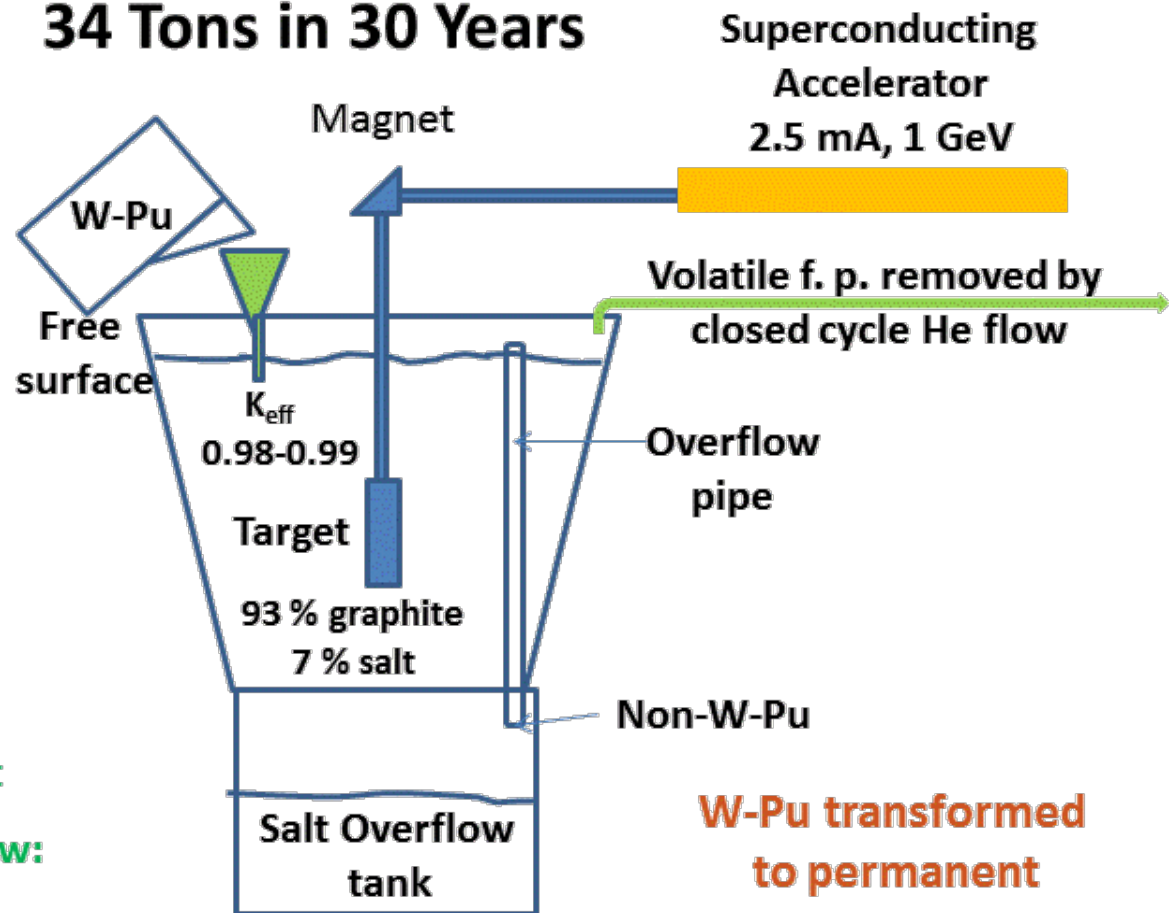
Hourly overflow:

7.5 g as PuF_3 +
carrier salt +

22.5 g of fission product

Non-weapons Pu Outflow:

52.4 % ^{239}Pu
25.4 % ^{240}Pu
10.6 % ^{241}Pu
11.7 % ^{242}Pu



Fission power 500 MWt
Requires four units like this
driven by one 10 mA accelerator

**W-Pu transformed
to permanent
non-weapons Pu
immediately upon
adding and mixing**

ADNA Corporation Advances and Implementations 1997 to 2016

Molten salt continuous flow*

Vector graphite for higher moderator performance*

Indirect spallation target*

Lower proton energy with same neutron efficiency

More efficient target cooling

Much longer target life

Cellulosic biomass to 100 % renewable diesel*

UF₄ fuel and viability of unlimited ocean uranium*

⁷Li isotopic separation by centrifugation*

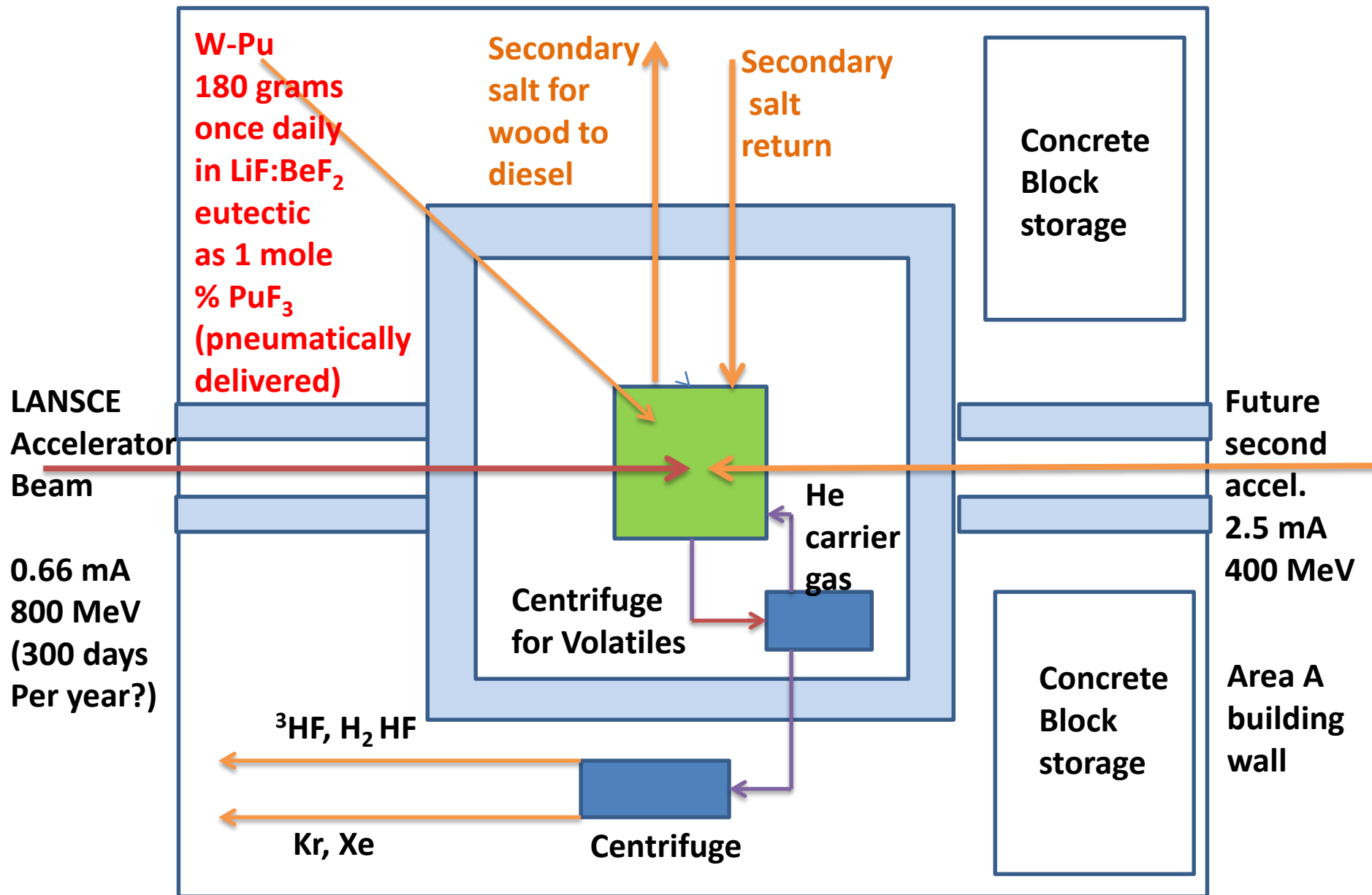
Superconducting accelerator gradient to 10 MeV/m

Doubling efficiency of r. f. power generation

*** ADNA Patents in Process**

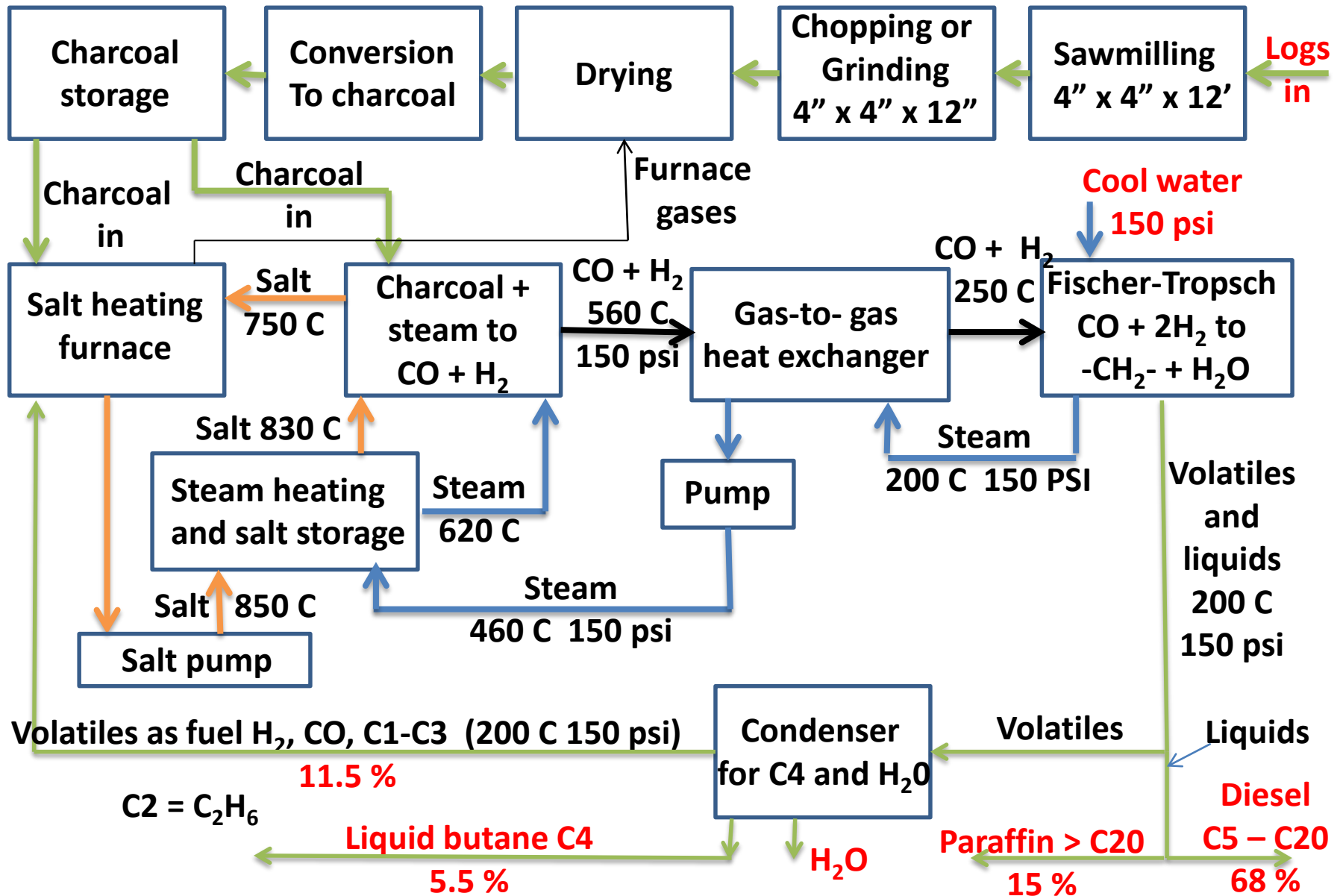
ADNA's GEM*STAR Subcritical Demo 125 MWt

75 million gal. diesel/year + 600 grams tritium/year





Wood to 100 % Renewable Liquid Fuels



ADNA's GEM*STAR Demo Economics

Demo Income

75 million gal/y of renew. diesel @ \$2.50/gal	\$188 million
600 grams per year of tritium @ \$30k/gram	<u>18 million</u>
Total	\$206 million

Demo Operations

Labor costs for reactor and diesel	
Average \$83.00/hr for 150 workers 2000 hr/y	25 million
Loan repayment \$232 million @6% for 12 years	26
Wood input for 75 million g/y diesel	65
\$0.43/gallon wood delivery price	
\$0.43/gallon wood processing price	
NM Gross Receipts tax @ 7.5 % on ADNA Corp.	<u>15</u>
Total	\$131 million

Net \$75 million/year

GEM*STAR at LANSCE Economics If W-Pu Unavailable

Adjustment: Use natural uranium fuel instead	
Agreement: if NNSA provides no W-Pu, the \$55 million is not due	
Requires : 0.1 tons ⁷Li per year at 0.999 isotopic purity	\$ 1.0 M
Consumes: 3.7 tons per year of natural UF₄	0.5
Eliminates: Cost of W-Pu 10 million/year eliminated	10.
Result: Production rate and cost of 100 % renewable diesel about the same as with burning W-Pu	
Loss: Tritium production and sale to NNSA	
Gross income from diesel	\$188
Operations costs	<u>143</u>
Annual return on a \$58 million investment	\$ 45 million
With P/E ratio of 15, ADNA Corp. value in 2022	\$675 million

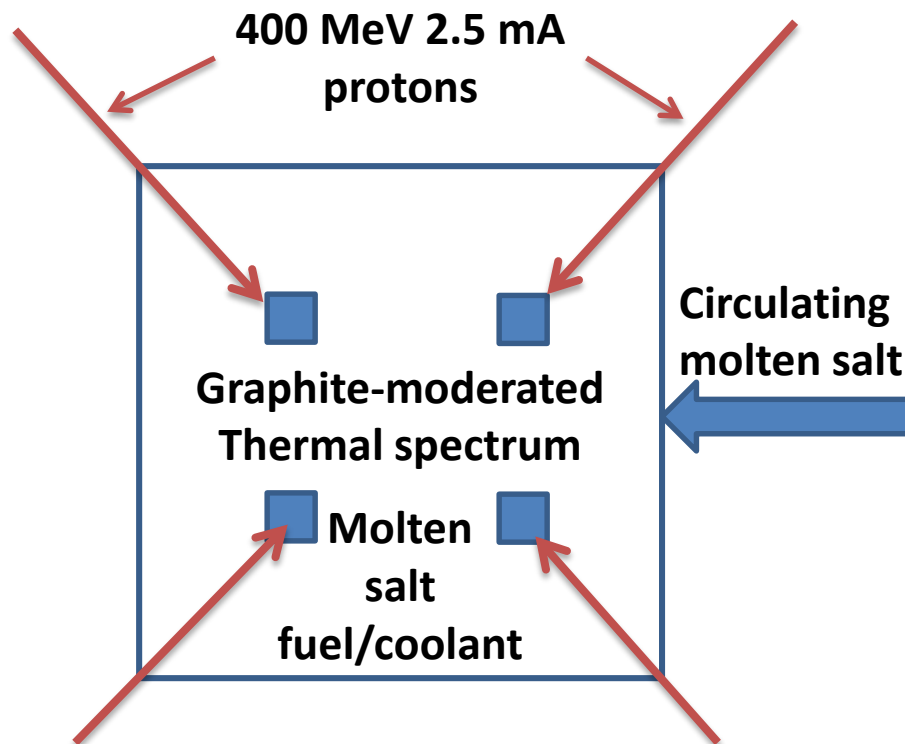
For Private investor:

**ADNA Corp. investment at LANSCE remains attractive even if
W-Pu is not made available for tritium production**

Standard GEM*STAR Module at 500 MWt

With four super conducting proton accelerators and four targets

Same graphite reactor size as at LANSCE



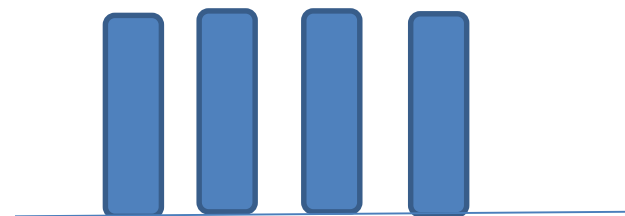
220 MWe

\$96 million/year gross

@ 6 cents/kwh



Or



LANSCE Accelerator

800 MeV

1 MeV/meter

1000 meter length

0.8 MW beam power

15 % bussbar to beam

GEM*STAR accelerator

400 MeV

10 MeV/meter

50 meter length

1.0 MW beam power each

50 % bussbar to beam

300 million gal./year diesel

100 % renewable

\$750 million/year gross

@ \$2.50 per gallon

GEM*STAR W-Pu Burning at TA-21

Subcritical core same size as LANSCE Demo

Four accelerators for 2.5 mA protons at 400 MeV

Total accelerator power 8 MWe

Fission power 500 MWt (about 1/8 of a new LWR)

Tons of W-Pu burned in 40 years is 8.5 tons

**Forest fire wood input per year 5.1 million tons
from 200,000 burned acres**

Western forests burned per year 130 million acres

Remnant charred logs per year 3 billion tons

300 million gallons of diesel per year selling for \$2.50/gal

Gross receipts tax of \$56 million on \$750 millions sales

600 employees at TA-21

1000 employees in northern NM forests

With enriched ^7Li , tritium recovery low and uneconomic

W-Pu Burning Options

	LANSCE	Green field	Green field
	66 % of beam	initial	expanded
	125 MWt	125 MWt	500 MWt
Capital			
Investment	\$ 56	\$101	\$129
Loan 6%, 12 years	<u>\$224</u>	<u>\$404</u>	<u>\$516</u>
Total	\$280 million	\$505 million	\$645 million
Income			
diesel	\$188 million/y	\$188 million/y	\$750 million/y
W-Pu (50 Kg/y)	00	00	00
tritium (600 g/y)	<u>18</u>	<u>18</u>	<u>72 (2400 g/y)</u>
Total*	\$206 million/y	\$206 million/y	\$822 million/y
Operations costs	\$124 million/y	\$150 million/y	\$600 million/y
Net income	\$ 82 million/y	\$ 56 million/y	\$222 million/y
Ann. Net/Investment	1.5	0.55	0.97
Value P/E ratio of 15 [#]	\$1.2 billion	\$0.84 billion	\$3.3 billion
Value/Invest. (5 years)	21	8	14

*100 % renewable diesel @ \$2.50/gal; Tritium @ \$30,000/g;

After 5 years 2022

GEM*STAR Cost Components for W-Pu Burning

	LANSCCE	Green Field Phase I	Green Field Phase II Add.
Elements	125 MWt	125 MWt	500 MWt
Building cost	\$ 000 million	\$75 million	\$ 25 million
Accelerator cost	000	150	450
Reactor cost	130	130	70
Diesel facility cost	<u>150</u>	<u>150</u>	<u>450</u>
Capital total	\$280 million	\$505 million	\$995 million
Annual operating costs			
⁷LiF	\$ 1 million	\$ 1 million	\$ 4 million
W-Pu (PuF₃)	10	10	20
Labor	25	35	75
Gross receipts tax 7.5 %	20	20	65
Accelerator beam	30	0	0
Area A building and infra.	15	0	0
Debt retirement 6 % 30 years	16	26	63
Electricity	0	3	9
Byproduct wood	<u>65</u>	<u>65</u>	<u>260</u>
Operation total	\$182 million	\$160 million	\$496 million

GEM*STAR Burn-up of 34 tons of W-Pu for Diesel

LANSCCE Burn-up Demo
50 kg/y, 75 M gal./y and Start II tritium

LANL
Area TA-21
200 kg/y 300 M gal/y

SRS
Aiken /SC
200 kg/y, 300 M gal./y

Residual salt
12 % ^{242}Pu
retained by
ADNA Corp.
for
future reburn

ORNL
Oak Ridge, TN
200 kg/y, 300 M gal/y

Hanford
Tri Cities, WA
200 kg/y, 300 M gal./y

INEL
Idaho Falls, ID
200/kx/y, 300 M gal/y

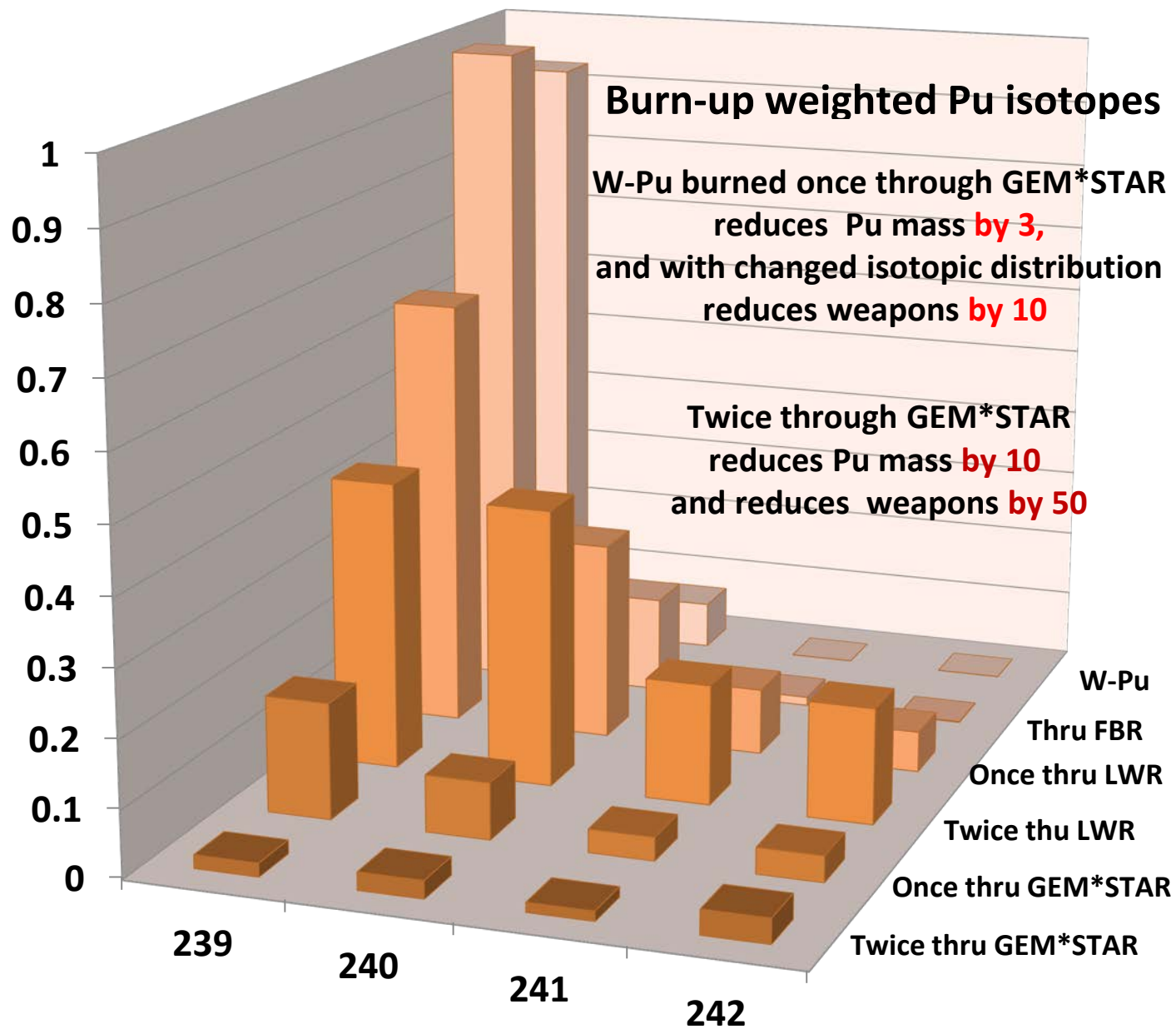
Life cycle

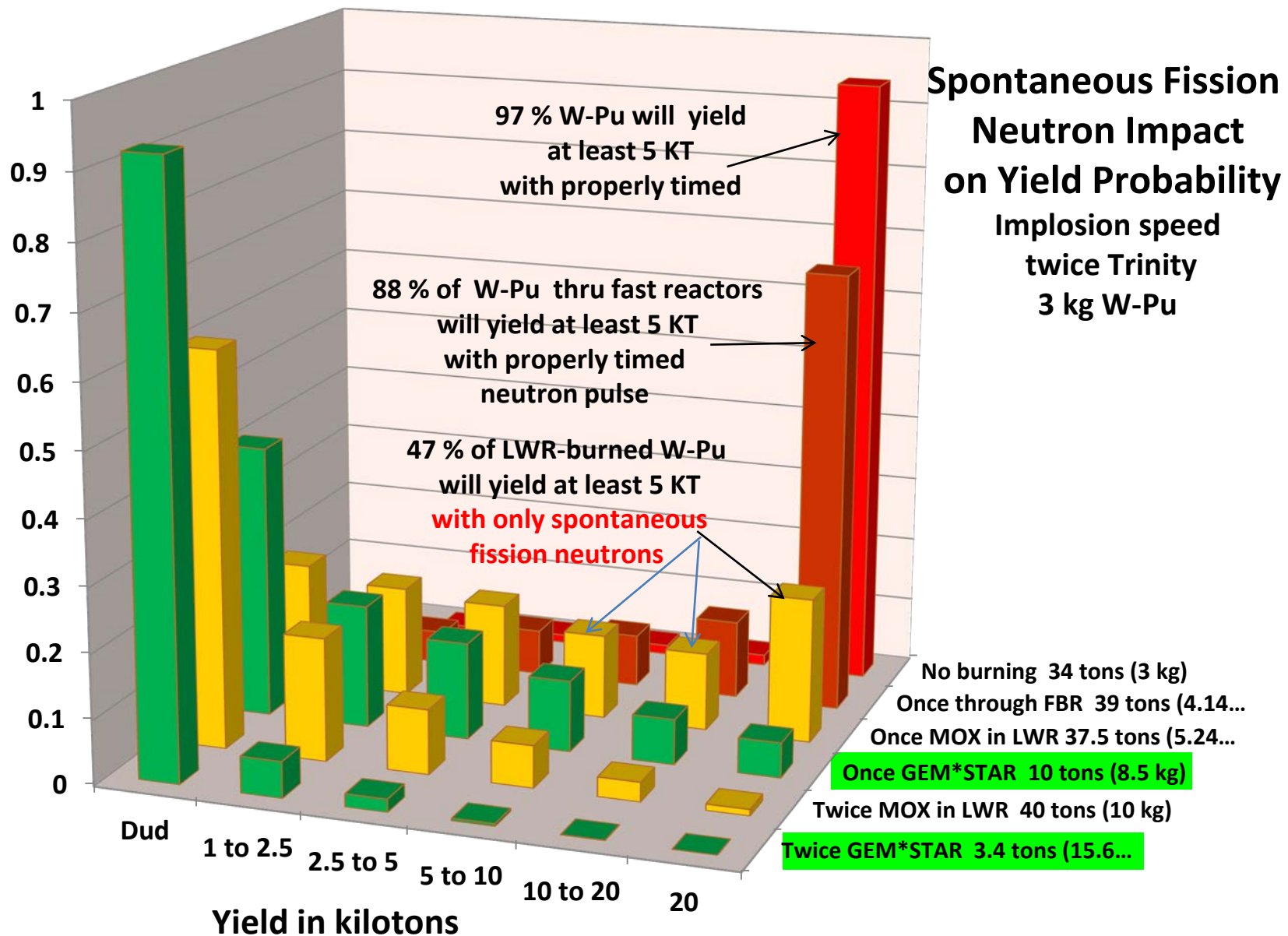
34 tons W-Pu burned in 34 years; Diesel selling for \$122 B;
Start II tritium; 5000 new ADNA jobs

Where is ADNA Corporation Headed with GEM*STAR

Demo of W-Pu burning at LANSCE for 600 g/y tritium for NNSA and 75 million gal/y of 100% renewable diesel for the DOD	2022
Eight standard 500-MWt GEM*STAR units each burning 200 kg/y of W-Pu at DOE/DOD green field sites for a total of 2.4 billion gal/y of 100 % renewable diesel for the DOD. 34 tons burned in 21 years	2027
NRC licensing for GEM*STAR for diesel sale into the commercial sector	2028
Operation of the first GEM*STAR on the site of a closed LWR at 500 MWt burning natural UF ₄ for 300 million gal/y	2029
Beginning conversion of LWR spent fuel from oxide to fluoride salt at the modified SRS MOX plant	2030
Operation of the first GEM*STAR for burning LWR spent fuel on an existing LWR site	2031
Completing the burning of 100,000 tons of U. S. LWR spent fuel in 600 GEM*STARs for 180 billion gal/y of 100 % renewable diesel and gasoline (all of U. S. liquid fuel consumption) from byproduct biomass	2071

Other potential GEM*STAR fuels include naval reactor spent fuel, ocean uranium, depleted uranium, and thorium





LANL-NNSA-DOD Benefits from LANSCE Accelerator

NNSA life-cycle cost for burning 34 tons of W-Pu

In commercial LWR using SRS- MOX	\$50 billion
No-burning storage at WIPP	\$17 billion
ADNA Corporation	\$00 billion

W-Pu Burning Options

	LANSCCE 66 % of beam 125 MWt	Green field initial 125 MWt	Green field expanded 500 MWt
Capital			
Investment	\$ 56	\$101	\$129
Loan 6%, 12 years	<u>\$224</u>	<u>\$404</u>	<u>\$516</u>
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*100 % renewable diesel @ \$2.50/gal; Tritium @ \$30,000/g;

After 5 years 2022



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Agenda No.:

Index (Council Goals):

Presenters: John Bliss

Legislative File: 9112-17

Title

Discuss the Outcome of the Brush and Bulk Item Recommendation Presentation Provided to County Council

..Suggested Motion

N/A

Body

The ESB presented the recommendation for the brush and bulk item collection program to County Council on February 14. The ESB will discuss the outcome and a path forward.

Attachments

N/A



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Agenda No.:

Index (Council Goals):

Presenters: John Bliss

Legislative File: 9088-17

Title

Finalize and Approve the FY18 ESB Work Plan

.Recommended Action Motion

I move that the Environmental Sustainability Board approve the FY18 ESB Work Plan as presented.

Or

I move that the Environmental Sustainability Board approve the FY18 ESB Work Plan as amended.

Body

The ESB will finalize and approve the FY18 ESB Work Plan.

Attachments

B - FY18 ESB Work Plan

C - Council's Strategic Goals



LOS ALAMOS
where discoveries are made

DRAFT FY18 Work Plan for Los Alamos County Boards and Commissions

(Fiscal Year 2018: July 1, 2017 – June 30, 2018)

Board and Commission Name: Environmental Sustainability Board

Date prepared: January 19, 2017 Date approved by Council: _____
Prepared by: Angelica V. Gurule

This work plan will be accomplished in the following time frame:
From: July 1, 2016 to June 30, 2017

Chairperson: John Bliss Term: July 31, 2018

Members and terms:

John Bliss	July 31, 2018
Sarah Terrill	July 31, 2018
James Robinson	July 31, 2017
Sue Barns	July 31, 2018
Rebecca Chamberlin	July 31, 2018
Danny Katzman	July 31, 2017
Erik Loechell	July 31, 2018

Department Director: Philo S. Shelton III

Work plan developed in collaboration with Department Director?(Y/N?) Yes

Staff Liaison: Angelica Gurule

Administrative Support provided by: Public Works Staff

Council Liaison: Pete Sheehey Reviewed by Council Liaison? No

1.0 Provide a brief Summary of your Board or Commission’s activities over the past twelve months. Please describe your Board or Commission’s accomplishments and identify constraints. List any “lessons learned” and identify the greatest challenges faced by the Board or Commission.

Researched and identified alternatives regarding the brush and bulk collection program
Conducted public hearings regarding brush and bulk item collection
Presented final recommendation to County Council regarding brush and bulk item collection
Evaluated a third bin option for green waste collection
Conducted two residential waste stream audit
Deployed bear resistant dumpsters and bear resistant hardware for residential roll carts
Hosted presentation regarding bear awareness
Created definition of environmental sustainability
Conducted annual LA Clean Up Day
Updated and presented the Environmental Sustainability Plan to County Council
Conducted Recycle Fashion Show
Awarded fourth and fifth annual Business Recycler of the Year
Awarded sustainability oriented science fair projects
Performed public outreach at Energy Efficiency Expo, LAC Green Team Event, Earth Day and Science Fest
Supported the Environmental Sustainability Initiative
Investigated recycle incentive programs
Investigated food waste diversion opportunities
Investigated Pay as You Throw
Investigated waste to energy concepts
Hosted a public information session with Friedman Recycle Company
Conducted sustainability art contest with Los Alamos Public Schools

2.0 Describe the future work plans for this Board or Commission using the following items and showing the relationship to those items: *(Please remember that Council approval of this work plan does not constitute official Council approval of proposed projects, assignments, or anticipated recommendations included in this work plan that have budget implications.)*

2.1 List any special projects or assignments given to this Board or Commission by Council or the Department director:

- Host annual LA Clean Up Day
- Continue researching pay as you throw
- Implement Bike to Work week
- Investigate recycle incentive based programs such as Recycle Bank

2.2 List the guiding documents/plans (with approval or revision dates listed) used by this Board or Commission.

Environmental Sustainability Initiative

Environmental Sustainability Plan

NMED Solid Waste Rules

Los Alamos County Operation Plan

The Environmental Services Division prepares the NMED Annual Report that is an overview of all the waste streams and corresponding weights. For example waste, construction and demolition, electronics, glass, etc. The reports are due February 14th of each year.

2.3 Other projects/assignments proposed by the Board or Commission: (Any projects or activities proposed in this section should be discussed with the Council Liaison prior to listing it in this work plan.)

Update Environmental Sustainability Plan

Participate in Bear Festival to promote bear safety awareness

Develop and promote food waste minimization educational materials

Develop and implement environmental education and outreach

Monitor composting program

Research Pay as You Throw

Expand and improve Business Recycler of the Year award

Further develop partnerships with organizations such as PEEC, LAPS, and UNM-LA

Work with LAPS to educate and implement waste diversion programs including reduce, recycle, reuse and composting

Continue researching other glass recycling options

Implement Technical Widget Award which promotes sustainability

Develop Utility Bill Information Letters

Demonstrate solar photovoltaic systems

Host and potentially expand Recycle Fashion Show and form a committee of community partners to host/sponsor the event

Host workshop to create sustainable gifts and/or artwork

Investigate potential for food waste collection

Continue to investigate Waste to Energy Methods

3.0 Identify any interfaces for the goals/tasks in this work plan with County Departments and other Boards and Commissions. Specify the coordination required.

Continue to nurture and strengthen relationship with BPU to support energy and water conservation.

Partner with parks and recreation board on water conservation for potential splash pad features and other water features.

Continue outreach to other county boards and commissions regarding environmental sustainability.

4.0 List any special public information or involvement meetings or efforts to be conducted by this Board or Commission:

Earth Day
Bear Festival
Gordon Concert
Green Team Event
County Fair Event
Science Fest
Recycling workshops or lectures at PEEC and Los Alamos clubs

5.0 List the current subcommittees for this Board or Commission.

None at this time.

**5.1 For subcommittees with members that are not members of the parent board or commission:
List the subcommittee members and their terms.
Explain how sub- committee members are selected or appointed.
Provide a description of each subcommittee's charter or purpose.
Describe the expected duration for the subcommittee and their work plan(s) demonstrating how they support the Board or Commission:**

Attachment A: Provide a copy of your Board or Commission's "Purpose" and "Duties and Responsibilities" from Chapter 8 of the County Code:

- **Sec. 8-231. - Purpose.** The environmental sustainability board is established to serve as the central point of contact for environmental sustainability issues and as an advisory body to the county council on environmental sustainability issues.

(Ord. No. 02-078, § 2, 10-3-2006; Ord. No. 02-094, § 2, 6-10-08)

- **Sec. 8-232. - Membership, terms and qualifications.** The board shall consist of seven members. The members shall serve for staggered two-year terms beginning on August 1 and ending on July 31, except that three members on the initial board shall only serve for one-year terms.

(Ord. No. 02-078, § 2, 10-3-2006; Ord. No. 02-094, § 3, 6-10-08)

- **Sec. 8-233. - Duties and responsibilities.** The environmental sustainability board shall serve in an advisory capacity to the county council and shall have the following functions, responsibilities and duties:
 - (1) Gather and provide citizen input to staff and council on ways to improve the county's environmental sustainability and on proposed environmental sustainability policies, programs and services. For this purpose, the board shall gather public input in ways appropriate to the circumstances.

- (2) Recommend ways to involve and educate the community on environmental sustainability issues. Review and comment on public involvement and information plans (PIIPs) related to environmental sustainability projects outside the department of public utilities.
 - (3) Review and comment to council on environmental sustainability master plans.
 - (4) Review all environmental sustainability related matters submitted to the board by council.
 - (5) Coordinate with other boards as appropriate on environmental sustainability activities.
- (Ord. No. 02-078, § 2, 10-3-2006; Ord. No. 02-094, § 4, 6-10-08)

Attachment B: Using the chart below, place an X in the column on the right if the Council Goal is related to the work of the Environmental Sustainability Board

Mark all that apply

Economic Vitality		
<u>Financial Sustainability/Economic Vitality:</u>		
<ul style="list-style-type: none"> • Priority Area – Maximize our opportunity with respect to the development of the Manhattan Project National Historical Park 		
<ul style="list-style-type: none"> • Promote a strong and diverse economic base through support of the current business base, recruiting additional businesses and encouraging new business growth 		
<ul style="list-style-type: none"> • Collaborate with Los Alamos National Laboratory as the area's #1 employer, and support associated spinoff businesses 	X	
<ul style="list-style-type: none"> • Market and brand Los Alamos as a scenic destination featuring recreation, science and history, 		
<ul style="list-style-type: none"> • Encourage the retention of existing businesses and assist in their opportunities for growth 		
<ul style="list-style-type: none"> • Support spinoff business opportunities from LANL 		
<ul style="list-style-type: none"> • Significantly improve the quantity and quality of retail and tourism business 		
<ul style="list-style-type: none"> • Attract new tourism related business 		
<ul style="list-style-type: none"> • Revitalize and eliminate blight in the downtown areas of Los Alamos and White Rock 		
Quality of Life		
<u>Education:</u>		
<ul style="list-style-type: none"> • Support Los Alamos Public Schools' goal of ranking among the top public schools in the nation 		
<ul style="list-style-type: none"> • Partner with Los Alamos Public Schools and support, as appropriate, the delivery of their educational services to community standards 		
<ul style="list-style-type: none"> • Support the development of quality career, and life-long educational institutions 		
<u>Quality Cultural and Recreational Amenities:</u>		
<ul style="list-style-type: none"> • Create and Implement a comprehensive recreational and cultural plan that includes a range of amenities that support all segments of the Los Alamos community 		
<u>Environmental Stewardship:</u>		
<ul style="list-style-type: none"> • Enhance environmental quality and sustainability balancing costs and benefits 	X	
<u>Mobility:</u>		

	<ul style="list-style-type: none"> • Maintain and improve transportation and mobility 	
	<u>Housing:</u>	
	<ul style="list-style-type: none"> • Priority Area -- Promote the maintenance and enhancement of housing stock quality while utilizing available infill opportunities 	
	<ul style="list-style-type: none"> • Promote the creation of a variety of housing options for all segments of the Los Alamos community 	
	<ul style="list-style-type: none"> • Support development of affordable workforce housing 	

Quality Governance		
	<u>Operational Excellence:</u>	
	<ul style="list-style-type: none"> • Priority Area – Simplify permit requirements and improve the overall process 	
	<ul style="list-style-type: none"> • Maintain quality essential services and supporting infrastructure 	X
	<ul style="list-style-type: none"> • Invest in staff development to create a high performing organization 	
	<ul style="list-style-type: none"> • Manage commercial growth well following an updated, concise, and consistent comprehensive plan 	
	<u>Communication:</u>	
	<ul style="list-style-type: none"> • Priority Area - Create a communication process that provides measurable improvement in citizen trust in government 	
	<ul style="list-style-type: none"> • Improve transparency in policy setting and implementation 	
	<u>Intergovernmental Relations:</u>	
	<ul style="list-style-type: none"> • Strengthen coordination and cooperation between County government, LANL, and the regional and national partners 	

Attachment B: Using the chart below, place an X in the column on the right if the Council Goal is related to the work of the _____ Board or Commission:

Mark all that apply

Economic Vitality		
	<u>Economic Vitality:</u>	
	<ul style="list-style-type: none"> • Priority Area – Build the local tourism economy 	
	<ul style="list-style-type: none"> • Priority Area - Revitalize and eliminate blight in Los Alamos and White Rock 	
	<ul style="list-style-type: none"> • Promote a strong and diverse economic base by encouraging new business growth 	
	<ul style="list-style-type: none"> • Collaborate with Los Alamos National Laboratory as the area's #1 employer 	
	<u>Financial Sustainability</u>	
	<ul style="list-style-type: none"> • Encourage the retention of existing businesses and assist in their opportunities for growth 	
	<ul style="list-style-type: none"> • Support spinoff business opportunities from LANL 	
	<ul style="list-style-type: none"> • Significantly improve the quantity and quality of retail business 	
Quality of Life		
	<u>Housing:</u>	
	<ul style="list-style-type: none"> • Priority Area -- Promote the creation of a variety of housing options for all segments of the Los Alamos Community, including infill opportunities as appropriate 	
	<ul style="list-style-type: none"> • Priority Area -- Support development of affordable workforce housing 	
	<u>Education:</u>	
	<ul style="list-style-type: none"> • Support Los Alamos Public Schools' goal of ranking among the top public schools in the nation 	
	<ul style="list-style-type: none"> • Partner with Los Alamos Public Schools and the University of New Mexico – Los Alamos; and support, as appropriate, the delivery of their educational services to community standards 	
	<u>Quality Cultural and Recreational Amenities:</u>	
	<ul style="list-style-type: none"> • Implement a comprehensive range of recreational and cultural amenities that enhance the Los Alamos community 	
	<u>Environmental Stewardship:</u>	
	<ul style="list-style-type: none"> • Enhance environmental quality and sustainability balancing costs and benefits including County services and utilities 	
	<u>Mobility:</u>	
	<ul style="list-style-type: none"> • Maintain and improve transportation and mobility 	

Quality Governance		
	<u>Operational Excellence:</u>	
	<ul style="list-style-type: none"> • Priority Area – Implement the Comprehensive Plan with an emphasis on neighborhoods and zoning 	
	<ul style="list-style-type: none"> • Priority Area – Simplify permit requirements and improve the overall development and building code processes to become easier to work with for all participants 	
	<ul style="list-style-type: none"> • Maintain quality essential services and supporting infrastructure 	
	<ul style="list-style-type: none"> • Invest in staff development to create a high performing organization 	
	<ul style="list-style-type: none"> • Manage commercial growth well following an updated, concise, and consistent comprehensive plan 	
	<ul style="list-style-type: none"> • Establish and implement a mechanism for effective Utility policy setting and review 	
	<u>Communication:</u>	
	<ul style="list-style-type: none"> • Improve transparency in policy setting and implementation 	
	<ul style="list-style-type: none"> • Create a communication process that provides measurable improvement in citizen trust in government 	
	<u>Intergovernmental Relations:</u>	
	<ul style="list-style-type: none"> • Strengthen coordination and cooperation between County government, LANL, and the regional and national partners 	
	<ul style="list-style-type: none"> • Actively pursue land transfer opportunities 	



County of Los Alamos

Staff Report

February 16, 2017

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.:

Index (Council Goals):

Presenters: Angelica Gurule

Legislative File: 9087-17

Title

January 2017 Residential Sustainability Report

Recommended Action Motion

N/A

Body

The ESB will review and discuss the January 2017 Residential Sustainability Report.

Attachments

D - Residential Sustainability Report - January 2017



Residential Sustainability Report

Service Period: January 2017

Recyclables Collected: 134.02 tons

Trash Collected: 389.91 tons

Compostable Materials Collected: 19.24 tons

Total Material Collected: 523.93 tons



LOS ALAMOS

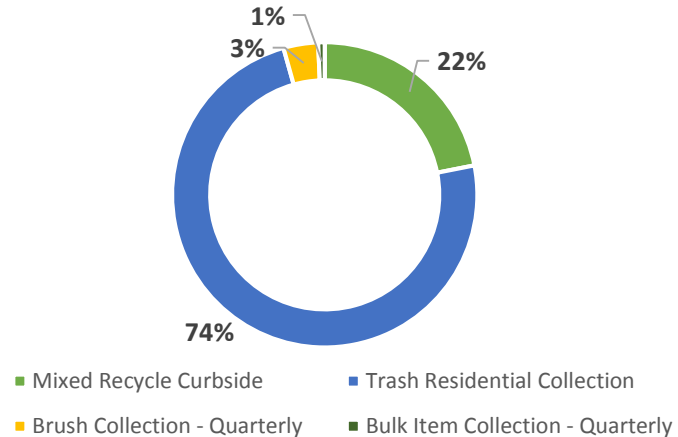
Monthly Collection Report

December Diversion Rate: **25%**

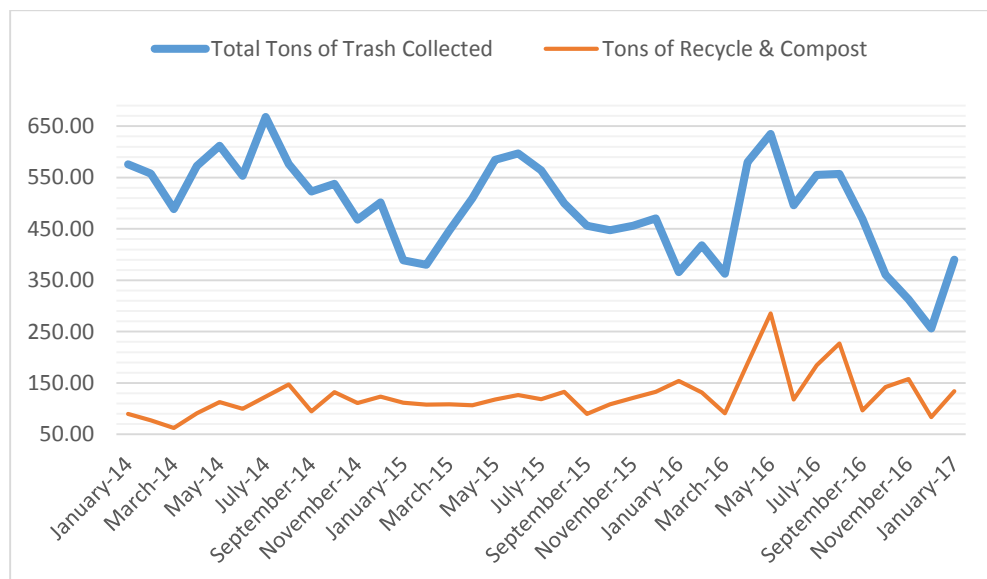
January Diversion Rate: **26%**

A **4%** Increase in Diversion

The *diversion rate* is the percent of materials recycled and composted.



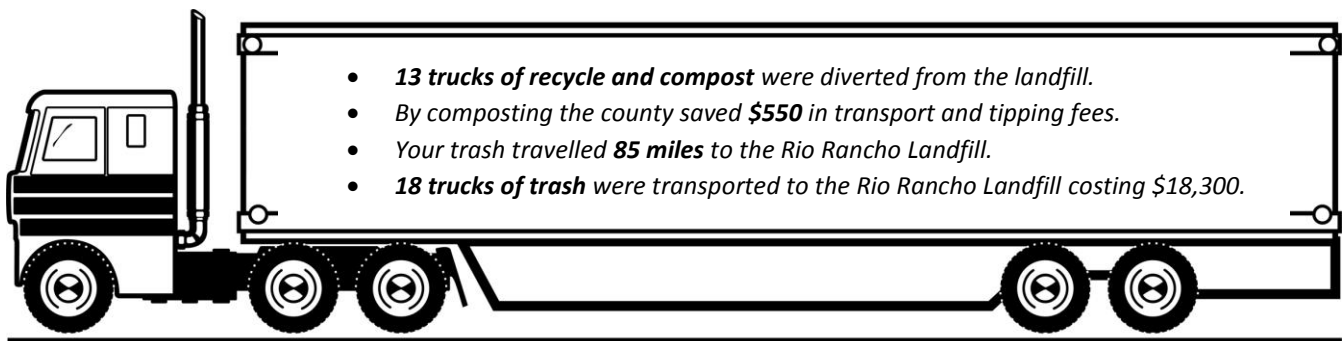
Month by Month Recycling Comparison



Recycling saves

Recycling one ton of plastic:

- Saves 5,774 kWh energy
- Saves 16.3 barrels (685 gallons) of oil
- Saves 98 million Btu's of energy
- Saves 30 cubic yards of landfill space





County of Los Alamos

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February 16, 2017

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.:

Index (Council Goals):

Presenters: Angelica Gurule

Legislative File: 9110-17

Title

Review Environmental Services Budget Performance for FY2017

..Suggested Motion

N/A

Body

Review of Environmental Services budget performance for FY2017 quarter 1 and 2.

Attachments

G - FY17 Environmental Services Budget Performance

FY17 Environmental Services Costs				
Residential	Costs	Q1	Q2	FY17
	Trash Labor	\$ 32,702	\$ 33,079	\$ 65,780
	Quarterly Labor	\$ 8,637	\$ 9,248	\$ 17,886
	Overlook Labor	\$ 14,533	\$ 3,087	\$ 17,620
	HHW Labor	\$ 9,600	\$ 6,597	\$ 16,198
	Brush/Compost Labor	\$ 3,995	\$ 3,380	\$ 7,376
	Recycle Labor	\$ 29,358	\$ 31,323	\$ 60,681
	Glass Labor	\$ 563	\$ 749	\$ 1,312
	Scale Labor	\$ 17,516	\$ 19,326	\$ 36,842
	Transfer Station Labor	\$ 29,477	\$ 26,611	\$ 56,088
	Trash Disp. & Trans.	\$ 80,993	\$ 69,869	\$ 150,861
	Recycle Disp. & Trans.	\$ 15,180	\$ 22,551	\$ 37,731
	Equipment IDC	\$ 120,423	\$ 120,423	\$ 240,846
	Outside Services	\$ 26,739	\$ 755	\$ 27,495
	Other Services	\$ 8,422	\$ 4,047	\$ 12,470
	Materials/Supplies	\$ 2,037	\$ 22,345	\$ 24,383
	Admin/Overhead	\$ 152,668	\$ 163,020	\$ 315,687
	Total Cost	\$ 552,845	\$ 536,411	\$ 1,089,256
Commercial				
	Roll Off Labor	\$ 12,559	\$ 13,957	\$ 26,517
	Scale Labor	\$ 2,617	\$ 3,292	\$ 5,909
	Transfer Station Labor	\$ 1,989	\$ 2,863	\$ 4,853
	Trash Disp. & Trans.	\$ 7,237	\$ 8,614	\$ 15,851
	Equipment IDC	\$ 8,672	\$ 8,672	\$ 17,344
	Materials/Supplies	\$ 278	-	\$ 278
	Admin/Overhead	\$ 12,724	\$ 16,328	\$ 29,051
		\$ 46,076	\$ 53,726	\$ 99,801
	Dumpsters			
	Dumpster Trash Labor	\$ 17,752	\$ 23,094	\$ 40,846
	Dumpster Recycle Labor	\$ 4,409	\$ 4,823	\$ 9,232
	Scale Labor	\$ 709	\$ 896	\$ 1,606
	Transfer Station Labor	\$ 10,514	\$ 9,820	\$ 20,334
	Trash Disp. & Trans.	\$ 33,678	\$ 30,108	\$ 63,786
	Recycle Disp. & Trans.	\$ 4,134	\$ 6,166	\$ 10,301
	Cardboard Trans.	\$ 780	\$ 837	\$ 1,617
	Equipment IDC	\$ 46,977	\$ 46,977	\$ 93,954
	Materials/Supplies	\$ 1,217	\$ 8,343	\$ 9,560
	Admin/Overhead	\$ 45,845	\$ 57,222	\$ 103,067
		\$ 166,016	\$ 188,287	\$ 354,303
	Total Cost	\$ 212,092	\$ 242,013	\$ 454,105
Transfer Station	Transfer Station Labor	\$ 23,121	\$ 21,589	\$ 44,710
	Tire Labor and Disp.	\$ 1,451	\$ 5,903	\$ 7,354
	Scale Labor	\$ 2,480	\$ 2,717	\$ 5,197
	Recycling Labor	\$ 3,199	\$ 2,130	\$ 5,329
	Trash Disp. & Trans.	\$ 64,671	\$ 61,044	\$ 125,714
	Recycle Disp. & Trans.	\$ 2,836	\$ 2,112	\$ 4,948
	Cardboard Trans.	\$ 2,825	\$ 1,966	\$ 4,791
	Mulch Trans.	\$ -	\$ -	\$ -
	Outside Services	\$ 546	\$ -	\$ 546
	Other Services	\$ 140	\$ 16	\$ 156
	Materials/Supplies	\$ 11,984	\$ 5,240	\$ 17,224
	Admin/Overhead	\$ 43,206	\$ 44,845	\$ 88,051
	Total Cost	\$ 156,459	\$ 147,562	\$ 304,021
	Landfill			
	Closure/Post Closure Labor	\$ 2,366	\$ 2,875	\$ 5,241
	Outside Services/Materials	\$ 4,619	\$ 6,065	\$ 10,684
	Total Cost	\$ 6,985	\$ 8,940	\$ 15,925
	Loan payment	\$ 90,407	\$ 90,407	\$ 180,814
	Grand Total Cost	\$ 1,018,788	\$ 1,025,333	\$ 2,044,121

FY17 Summary			
OPERATING EXPENSES	Cost	Revenue	Gain/Loss
Residential	1,089,255.63	937,309.41	(151,946.22)
Landfill	15,925.07	0.00	(15,925.07)
Roll Off	99,801.43	58,252.86	(41,548.57)
Dumpsters	354,303.32	323,345.85	(30,957.47)
Transfer Station	304,021.08	380,337.88	76,316.80
Loan/Intrest	180,814.00	184,376.00	3,562.00
Total	2,044,120.53	1,883,622.00	(160,498.53)

FY17 Environmental Services Revenues				
Residential	Revenues	Q1	Q2	FY17
	Rates	\$ 466,032	\$ 471,278	\$ 937,309
	Total Revenue	\$ 466,032	\$ 471,278	\$ 937,309
Commercial				
	Roll-off Rates	Q1	Q2	FY17
		\$ 27,118	\$ 31,135	\$ 58,253
		\$ 27,118	\$ 31,135	\$ 58,253
Dumpsters		Q1	Q2	FY17
	Rates	\$ 144,450	\$ 162,937	\$ 307,387
	OCC Sales	\$ 7,880	\$ 8,078	\$ 15,959
		\$ 152,331	\$ 171,015	\$ 323,346
	Total Revenue	\$ 179,449	\$ 202,150	\$ 381,599
Transfer Station		Q1	Q2	FY17
	Comm. Trash	\$ 54,947	\$ 44,587	\$ 99,534
	Comm. Const.	\$ 20,927	\$ 20,641	\$ 41,568
	Comm. Tire	\$ 3,013	\$ 4,882	\$ 7,895
	Comm. Brush	\$ 12,040	\$ 10,859	\$ 22,899
	LANL Trash	\$ 29,794	\$ 25,513	\$ 55,307
	LANL Brush	\$ 1,980	\$ 1,921	\$ 3,901
	LANL Construction	\$ 356	\$ 212	\$ 568
	Concrete/Asphalt Tip	\$ 27,535	\$ 20,233	\$ 47,768
	Misc. Comm Tip	\$ 6,199	\$ 4,860	\$ 11,059
	Concrete Rev.	\$ 8,196	\$ 6,874	\$ 15,071
	Metal Rev.	\$ 10,408	\$ 1,616	\$ 12,024
	OCC Sales	\$ 2,534	\$ 1,825	\$ 4,358
	Sales of Trash Bags	\$ 1,399	\$ 1,243	\$ 2,642
	Misc. Rev.	\$ 30,798	\$ 24,946	\$ 55,744
	Total Revenue	\$ 210,126	\$ 170,212	\$ 380,338
		Q1	Q2	FY17
	Interest	\$ 2,495	\$ 1,067	\$ 3,562
	EGRT used for loan	\$ 90,407	\$ 90,407	\$ 180,815
	Total Revenue	\$ 948,509	\$ 935,114	\$ 1,883,623
	Net Revenue	\$ (70,279)	\$ (90,219)	\$ (160,498)



County of Los Alamos

Staff Report

February 16, 2017

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.:

Index (Council Goals):

Presenters: Angelica Gurule

Legislative File: 9111-17

Title

Review 2016 NMED Solid Waste Annual Reports

..Suggested Motion

N/A

Body

2016 NMED Solid Waste Annual Report is due annually by February 14th. The report for the Eco Station and Closed Landfill was submitted to NMED in compliance with Solid Waste Rules.

Attachments

H - 2016 NMED Annual Report for Eco Station

I - 2016 NMED Annual Report for Los Alamos County Closed Landfill

I. 2016 General Information Form

Facility Information		January 1-December 31, 2016		Permit/Registration # SWM-021528	
County:	Los Alamos County		Check One:	<input checked="" type="checkbox"/> Open Facility	<input type="checkbox"/> Closed Facility
Facility Name	Los Alamos County Transfer Station		Phone	(505) 662-8163	
Contact Person	Angelica Gurule		E-Mail Address	angelica.gurule@lacnm.us	
Facility Mailing Address	3701 E. Jemez Road				
City:	Los Alamos	State:	NM	Zip Code:	87544
Physical Location of Facility (City/County Road)	3701 E. Jemez Road, Los Alamos, NM 87544				

Facility Operator	Los Alamos County		Phone	(505) 662-8163	
Contact Person	Angelica Gurule		E-mail Address	angelica.gurule@lacnm.us	
Mailing Address	3701 E. Jemez Road				
City	Los Alamos	State:	NM 8	Zip Code:	87544

Facility Owner	SAME AS ABOVE		Phone		
Contact Person			E-mail Address		
Mailing Address					
City		State:		Zip Code:	

Land Owner	Department of Energy		Phone		
Contact Person	Lee Ledoux		E-mail Address		
Mailing Address	Los Alamos Site Office/NNSA/528 35th Street				
City	Los Alamos	State:	NM	Zip Code:	

Financial Assurance	
<input checked="" type="checkbox"/> Check One Box	
<input checked="" type="checkbox"/> Updated Financial Assurance Attached	
<input type="checkbox"/> Financial Assurance required but not Attached (Explain on Comment Sheet)	
<input type="checkbox"/> Financial Assurance not required (Explain on Comment Sheet)	

Questions?
 Call 505-827-0129

Landfills Only	
Check One: <input type="checkbox"/> Open Landfill <input checked="" type="checkbox"/> Closed Landfill	
Capacity Information for Open Landfills (If not provided- explain on Comment Sheet)	
Provide Landfill Capacity Used during 2016	(Cubic Yards)
Provide Remaining Landfill Capacity	(Cubic Yards) (See V. Capacity Worksheet.)
Provide Remaining Landfill Life	(Years) (See V. Capacity Worksheet.)
Number of acres at current site, not permitted, that could be used for disposal in the future	
Were there any changes in operations that reduced the active life of the landfill by 25% or more?	
<input type="checkbox"/> No	<input type="checkbox"/> Yes (Attach Notification)

Monitoring Results for Open Landfills (and Closed Landfill in Post-Closure Care)	
<input type="checkbox"/> No	<input type="checkbox"/> Yes Summary of Landfill Gas Monitoring Results Enclosed (if not explain on Comment Sheet)
<input type="checkbox"/> No	<input type="checkbox"/> Yes Summary of Landfill Ground Water Monitoring Results Enclosed (if not explain on Comment Sheet)
<input type="checkbox"/> No	<input type="checkbox"/> Yes Summary of Leachate Generated & Treated or Disposed Enclosed (if not explain on Comment Sheet)
Closure and Post-Closure Activity	
Date of Closure	
Total Acreage Used for Disposal (as of 12/31/16)	(Acres)
Intermediate Cover	(Acres) Area Seeded (Acres)
Total Acreage with Final Cover Installed (per Closure Plan)	(Acres)

II. 2016 Material and Solid Waste Management Form

Facility Name: Los Alamos County Transfer Station				PRINT Name, Title and Telephone # of the Person Completing Form: Angelica Gurule, Environmental Services Manager (505) 662-8163			
County: Los Alamos County		Permit or Registration # SWM-021528		Facility Type: <input type="checkbox"/> Landfill <input type="checkbox"/> Recycling <input checked="" type="checkbox"/> Composting <input checked="" type="checkbox"/> Transfer/Convenience Center			

Material Type (See Instructions)	Method <input checked="" type="checkbox"/> Mark One <input type="checkbox"/> Estimated	Waste Origin		Managed On-Site:			Sent Off-Site to be:			Sent to:
		Amount of In-State Material Received in Tons (a)	Amount Out-of-State Materials Received in Tons (b)	(c) Landfilled or Treated	(d) Recycled, Composted or Mulched	(e) Beneficially Used	(f) Treated, Disposed, Incinerated	(g) Recycled, Mulched, Composted	(h) Beneficially Used	
1 MSW	x	14,528.63					14,258.63			Provide Facility Name, City and State Rio Rancho Landfill, Rio Rancho, NM Rio Rancho Landfill, Rio Rancho, NM Dave Tainter Trucking/Eco Station, Los Alamos, NM
2 C & D	x	1,543.74					1,543.74			
3 Clean Fill	x	14,012.33					14,012.33			
Special Wastes:										
4 Industrial Waste										
5 Regulated Asbestos										
6 Infectious Waste										
7 Ash										
8 PCS										
9 Offal										
10 Bio-Solids (Treated Sewage Sludge)										
11 Other Sludges										
12 Other Special Waste										
Other Materials:										
13 Brush/Green Waste	x	1,903.66			1,903.66					Mulched and used for compost operation at Bayo Canyon, Los Alamos, NM State Rubber, Denver City, TX Safety Kleen, Albuquerque, NM Safety Kleen, Albuquerque, NM Santa Fe Scrap Metal, Santa Fe, NM Stericycle, Albuquerque, NM
14 Scrap Tires	x	78.60					78.60			
15 Motor Oil	x	24.95					24.95			
16 Antifreeze	x	2.52					2.52			
17 Lead Acid Batteries		9.00					9.00			
18 HHW	x	27.07					27.07			
19 Other Wastes										
TOTAL TONS		32,130.50			1,903.66		15,829.44	14,012.33	115.07	

Questions?
Call 505-827-0129

III. 2016 Recyclable Materials Form

Facility Name: Los Alamos County Transfer Station				PRINT Name, Title & Telephone # of Person Completing Form: Angelica Gurule, Environmental Services Manager, (505) 662-8163			
County: Los Alamos		Permit or Registration # SWM-021528		Facility Type: <input type="checkbox"/> Landfill <input type="checkbox"/> Recycling <input type="checkbox"/> Composting <input checked="" type="checkbox"/> Transfer/Convenience Center			
Type of Recyclable	Method		Material Origin		Managed On-Site:		Facility sent to:
	<input checked="" type="checkbox"/> Mark One	Estimated	Amount of In-State Materials Received in Tons (a)	Amount of Out-of-State Materials Received in Tons (b)	Sent Off-Site to be:		
					(c)	(d)	
							Provide Facility Name and City/State
Paper:							
1 Mixed Paper							
2 Cardboard (OCC)	x		236.44		236.44		Bio Pappel, Albuquerque, NM
3 Newspaper (ONP)							
4 Office Paper							
5 Phone Books							
6 Chip Board							
Containers:							
7 Plastics							
8 Aluminum							
9 Steel Cans							
10 Glass	x		194.38		194.38		Santa Fe Solid Waste Association, Santa Fe, NM
11 Mixed Containers							
Other Materials:							
12 Scrap Metals/White Goods	x		400.41		400.41		Ace Metals, Albuquerque, NM
13 Carpet Padding							
14 Pallets	x		87.15		87.15		Mulched and used for compost operation at Bayo Canyon, Los Alamos NM
15 Electronic Scrap	x		44.94		44.94		Santa Fe Solid Waste Association, Santa Fe, NM
16 Plastic Films							
17 Other Plastics							
18 Household Items							
19 Textiles/Clothing							
20 Other or Commingled Materials	x		1,822.81		1,822.81		Friedman Recycling, Albuquerque, NM Town Recycling, Albuquerque, NM
21 TOTAL			2,786.13		2,504.60	194.38	

Questions?
Call 505-827-0129

2016 Additional Comments

Name of Facility: Los Alamos County Transfer Station
Name of Person completing form: Angelica Gurule

Names of Certified Operators at Facility:	
Recycling - Angelica Gurule, Leonard Martinez, Derrick Voight, Chris Ocana	
Transfer Station - Joshua Levings, Chris Ocana, Leonard Martinez, Terrance Gray, Andy Broadus, Eric Lopez	
Transfer Station - Derrick Voight, Angelica Gurule, Joseph Baca, Donald Baros and Anthony Sargent	
Landfill - Angelica Gurule, Derrick Voight and Terrance Gray	

Average <u>Landfill</u> Tipping Fees:	Average <u>Transfer Station</u> Tipping Fees:
MSW: 0	MSW: \$64/ton
Tires: 0	Tires: \$200/ton
Special Waste: 0	

To Be Completed by Facilities Accepting and <u>Storing</u> Tires:			
Number of tires stored onsite at the <u>beginning</u> of calendar year (<i>January 1, 2016</i>):		Number of tires stored onsite at the <u>end</u> of calendar year (<i>December 31, 2016</i>):	
Passenger Tires: 0		Passenger Tires: 0	
Truck Tires:		Truck Tires:	
Tire Bales:		Bales:	

Financial Assurance not enclosed because:	
Financial Assurance estimate is enclosed	

General Comments:	
Tires are sent to State Rubber in Denver City Texas typically every 2-3 months, once a full load is ready for	

Landfill Information Only

Gas Monitoring Results not enclosed because:	

Ground Water Monitoring Results not enclosed because:	

Leachate Generation Report not enclosed because:	

Capacity Information not provided because:	

24 Jan 2017

Mrs. Auralie Ashley-Marx
Chief of the NMED Solid Waste Bureau
Harold Runnels Building
1190 St. Francis Drive
Santa Fe, NM 87502

Dear Mrs. Ashley-Marx:

COUNTY COUNCIL

David Izraelevitz
Council Chair

Susan O'Leary
Council Vice-Chair

COUNCILORS

Chris Chandler
James A. Chrobocinski
Antonio Maggiore
Rick Reiss
Pete Sheehy

COUNTY MANAGER

Harry Burgess

This letter supports this local government's use of the local government financial test to determine financial assurance, as specified in the New Mexico Solid Waste Rules.

1. This local government is the operator of the following facility for which financial assurance for closure, post closure, and Phase I and Phase II assessment is demonstrated through the local government financial test specified in the New Mexico Solid Waste Management Regulations. The current closure, post closure, and Phase I and Phase II assessment cost estimates covered by the test for this facility are as follows:

Closure cost	\$ 3,090,000
Additional closure cost	1,351,521
30-year post-closure cost	276,269
Phase I and Phase II assessment cost	-
Transfer station	50,378
Life-to-date closure expenditures	(4,277,934)
Total	<u>\$ 490,324</u>

2. This local government guarantees, through the local government guarantee specified in the New Mexico Solid Waste Rules, the closure, post closure, Phase I and Phase II assessment, and/or corrective action of the following facilities operated by this local government. The current cost estimates for the closure, post closure, Phase I and Phase II assessment, and/or corrective action so guaranteed as shown for each facility:

Not Applicable

3. This local government assures, through the local government financial test for UIC facilities under 40 CFR 144.62, petroleum underground storage tank facilities under 40 CFR part 280, PCB storage facilities under 40 CFR part 761, and hazardous waste treatment, storage and disposal facilities under 40 CFR parts 264 and 265, the following facilities operated by this local government. The current cost estimates for the facility(ies) so assured are shown for each facility:

Not Applicable

4. The fiscal year of this local government ends on June 30. The figures for the following items marked with an asterisk are derived from this local government's independently audited year-end financial statements for the latest completed fiscal year ended June 30, 2015, and reflect all County operations except those of the Joint Utility System and the Pension Trust Fund.

ALTERNATIVE II

- | | | |
|-----|---|------------|
| *1. | Sum of current amounts guaranteed using the financial test (total of all cost estimates shown in paragraphs 1, 2, and 3 above) | \$ 490,324 |
| *2. | Sum of current closure, post closure, Phase I and Phase II assessment, and/or corrective action (total of all cost estimates shown in paragraphs 1 and 2 above) | 490,324 |
| *3. | Sum of cash and marketable securities | 80,959,349 |
| *4. | Total expenditures | 93,011,403 |
| *5. | Total annual debt service | 6,629,109 |
| *6. | Total long-term debt issued and outstanding | 52,221,530 |
| *7. | Total capital expenditures | 12,946,317 |
| *8. | Total annual revenue | 86,140,947 |
| *9. | Are the financial statements prepared in conformity with Generally Accepted Accounting Principles?
Yes <u> X </u> No <u> </u> | |
| 10. | Is line 1 less than forty-three percent (43%) of line 8?
Yes <u> X </u> No <u> </u> | |
| 11. | Is line 3 greater than or equal to 0.05 of line 4?
Yes <u> X </u> No <u> </u> | |

12. Is line 5 less than or equal to 0.20 of line 4?
Yes X No
13. Is line 6 less than or equal to 2.00 of line 7?
Yes No X
14. Is the local government currently in default on any outstanding general obligation bonds?
Yes No X
15. Does the local government have any outstanding general obligation bonds rated lower than Baa as issued by Moody's or BBB as issued by Standard and Poor's?
Yes No X
16. Has the local government operated at a deficit greater than five percent (5%) of total revenue in either of the past two fiscal years?
Yes No X
17. Has the local government received an adverse opinion, disclaimer of opinion, or other qualified opinion from the independent public accountant or appropriate State agency auditing its financial statements?
Yes No X

I hereby certify the contents of this letter are consistent with the requirements of the New Mexico Solid Waste Rules as of June 30, 2016.

Sincerely,



Joseph A. D'Anna
Chief Financial Officer

I. 2016 General Information Form

Facility Information January 1-December 31, 2016		Permit/Registration # CPC-021522	
County: <u>Los Alamos County</u>	Check One: <input type="checkbox"/> Open Facility		<input checked="" type="checkbox"/> Closed Facility
Facility Name <u>Los Alamos County Landfill</u>	Phone <u>(505) 662-8163</u>		
Contact Person <u>Angelica Gurule</u>	E-Mail Address <u>angelica.gurule@lacnm.us</u>		
Facility Mailing Address <u>3701 E. Jemez Road</u>			
City: <u>Los Alamos</u>	State: <u>NM</u>	Zip Code: <u>87544</u>	
Physical Location of Facility (City/County Road) <u>3701 E. Jemez Road, Los Alamos NM 87544</u>			

Facility Operator <u>Los Alamos County</u>	Phone <u>(505) 662-8163</u>
Contact Person <u>Angelica Gurule</u>	E-mail Address <u>angelica.gurule@lacnm.us</u>
Mailing Address <u>3701 E. Jemez Road</u>	
City <u>Los Alamos</u>	State: <u>NM</u> Zip Code: <u>87544</u>

Facility Owner <u>SAME AS ABOVE</u>	Phone _____
Contact Person _____	E-mail Address _____
Mailing Address _____	
City _____	State: _____ Zip Code: _____

Land Owner <u>Department of Energy</u>	Phone _____
Contact Person <u>Lee Ledoux</u>	E-mail Address _____
Mailing Address <u>Los Alamos Site Office/NNSA/528 35th Street</u>	
City <u>Los Alamos</u>	State: <u>NM</u> Zip Code: <u>87544</u>

Financial Assurance	
<input checked="" type="checkbox"/> Check One Box	
<input checked="" type="checkbox"/> Updated Financial Assurance Attached	
<input type="checkbox"/> Financial Assurance required but not Attached (Explain on Comment Sheet)	
<input type="checkbox"/> Financial Assurance not required (Explain on Comment Sheet)	

Questions?
 Call 505-827-0129

Landfills Only

Check One: <input type="checkbox"/> Open Landfill <input checked="" type="checkbox"/> Closed Landfill	
Capacity Information for Open Landfills (If not provided- explain on Comment Sheet)	
Provide Landfill Capacity Used during 2016 _____	0 (Cubic Yards)
Provide Remaining Landfill Capacity _____	0 (Cubic Yards) (See <u>V. Capacity Worksheet</u> .)
Provide Remaining Landfill Life _____	0 (Years) (See <u>V. Capacity Worksheet</u> .)
Number of acres at current site, not permitted, that could be used for disposal in the future _____	
Were there any changes in operations that reduced the active life of the landfill by 25% or more?	
<input type="checkbox"/> No	<input type="checkbox"/> Yes (Attach Notification)

Monitoring Results for Open Landfills (and Closed Landfill in Post-Closure Care)	
<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes Summary of Landfill Gas Monitoring Results Enclosed (if not explain on Comment Sheet)
<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes Summary of Landfill Ground Water Monitoring Results Enclosed (if not explain on Comment Sheet)
<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes Summary of Leachate Generated & Treated or Disposed Enclosed (if not explain on Comment Sheet)

Closure and Post-Closure Activity	Date of Closure _____	Dec-11
Total Acreage Used for Disposal (as of 12/31/16) _____	35.3 (Acres)	
Intermediate Cover _____ (Acres)	Area Seeded _____ (Acres)	
Total Acreage with Final Cover Installed (per Closure Plan) _____	35.3 (Acres)	

II. 2016 Material and Solid Waste Management Form

Facility Name: Los Alamos County Landfill				PRINT Name, Title and Telephone # of the Person Completing Form: Angelica Gurule, Environmental Services Manager, (505) 662-8163						
County: Los Alamos		Permit or Registration # CPC-021522		Facility Type: <input checked="" type="checkbox"/> Landfill <input type="checkbox"/> Recycling <input type="checkbox"/> Composting <input type="checkbox"/> Transfer/Convenience Center						
Material Type (See Instructions)	Method <input checked="" type="checkbox"/> Mark One <input type="checkbox"/> Estimated	Waste Origin		Managed On-Site:			Sent Off-Site to be:		Sent to:	
		Amount of In-State Material Received in Tons (a)	Amount Out-of-State Materials Received in Tons (b)	(c)	(d)	(e)	(f)	(g)		(h)
1 MSW										Provide Facility Name, City and State
2 C & D										
3 Clean Fill										
Special Wastes:										
4 Industrial Waste										
5 Regulated Asbestos										
6 Infectious Waste										
7 Ash										
8 PCS										
9 Offal										
10 Bio-Solids (Treated Sewage Sludge)										
11 Other Sludges										
12 Other Special Waste										
Other Materials:										
13 Brush/Green Waste										
14 Scrap Tires										
15 Motor Oil										
16 Antifreeze										
17 Lead Acid Batteries										
18 HHW										
19 Other Wastes										
TOTAL TONS										

III. 2016 Recyclable Materials Form

Facility Name: Los Alamos County Landfill				Permit or Registration # CPC-021522				PRINT Name, Title & Telephone # of Person Completing Form: Angelica Gurule, Environmental Services Manager, (505) 662-8163			
County: Los Alamos		Method		Material Origin		Managed On-Site:		Facility Type: <input checked="" type="checkbox"/> Landfill <input type="checkbox"/> Recycling <input type="checkbox"/> Composting <input type="checkbox"/> Transfer/Convenience Center		Facility sent to:	
Type of Recyclable		<input checked="" type="checkbox"/> Mark One	Estimated	Amount of In-State Materials Received in Tons (a)	Amount of Out-of-State Materials Received in Tons (b)	(c)	Sent Off-Site to be:		Beneficially Used		(f)
		Weighted					Recycled or Processed (d)	Beneficially Used (e)			
Paper:											
1	Mixed Paper										
2	Cardboard (OCC)										
3	Newspaper (ONP)										
4	Office Paper										
5	Phone Books										
6	Chip Board										
Containers:											
7	Plastics										
8	Aluminum										
9	Steel Cans										
10	Glass										
11	Mixed Containers										
Other Materials:											
12	Scrap Metals/White Goods										
13	Carpet Padding										
14	Pallets										
15	Electronic Scrap										
16	Plastic Films										
17	Other Plastics										
18	Household Items										
19	Textiles/Clothing										
20	Other or Commingled Materials										
21	TOTAL										

Questions?
Call 505-827-0129

2016 Additional Comments

Name of Facility: <u>Los Alamos County Landfill</u>	
Name of Person completing form: <u>Angelica Gurule</u>	

Names of Certified Operators at Facility:	
Recycling - Angelica Gurule, Leonard Martinez, Derrick Voight, Chris Ocana	
Transfer Station - Joshua Levings, Chris Ocana, Leonard Martinez, Terrance Gray, Andy Broadus, Eric Lopez	
Transfer Station - Derrick Voight, Angelica Gurule, Joseph Baca, Donald Baros and Anthony Sargent	
Landfill - Angelica Gurule, Derrick Voight and Terrance Gray	

Average <u>Landfill</u> Tipping Fees:	Average <u>Transfer Station</u> Tipping Fees:
MSW:	MSW: \$64/Ton
Tires:	Tires: \$200/Ton
Special Waste:	

To Be Completed by Facilities Accepting and <u>Storing</u> Tires:			
Number of tires stored onsite at the <u>beginning</u> of calendar year (<i>January 1, 2016</i>):		Number of tires stored onsite at the <u>end</u> of calendar year (<i>December 31, 2016</i>):	
Passenger Tires:		Passenger Tires:	
Truck Tires:		Truck Tires:	
Tire Bales:		Bales:	

Financial Assurance not enclosed because:
Financial Assurance is enclosed.

General Comments:

Landfill Information Only:
Gas Monitoring Results not enclosed because:
Landfil gas is monitored on a weekly basis. Quarterly reports are submitted to NMED. Landfill methane gas levels are currently exceeding lower explosive limit and mitigation efforts are underway as reported to NMED-SWB Attached is the most recent monthly update to Mrs. Auralie Ashley Marx.

Ground Water Monitoring Results not enclosed because:
It is is not required as part of final approved closure plan.

Leachate Generation Report not enclosed because:
It is is not required as part of the final approved closure plan.

Capacity Information not provided because:
The landfill is closed and no longer accepts waste for landfill.

24 Jan 2017

Mrs. Auralie Ashley-Marx
Chief of the NMED Solid Waste Bureau
Harold Runnels Building
1190 St. Francis Drive
Santa Fe, NM 87502

Dear Mrs. Ashley-Marx:

COUNTY COUNCIL

David Izraelevitz
Council Chair

Susan O'Leary
Council Vice-Chair

COUNCILORS

Chris Chandler
James A. Chrobocinski
Antonio Magglore
Rick Reiss
Pete Sheehey

COUNTY MANAGER

Harry Burgess

This letter supports this local government's use of the local government financial test to determine financial assurance, as specified in the New Mexico Solid Waste Rules.

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| | Yes <u> X </u> | No <u> </u> |
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Yes No X

I hereby certify the contents of this letter are consistent with the requirements of the New Mexico Solid Waste Rules as of June 30, 2016.

Sincerely,



Joseph A. D'Anna
Chief Financial Officer

Gurule, Angelica

From: Pincus, Marcia <MPincus@scsengineers.com>
Sent: Friday, January 27, 2017 10:22 AM
To: Ashley-Marx, Auralie, NMENV (Auralie.Ashley-Marx@state.nm.us)
Cc: Gurule, Angelica; Mezzacappa, David; Lewallen, Jason
Subject: Jan 2017 Gas Probe and LFG Vent Readings for Los Alamos Conuty LF
Attachments: LAC DATA SUMMARY THRU JANUARY 2017 rvs map 012717.xlsx

Hi Auralie!

A summary of the Gas Probes and LFG Vent wells readings for January 2017 for Los Alamos Landfill are as follows:

LFG Vents: All the vents increased in methane concentrations during this monitoring event. The methane concentrations ranged from 42.3 to 57.1 percent gas in air (volume).

Gas Probes: All the Gas Probes increased in methane concentrations during this monitoring event. The methane concentrations ranged from 11.1 to 44.3 percent gas in air (volume).

The Perimeter Gas Probes (MP-8R, MP-9R etc.): Of the five perimeter probes only two probes, MP-9R and MP-12R, were less than 5 percent methane, the remainder of the probes ranged in methane concentrations from 7.2 to 25.4 percent gas in air (volume).

Please contact Angelica or me, if you have any questions/comments concerning the above data.

Have a great weekend!

Marcia A. Pincus, P.E.
Project Manager
Mountain Area Manager
SCS Field Services
3351 Candelaria Road NE; Suite D
Albuquerque, New Mexico 87107

Los Alamos County
LFG Extraction System
thru January 2017

Device ID	Date	Time	CH4	CO2	O2	Balance	Rel. Press.	Comments
			%	%	%	%	inches H2O	
Blower Inlet	12/17/14	12:54	39.2	31.6	5.9	23.3	-2.74	
Blower Inlet	12/22/14	11:34	52.4	41.0	0.6	6.0	-2.83	
Blower Inlet	12/22/14	15:21	52.2	42.5	0.3	5.0	-3.19	
Blower Inlet	1/7/15	12:33	45.1	37.5	1.9	15.5	-3.33	
Blower Inlet	1/7/15	16:36	46.3	36.8	1.4	15.5	-3.61	
Blower Inlet	1/7/15	16:38	46.3	35.2	1.4	17.1	-3.90	
Blower Inlet	1/21/15	12:11	51.2	40.2	0.6	8.0	-3.92	
Blower Inlet	2/3/15	12:22	54.0	39.2	1.2	5.6	-3.75	
Blower Inlet	2/5/15	15:01	42.3	34.8	0.6	22.3	-4.69	
Blower Inlet	3/6/15	12:22	36.9	29.5	7.1	26.5	-5.56	
Blower Inlet	3/6/15	14:12	31.8	25.9	8.7	33.6	-5.65	
Blower Inlet	3/6/15	14:33	29.9	24.0	9.3	36.8	-5.04	Lowered vacuum
Blower Inlet	4/21/15	11:37	28.1	24.0	8.8	39.1	-4.42	Lateral to MP-11 broken; repaired and LFG concentrations arose
Blower Inlet	4/21/15	14:20	47.9	39.5	0.5	12.1	-4.32	
Blower Inlet	5/29/15	10:25	44.4	40.2	0.2	15.2	-4.80	Relative pressure obtained using handheld digital manometer
Blower Inlet	6/30/15	10:54	42.2	38.2	0.7	18.9	-4.69	
Blower Inlet	6/30/15	10:56	41.8	37.7	0.9	19.6	-0.05	
Blower Inlet	6/30/15	13:32	43.8	38.7	0.6	16.9	-4.44	Increased vacuum from -4.44 inches to -5.07 inches
Blower Inlet	6/30/15	13:36	44.0	38.9	0.5	16.6	-5.07	
Blower Inlet	7/30/15	11:47	41.9	38.0	1.1	19.0	-5.59	
Blower Inlet	8/18/15	14:21	47.7	36.0	0.8	15.5	-4.92	
Blower Inlet	9/10/15	9:51	42.3	36.4	1.1	20.2	-5.26	Relocated Extraction Piping to South of Swale
Blower Inlet	9/10/15	10:28	42.5	37.0	1.2	19.3	-5.02	
Blower Inlet	10/15/15	12:53	42.9	37.5	1.5	18.1	-5.31	
Blower Inlet	10/15/15	12:57	42.8	37.6	1.4	18.2	-6.20	
Blower Inlet	11/12/15	13:33	47.8	38.8	1.2	12.2	-7.19	
Blower Inlet	12/30/15	NA	NA	NA	NA	NA	NA	No inlet port; switched blowers tech did not have extra sample port
Blower Inlet	1/15/16	12:19	44.8	33.6	3.6	18.0	-9.19	
Blower Inlet	2/24/16	16:19	30.4	26.0	6.2	37.4	-5.90	
Blower Inlet	2/24/16	17:29	29.3	25.9	6.2	38.6	-6.07	
Blower Inlet	3/24/16	11:23	14.1	7.4	16.4	62.1	-7.24	
Blower Inlet	3/24/16	12:43	29.3	25.1	7.4	38.2	-7.27	
Blower Inlet	4/25/16	15:01	41.1	33.9	3.3	21.7	N/A	
Blower Inlet	4/25/16	16:36	42.1	34.9	3.0	20.0	-6.44	
Blower Inlet	5/25/16	9:00	35.9	31.5	3.6	29.0	N/A	
Blower Inlet	6/14/16	13:29	32.0	28.1	3.8	36.1	-5.49	
Blower Inlet	7/15/16	11:03	32.5	29.3	4.7	33.5	-4.90	
Blower Inlet	7/15/16	13:48	32.5	31.1	4.7	31.7	-5.14	
Blower Inlet	8/19/16	11:00	38.1	31.7	4.2	26.0	-5.68	
Blower Inlet	8/19/16	14:15	38.0	32.5	3.8	25.7	-5.52	
Blower Inlet	9/16/16	10:47	36.0	32.5	3.7	27.8	-7.25	
Blower Inlet	9/16/16	14:57	36.3	32.1	3.6	28.0	-6.38	
Blower Inlet	10/7/16	10:01	35.3	32.7	3.2	28.8	-7.59	
Blower Inlet	10/7/16	11:26	34.4	31.4	3.6	30.6	-7.75	
Blower Inlet	11/22/16	15:23	36.5	31.8	2.6	29.1	-7.94	
Blower Inlet	11/22/16	16:42	34.7	32.7	3.5	29.1	-10.20	
Blower Inlet	12/14/16	10:03	35.2	30.9	3.7	30.2	-8.09	
Blower Inlet	12/14/16	12:56	33.6	29.9	3.1	33.4	-8.20	
Blower Inlet	1/20/17	13:24	41.6	32.9	2.7	22.8	-10.75	

Device ID	Date	Time	CH4 %	CO2 %	O2 %	Balance %	Rel. Press. inches H2O	Comments
LFG VENT 2	12/17/14	13:52	54.2	42.1	0.7	3.0	-1.56	
LFG VENT 2	12/22/14	14:22	56.8	43.2	0.0	0.0	-1.54	
LFG VENT 2	1/7/15	15:12	55.8	41.4	0.4	2.4	-1.69	
LFG VENT 2	1/21/15	12:36	57.1	42.6	0.0	0.3	-0.26	
LFG VENT 2	2/5/15	16:38	51.0	37.3	0.1	11.6	-0.25	
LFG VENT 2	3/6/15	13:52	53.9	40.7	1.1	4.3	-1.84	
LFG VENT 2	4/21/15	13:06	56.7	43.2	0.1	0.0	-2.99	
LFG VENT 2	5/29/15	11:42	55.7	44.3	0.0	0.0	-3.00	Relative pressure obtained using handheld digital manometer
LFG VENT 2	6/30/15	12:26	55.4	44.6	0.0	0.0	-3.55	
LFG VENT 2	7/30/15	12:33	53.5	46.5	0.0	0.0	-4.64	
LFG VENT 2	8/18/15	13:06	54.9	42.6	0.0	2.5	-3.99	
LFG VENT 2	9/10/15	9:20	55.3	42.6	0.1	2.0	-4.32	
LFG VENT 2	10/15/15	14:20	56.1	43.7	0.1	0.1	-2.22	
LFG VENT 2	11/12/15	14:47	56.4	43.6	0.0	0.0	-3.61	
LFG VENT 2	12/30/15	19:17	57.6	41.8	0.6	0.0	-0.89	Portions of LFG piping frozen
LFG VENT 2	1/15/16	12:38	50.9	36.1	2.9	10.1	-7.00	
LFG VENT 2	2/24/16	17:03	48.2	38.1	0.4	13.3	-3.43	
LFG VENT 2	3/24/16	12:20	41.1	30.9	6.1	21.9	-3.13	
LFG VENT 2	4/25/16	15:49	57.3	42.6	0.1	0.0	-3.45	
LFG VENT 2	5/25/16	9:31	57.2	42.8	0.0	0.0	-4.82	
LFG VENT 2	6/14/16	14:47	55.3	40.6	0.0	4.1	-3.86	
LFG VENT 2	7/15/16	13:09	53.6	46.4	0.0	0.0	-3.91	
LFG VENT 2	8/19/16	11:54	47.1	37.2	3.0	12.7	-4.42	
LFG VENT 2	9/16/16	10:55	55.7	43.6	0.2	0.5	-5.14	
LFG VENT 2	10/7/16	11:08	55.3	42.6	0.7	1.4	-4.94	
LFG VENT 2	11/22/16	16:30	55.5	44.2	0.0	0.3	-5.89	
LFG VENT 2	12/14/16	11:26	54.3	41.1	0.5	4.1	-5.34	
LFG VENT 2	1/20/17	14:06	57.1	36.0	2.2	4.7	-5.56	
LFG VENT 3	12/17/14	13:55	51.0	39.4	0.2	9.4	-1.90	
LFG VENT 3	12/22/14	14:19	53.3	39.5	0.6	6.6	-1.53	
LFG VENT 3	1/7/15	14:55	45.5	35.4	2.4	16.7	-1.61	
LFG VENT 3	1/21/15	13:31	50.3	39.5	0.0	10.2	-0.18	
LFG VENT 3	2/5/15	16:30	45.6	35.2	0.1	19.1	-0.22	
LFG VENT 3	3/6/15	13:44	47.5	35.9	3.2	13.4	-2.19	Decreased and opened only 1/4 turn
LFG VENT 3	3/6/15	13:47	48.6	36.8	2.7	11.9	-1.54	
LFG VENT 3	4/21/15	13:03	46.6	39.6	1.2	12.6	-1.75	Open valve for gas probe
LFG VENT 3	5/29/15	11:38	50.0	43.2	0.0	6.8	-3.40	Relative pressure obtained using handheld digital manometer
LFG VENT 3	6/30/15	12:21	49.4	44.3	0.3	6.0	-3.50	
LFG VENT 3	7/30/15	12:30	51.3	46.3	0.1	2.3	-4.70	
LFG VENT 3	8/18/15	13:09	52.0	43.1	0.1	4.8	-3.92	
LFG VENT 3	9/10/15	9:23	48.4	42.6	0.8	8.2	-4.23	
LFG VENT 3	10/15/15	14:17	51.1	43.5	0.7	4.7	-2.25	
LFG VENT 3	11/12/15	14:44	53.3	44.0	0.2	2.5	-2.70	
LFG VENT 3	12/30/15	19:13	52.5	39.3	1.7	6.5	-0.83	Portions of LFG piping frozen
LFG VENT 3	1/15/16	11:14	43.9	32.2	4.9	19.0	-6.89	
LFG VENT 3	2/24/16	17:01	45.0	36.7	0.9	17.4	-3.34	
LFG VENT 3	3/24/16	12:18	49.5	39.6	0.8	10.1	-2.92	
LFG VENT 3	4/25/16	16:21	52.7	42.1	0.2	5.0	-3.27	

Los Alamos County
LFG Extraction System
thru January 2017

Device ID	Date	Time	CH4 %	CO2 %	O2 %	Balance %	Rel. Press. inches H2O	Comments
LFG VENT 5	12/17/14	14:01	54.4	43.7	0.0	1.9	-1.52	
LFG VENT 5	12/22/14	14:08	54.1	43.9	0.0	2.0	-1.22	
LFG VENT 5	1/7/15	14:43	53.3	42.6	0.1	4.0	-1.38	
LFG VENT 5	1/21/15	12:57	53.2	42.8	0.0	4.0	-0.02	
LFG VENT 5	2/5/15	16:21	49.8	38.9	0.1	11.2	-0.12	
LFG VENT 5	3/6/15	13:37	53.9	41.2	0.6	4.3	-0.82	
LFG VENT 5	4/21/15	12:56	53.6	43.3	0.2	2.9	-1.63	
LFG VENT 5	5/29/15	11:29	51.1	43.7	0.0	5.2	-2.60	Relative pressure obtained using handheld digital manometer
LFG VENT 5	6/30/15	12:14	48.4	42.0	0.2	9.4	-2.52	
LFG VENT 5	7/30/15	12:21	48.4	43.1	0.0	8.5	-3.45	
LFG VENT 5	8/18/15	13:16	50.6	39.0	0.2	10.2	-2.63	
LFG VENT 5	9/10/15	9:28	46.3	40.1	0.4	13.2	-3.12	
LFG VENT 5	10/15/15	13:59	47.0	40.5	0.7	11.8	-1.59	
LFG VENT 5	11/12/15	14:33	52.9	43.3	0.0	3.8	-0.13	
LFG VENT 5	12/30/15	19:25	44.2	36.0	0.2	19.6	-0.01	Portions of LFG piping frozen
LFG VENT 5	1/15/16	11:04	53.5	38.4	1.6	6.5	-2.87	
LFG VENT 5	2/24/16	16:54	45.5	38.4	0.1	16.0	-1.33	
LFG VENT 5	3/24/16	12:12	40.4	33.2	4.3	22.1	-1.66	
LFG VENT 5	4/25/16	16:15	52.5	42.0	0.0	5.5	-1.18	
LFG VENT 5	5/25/16	10:13	49.3	40.7	0.1	9.9	-2.77	
LFG VENT 5	6/14/16	14:27	43.6	36.4	0.5	19.5	-1.92	
LFG VENT 5	7/15/16	13:20	41.4	40.2	1.0	17.4	-2.56	
LFG VENT 5	8/19/16	12:02	44.3	37.5	1.6	16.6	-2.87	
LFG VENT 5	9/16/16	11:00	41.7	36.9	1.2	20.2	-3.11	
LFG VENT 5	10/7/16	11:01	28.3	25.9	7.6	38.2	-3.06	
LFG VENT 5	11/22/16	16:25	39.2	35.9	1.4	23.5	-3.15	
LFG VENT 5	12/14/16	11:07	39.7	34.1	1.7	24.5	-2.79	
LFG VENT 5	1/20/17	13:53	47.9	38.1	0.2	13.8	-2.98	
LFG VENT 6	12/17/14	14:04	52.6	41.8	0.7	4.9	-1.25	
LFG VENT 6	12/22/14	14:04	52.0	41.6	0.6	5.8	-1.04	
LFG VENT 6	1/7/15	14:39	44.9	37.4	1.4	16.3	-1.14	
LFG VENT 6	1/21/15	12:53	46.0	38.7	0.0	15.3	0.42	
LFG VENT 6	2/5/15	16:17	46.6	36.4	0.1	16.9	-0.08	
LFG VENT 6	3/6/15	13:25	51.7	39.3	0.8	8.2	-0.53	
LFG VENT 6	4/21/15	12:53	47.4	39.5	0.7	12.4	-1.04	
LFG VENT 6	5/29/15	43:4	37.8	1.0	17.8	11.7	-2.00	Relative pressure obtained using handheld digital manometer
LFG VENT 6	6/30/15	12:10	39.9	35.2	1.7	23.2	-1.90	
LFG VENT 6	7/30/15	12:19	39.5	35.6	2.5	22.4	-2.52	
LFG VENT 6	8/18/15	13:19	42.7	36.5	1.1	19.7	-1.85	
LFG VENT 6	9/10/15	9:31	37.1	33.0	2.6	27.3	-2.13	
LFG VENT 6	10/15/15	13:49	41.7	36.2	1.8	20.3	-1.13	
LFG VENT 6	11/12/15	14:21	49.7	40.4	0.3	9.6	-0.08	
LFG VENT 6	12/30/15	19:28	40.8	34.2	0.1	24.9	-0.04	Portions of LFG piping frozen
LFG VENT 6	1/15/16	11:00	51.5	36.9	1.9	9.7	-1.55	
LFG VENT 6	2/24/16	16:52	42.7	35.6	1.1	20.6	-1.20	
LFG VENT 6	3/24/16	12:08	46.8	37.4	1.2	14.6	-1.49	
LFG VENT 6	4/25/16	16:11	50.0	39.6	0.4	10.0	-0.67	
LFG VENT 6	5/25/16	10:22	45.3	37.2	0.9	16.6	-2.17	

Device ID	Date	Time	CH4 %	CO2 %	O2 %	Balance %	Rel. Press. inches H2O	Comments
MP-8	12/17/14	13:23	54.0	43.8	0.0	2.2	-2.66	
MP-8	12/22/14	11:37	52.5	42.0	0.0	5.5	-2.58	
MP-8	1/7/15	12:25	47.7	40.5	0.0	11.8	-0.94	
MP-8	1/21/15	12:14	51.0	41.4	0.0	7.6	-0.91	
MP-8	2/3/15	12:38	52.5	41.5	0.1	5.9	-0.02	
MP-8	2/5/15	15:29	40.6	35.5	0.2	23.7	-4.53	
MP-8	3/6/15	12:32	37.2	34.8	1.5	26.5	-2.41	
MP-8	4/21/15	11:41	42.6	37.7	0.1	19.6	-3.98	
MP-8	5/29/15	10:33	42.4	37.3	0.0	20.3	-3.80	Relative pressure obtained using handheld digital manometer
MP-8	6/30/15	11:03	42.0	38.5	0.0	19.5	-4.38	
MP-8	7/30/15	11:49	42.3	39.2	0.0	18.5	-5.28	
MP-8	8/18/15	12:57	50.4	39.0	0.2	10.4	-4.67	
MP-8	9/10/15	9:05	45.5	38.4	0.2	15.9	-5.16	
MP-8	10/15/15	13:01	47.2	40.6	0.0	12.2	-2.67	
MP-8	11/12/15	13:43	45.4	40.7	0.0	13.9	-1.40	
MP-8	12/7/15	13:30	49.4	40.8	0.0	9.8	-3.48	
MP-8	1/15/16	12:01	43.6	36.7	1.9	17.8	-5.35	
MP-8	2/24/16	17:17	37.5	35.2	0.5	26.8	-4.88	
MP-8	3/24/16	11:39	26.9	23.7	7.3	42.1	-5.80	
MP-8	4/25/16	15:34	44.2	37.9	0.0	17.9	-5.42	
MP-8	5/25/16	10:41	40.1	36.0	0.0	23.9	-6.16	
MP-8	6/14/16	13:47	40.8	32.2	0.1	26.9	-4.79	
MP-8	7/15/16	11:15	43.2	38.5	0.1	18.2	-4.26	
MP-8	8/19/16	11:21	47.0	36.3	2.2	14.5	-5.07	
MP-8	9/16/16	13:41	41.1	34.9	2.4	21.6	-6.22	
MP-8	10/7/16	10:29	42.0	37.8	0.8	19.4	-6.94	
MP-8	11/22/16	15:51	43.7	40.1	0.0	16.2	-6.95	
MP-8	12/14/16	10:36	41.5	37.4	0.1	21.0	-7.56	
MP-8	1/20/17	13:28	44.3	37.3	0.3	18.1	-7.10	
MP-8R	12/17/14	13:02	26.6	33.3	0.1	40.0	-0.06	
MP-8R	12/22/14	11:41	25.3	32.4	0.1	42.2	0.34	
MP-8R	1/7/15	12:21	13.4	26.1	2.3	58.2	-0.01	
MP-8R	1/21/15	12:18	24.2	31.2	0.0	44.6	0.26	
MP-8R	2/3/15	12:33	21.6	29.4	0.1	48.9	0.12	
MP-8R	2/5/15	15:25	17.8	26.7	1.2	54.3	0.03	
MP-8R	3/6/15	12:39	15.9	26.9	2.0	55.2	0.09	
MP-8R	4/21/15	11:46	12.8	26.7	1.3	59.2	0.26	
MP-8R	5/29/15	10:39	0.1	1.5	21.4	77.0	0.00	Relative pressure obtained using handheld digital manometer
MP-8R	6/30/15	11:00	0.6	7.3	14.8	77.3	0.00	
MP-8R	7/30/15	11:50	0.0	0.2	21.0	78.8	-0.08	
MP-8R	8/18/15	11:42	6.6	24.8	0.6	68.0	0.25	
MP-8R	9/10/15	9:08	1.9	7.3	12.7	78.1	-0.03	
MP-8R	10/15/15	13:05	2.1	16.5	6.1	75.3	0.25	
MP-8R	11/12/15	13:37	7.5	27.4	0.0	65.1	0.11	
MP-8R	12/7/15	13:35	13.5	28.7	0.0	57.8	0.26	
MP-8R	1/15/16	12:05	16.3	29.2	0.0	54.5	0.29	
MP-8R	2/24/16	17:21	9.0	24.3	1.0	65.7	-0.01	
MP-8R	3/24/16	11:35	0.0	0.9	20.5	78.6	0.01	

Device ID	Date	Time	CH4	CO2	O2	Balance	Rel. Press.	Comments
			%	%	%	%	inches H2O	
MP-9	12/17/14	13:30	51.6	44.3	0.0	4.1	-2.28	
MP-9	12/22/14	11:46	50.5	43.6	0.0	5.9	-2.13	
MP-9	1/7/15	15:44	30.5	36.6	0.0	32.9	-2.78	
MP-9	1/21/15	12:36	46.0	42.2	0.0	11.8	-0.32	
MP-9	2/5/15	15:35	40.5	38.6	0.2	20.7	-0.21	
MP-9	2/3/15	12:47	52.5	39.8	0.5	7.2	0.05	
MP-9	3/6/15	12:47	26.5	32.3	1.6	39.6	-1.75	
MP-9	4/21/15	11:57	26.3	33.2	0.0	40.5	-3.27	
MP-9	5/29/15	10:47	11.6	23.9	0.0	64.5	-3.55	Relative pressure obtained using handheld digital manometer
MP-9	6/30/15	11:08	12.9	26.7	0.1	60.3	-3.85	
MP-9	7/30/15	11:55	3.2	20.8	2.8	73.2	-4.79	
MP-9	8/18/15	14:25	38.7	35.4	0.0	25.9	-3.96	
MP-9	9/10/15	9:18	13.0	26.0	0.0	61.0	-4.42	
MP-9	10/15/15	13:10	33.1	34.1	0.0	32.8	-2.32	
MP-9	11/12/15	13:48	36.0	35.5	0.3	28.2	-2.63	
MP-9	12/7/15	13:25	43.0	38.6	0.0	18.4	-3.18	
MP-9	1/15/16	11:39	33.7	29.8	4.9	31.6	-7.30	
MP-9	2/24/16	16:23	25.3	30.8	0.3	43.6	-3.61	
MP-9	3/24/16	11:47	13.8	21.5	5.6	59.1	-3.22	
MP-9	4/25/16	15:29	37.6	35.9	0.2	26.3	-3.65	
MP-9	5/25/16	10:51	11.3	25.6	0.2	62.9	-5.32	
MP-9	6/14/16	13:58	18.9	26.1	0.2	54.8	-3.97	
MP-9	7/15/16	11:46	12.1	26.9	0.1	60.9	-3.59	
MP-9	8/19/16	11:25	29.3	29.7	2.1	38.9	-4.08	
MP-9	9/16/16	13:46	23.2	29.2	0.8	46.8	-4.75	
MP-9	10/7/16	10:37	12.3	25.8	0.8	61.1	-3.81	
MP-9	11/22/16	15:47	24.0	30.8	0.0	45.2	-5.15	
MP-9	12/14/16	10:42	17.0	27.6	0.1	55.3	-5.61	
MP-9	1/20/17	14:16	33.2	33.0	0.3	33.5	-6.94	
MP-9R	12/17/14	13:36	40.7	39.5	0.0	19.8	0.07	
MP-9R	12/22/14	14:40	40.9	39.8	0.0	19.3	0.21	
MP-9R	1/7/15	12:42	31.2	36.9	0.1	31.8	0.04	
MP-9R	1/21/15	12:40	25.2	35.0	0.0	39.8	0.05	
MP-9R	2/5/15	15:41	25.5	34.0	0.1	40.4	-0.05	
MP-9R	3/6/15	12:55	21.8	32.5	0.2	45.5	0.10	
MP-9R	4/21/15	12:15	6.1	24.9	0.2	68.8	0.25	
MP-9R	5/29/15	10:55	0.1	2.1	21.1	76.7	0.00	Relative pressure obtained using handheld digital manometer
MP-9R	6/30/15	11:47	0.0	9.3	12.1	78.6	0.02	
MP-9R	7/30/15	11:59	0.0	0.1	21.3	78.6	0.01	
MP-9R	8/18/15	13:36	0.0	1.7	19.7	78.6	0.17	
MP-9R	9/10/15	9:46	0.0	0.4	19.5	80.1	0.22	
MP-9R	10/15/15	13:25	0.0	2.5	15.6	81.9	0.17	
MP-9R	11/12/15	13:55	10.3	20.7	0.1	68.9	-0.02	
MP-9R	12/7/15	13:45	17.0	25.6	0.0	57.4	0.02	
MP-9R	1/15/16	11:46	24.0	29.3	0.0	46.7	0.03	
MP-9R	2/24/16	17:13	3.0	8.7	15.1	73.2	-0.01	
MP-9R	3/24/16	11:44	0.0	0.7	20.6	78.7	0.02	
MP-9R	4/25/16	15:11	2.1	23.0	0.1	74.8	0.26	

Los Alamos County
LFG Extraction System
thru January 2017

Device ID	Date	Time	CH4 %	CO2 %	O2 %	Balance %	Rel. Press. inches H2O	Comments
MP-10R	7/30/15	12:05	0.1	0.1	21.4	78.4	0.02	
MP-10R	8/18/15	13:31	0.5	6.8	18.2	74.5	0.26	
MP-10R	9/10/15	9:40	0.0	0.5	19.7	79.8	0.16	
MP-10R	10/15/15	13:33	0.0	0.8	18.9	80.3	0.19	
MP-10R	11/12/15	14:05	35.5	35.9	0.0	28.6	-0.03	
MP-10R	12/7/15	13:52	39.6	37.0	0.0	23.4	0.04	
MP-10R	1/15/16	11:28	43.5	38.4	0.0	18.1	0.20	
MP-10R	2/24/16	16:31	26.3	31.6	0.2	41.9	0.00	
MP-10R	3/24/16	11:51	2.4	3.5	18.6	75.5	0.02	
MP-10R	4/25/16	15:24	27.4	33.2	0.0	39.4	0.31	
MP-10R	5/25/16	12:03	19.4	30.6	0.4	49.6	0.05	
MP-10R	6/14/16	14:05	0.0	3.7	16.5	79.8	0.09	
MP-10R	7/15/16	11:37	0.0	1.6	19.0	79.4	-0.01	
MP-10R	8/19/16	13:49	23.9	29.1	2.0	45.0	0.04	
MP-10R	9/16/16	13:26	0.0	1.2	19.1	79.7	0.01	
MP-10R	10/7/16	10:44	0.0	0.2	21.3	78.5	0.06	
MP-10R	11/22/16	16:00	0.3	8.0	15.8	75.9	-0.19	
MP-10R	12/14/16	12:03	3.1	9.7	13.0	74.2	0.06	
MP-10R	1/20/17	10:03	20.0	28.9	0.0	51.1	-0.03	
MP-11	12/17/14	14:52	54.0	42.9	0.0	3.1	-1.85	
MP-11	12/22/14	15:41	49.0	41.3	0.0	9.7	-1.93	
MP-11	1/7/15	15:52	48.4	39.8	0.0	11.8	-1.47	
MP-11	1/21/15	13:12	49.1	40.8	0.0	10.1	-0.12	
MP-11	2/5/15	16:10	52.9	39.5	0.1	7.5	-0.11	
MP-11	3/6/15	13:16	48.7	38.9	0.2	12.2	-0.28	
MP-11	4/21/15	14:15	48.2	38.8	0.1	12.9	-2.48	Lateral pipe broken when arrived at site, repaired
MP-11	5/29/15	11:11	41.0	38.3	0.0	20.7	-2.70	Relative pressure obtained using handheld digital manometer
MP-11	6/30/15	12:03	36.4	36.0	0.4	27.2	-2.79	
MP-11	7/30/15	12:09	31.4	34.0	1.7	32.9	-3.80	
MP-11	8/18/15	13:26	43.0	34.9	0.5	21.6	-2.96	
MP-11	9/10/15	9:56	35.0	31.8	0.4	32.8	-3.21	
MP-11	10/15/15	13:44	39.5	36.7	0.1	23.7	-1.57	
MP-11	11/12/15	14:12	45.7	39.9	0.0	14.4	-0.16	
MP-11	12/7/15	13:10	52.6	39.6	0.0	7.8	-0.02	
MP-11	12/7/15	13:12	52.9	40.2	0.0	6.9	-0.06	Portions of LFG piping frozen
MP-11	1/15/16	10:40	47.2	39.1	0.0	13.7	-2.29	
MP-11	2/24/16	16:40	38.3	35.2	0.3	26.2	-1.58	
MP-11	3/24/16	12:01	32.1	28.6	5.3	34.0	-1.31	
MP-11	4/25/16	15:58	45.2	38.1	0.0	16.7	-1.04	
MP-11	5/25/16	11:03	40.9	36.4	0.0	22.7	-2.71	
MP-11	6/14/16	14:10	38.2	31.8	0.2	29.8	-2.00	
MP-11	7/15/16	13:43	37.0	37.7	0.1	25.2	-2.43	
MP-11	8/19/16	11:31	42.8	35.6	1.0	20.6	-2.91	
MP-11	9/16/16	14:44	33.0	32.3	1.9	32.8	-2.24	
MP-11	10/7/16	10:48	35.0	35.1	0.6	29.3	-3.24	
MP-11	11/22/16	16:04	36.8	37.0	0.0	26.2	-3.27	
MP-11	12/14/16	12:48	36.0	33.8	0.2	30.0	-2.73	
MP-11	1/20/17	13:42	40.2	35.9	0.4	23.5	-3.29	

Los Alamos County
LFG Extraction System
thru January 2017

Device ID	Date	Time	CH4	CO2	O2	Balance	Rel. Press.	Comments
MP-12R	10/15/15	12:15	0.0	0.3	20.5	79.2	inches H2O -0.06	
MP-12R	11/12/15	15:07	4.7	18.7	7.2	69.4	0.19	
MP-12R	1/15/16	12:55	7.2	23.9	1.3	67.6	0.38	
MP-12R	2/24/16	17:46	6.1	20.1	4.2	69.6	0.17	
MP-12R	3/24/16	12:35	0.0	0.5	21.0	78.5	0.05	
MP-12R	4/25/16	16:49	7.7	24.7	0.5	67.1	0.97	
MP-12R	5/25/16	12:27	3.7	18.5	4.5	73.3	0.10	
MP-12R	6/14/16	15:36	3.1	17.3	3.5	76.1	0.11	
MP-12R	7/15/16	12:36	2.8	14.8	9.3	73.1	-0.22	
MP-12R	8/19/16	13:26	3.1	15.6	8.3	73.0	-0.34	
MP-12R	9/16/16	14:06	2.7	13.4	9.0	74.9	0.06	
MP-12R	10/7/16	10:11	0.0	1.8	21.0	77.2	-0.37	
MP-12R	11/22/16	16:25	1.2	8.8	15.1	74.9	-0.28	
MP-12R	12/14/16	12:16	2.1	12.8	10.5	74.6	0.10	
MP-12R	1/20/17	11:47	3.0	17.8	4.3	74.9	0.01	

indicates gas probe at I indicates gas probe at landfill boundary

Relative Pressure Collected on May 29, 2015 was with a handheld digital manometer

NR - data not recorded