

Interrogatory # 43

REDACTED

Referring to page 3, lines 12 – 19:

- a. Please explain what the “vehicle barrier system” (line 17) is and what the functions of this system are.
- b. Please explain how the \$1,303,543 vehicle barrier system-related costs are derived.
- c. Please explain why a vehicle barrier system is appropriate for recovery through the ECRC.

Answer

- a. The “Vehicle Barrier System” is a physical security barrier fence that is required by the Nuclear Regulatory Commission to prevent unauthorized access to the Crystal River Unit 3 controlled area. The Unit 4 and 5 Clean Air Projects necessitated a new VBS to accommodate additional truck traffic required for delivery of limestone and urea as well as for the removal of gypsum. Based on traffic studies performed it was determined that the additional vehicles would exceed the capacity of the existing Access Control Point (“ACP”) which provides access to the entire complex and, as such, must meet the nuclear security requirements. The resulting Vehicle Barrier System preserves the security access requirements mandated for the nuclear plant, while allowing access of the aforementioned delivery trucks to the complex without the need for them to enter the controlled area. The function of the Vehicle Barrier System is to prevent unauthorized access to the Crystal River Unit 3 controlled area.
- b. The Vehicle Barrier System related costs of \$1,303,543 is derived from a Contract Labor Costs of \$1,303,543 which consists of the installation of roughly [REDACTED]
[REDACTED]
- c. The new VBS is appropriate for recovery through the ECRC because it was necessitated by the Crystal River Clean Air Projects and PEF would not have incurred the costs for the VBS but for the need to comply with CAIR and related environmental regulations. Had it not been for the additional traffic required for the Crystal River Clean Air Projects, a new VBS would not have been necessary to comply with NRC requirements.

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POD #23

REDACTED

Crystal River Security Access, Gate 10 ACP VSA Report

April 12-14, 2010

CBE

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PEF-POD23-001

DOCUMENT NUMBER-DATE

08153 SEP 29 09

FPSC-COMMISSION CLERK

Security Access Charter

Problem Statement:

Once the Crystal River Clean Air construction project is completed, Gate 10 can no longer be operated as a "Construction Gate." More importantly, the cost of operating this gate moves to PEF – at \$1.2M/year a better alternative must be developed.

Objectives:

- Review all stakeholder objectives & needs.
- Determine best alternative for PEF (CREC facility) considering VBS configuration, ACP location, Coal Combustion Products & Limestone traffic, Nuclear Security regulation, Corporate Security Requirements (NERC-CIP, MTSA, and BPI), USG contract, new landfill location, and Employee travel routes.
- Determine short term cost requirements for Gate 10 operation
- Develop unified business plan for a long term solution meeting minimum regulatory requirements.

Project Scope:

The scope of this VSA will be to evaluate current state to determine best alternative to resolve potential closure of security Gate 10 and associated traffic patterns. Develop a long term plan considering all stakeholders & objectives.

Team Sponsor: Rob Odom (CR Operations Manager)

Team Leader(s): Jay Chesser (CY Ops Supt)

Facilitators: Vinny Finocchiaro / Rob Krall

Participants:

- John Halm (Fuels)
- Jamie Long (CRS – Ops Supt)
- Steve Marchigiano (Clean Air Supt)
- Gary Mitchell / Matt Widener (CR3 Security)
- Gwen Roof (PGF - Materials)
- Emilio Caragol (Corporate Security)

Ad-hoc (for data/input to team):

- Darren Myers (Corp. Security)
- Rob Reynolds (Fuels) (Jay Chesser to contact)

PEF-POD23-002

Team Expectations

- Develop a plan for Gate 10 that all parties can support
- Understand impacts → Develop a workable plan
- Accommodate the Flammable/Chemical Storage Room for Stores folks
- Let data drive the solution
- Develop a plan that doesn't segregate the site physically
- Think of lifecycle costs – apply EESY+ to justify the decision
- Minimize the impact to Scrubber Operations
- Compliance in the lowest cost option
- More efficient option than current
- Better cost alternative → current \$1.2M/year operating costs

Base Assumptions

- Gate 10 can no longer operate as a “Construction Gate”
- Next three years, CRN Fly Ash disposed in the Landfill
- Additional \$2/ton incremental charge for hauling CRN Ash through ACP to the Landfill

● [REDACTED]

Current State

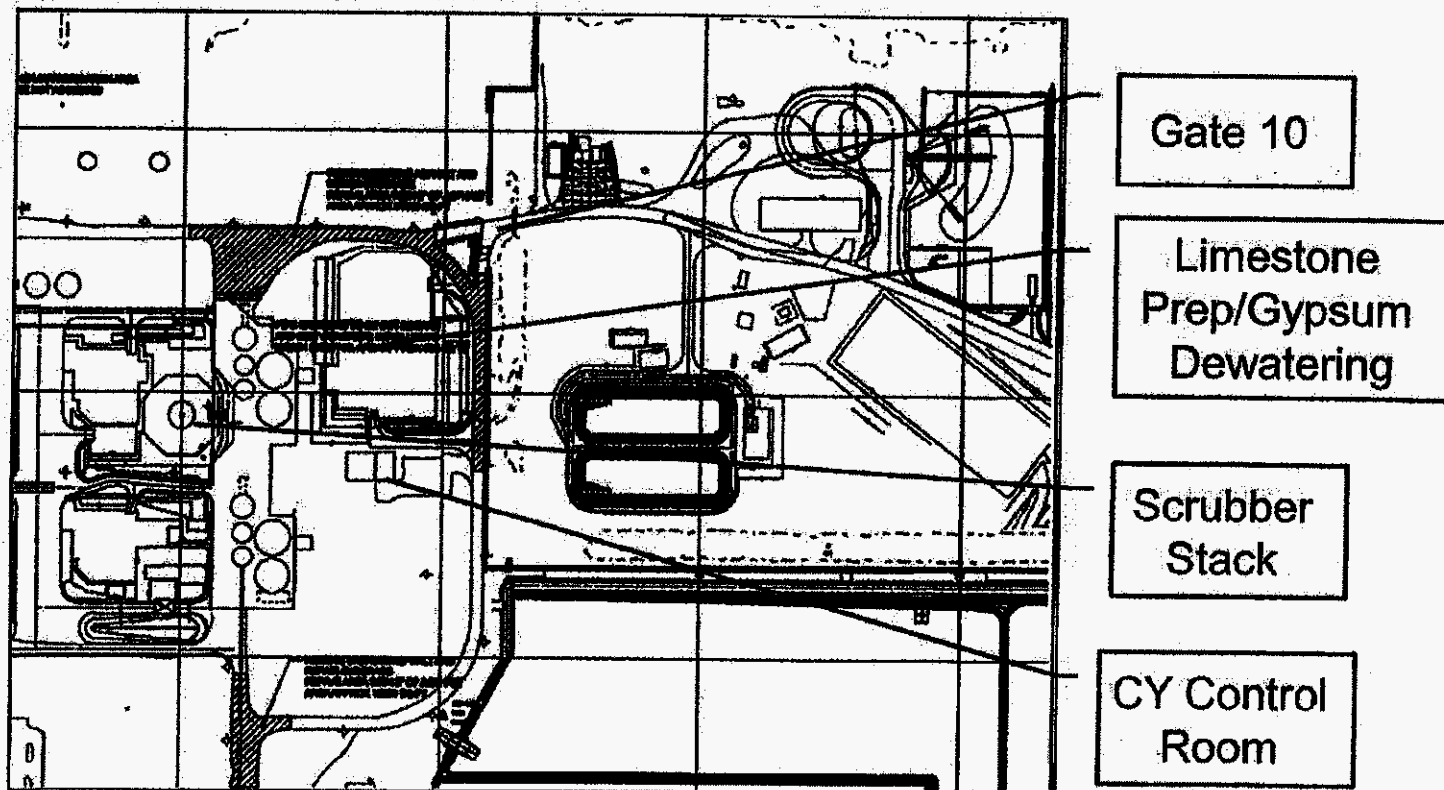
- GATE 10 Operating Costs – \$1.2M/yr to operate with [REDACTED] with 24x7 coverage
- Comparitively, the Main ACP Operating Cost: \$1.6M/year
- Main ACP Traffic Flow

	<u>Non Outage</u>	<u>Outage</u>	
Fossil	[REDACTED]	[REDACTED]	2
		deliveries, contractors/trucks	

- Incremental expense for Ash Disposal: \$400K due to Gate 10
- Relevant Regulations:
 - ◆ Nuclear Security
 - ◆ DOT
 - ◆ MTSA
 - ◆ Rail Security
 - ◆ NERC-CIP
 - ◆ BCI (Tier 1)
 - ◆ CFATS

Current State

Gate 10 originally setup to accommodate EPCR
Construction Traffic



PEF-POD23-006

Current State

Traffic Flow: Clean Air and CY

- **Clean Air :**
 - ◆ Limestone in: 25-75 trucks/day
 - ◆ Gypsum out: 100-120 trucks/day
- **Unit 4&5: Ash 70 trucks/day**
- **Unit 1&2: Ash 30 trucks/day**

Current State

Gate 10

PEF-POD23-008

Walk down Findings

- Need movable barriers on east and west side of CRN centerline road
- Evaluate cleaning and drainage
- Do we need to pave turn around area
- Impact on fire hydrants
- Evaluate security of breaker rooms (card access)
- VBS Options
 - ⊗ ● 2006A: [REDACTED] 1
 - ◆ 2006 Original: [REDACTED] 2

PEF-POD23-009

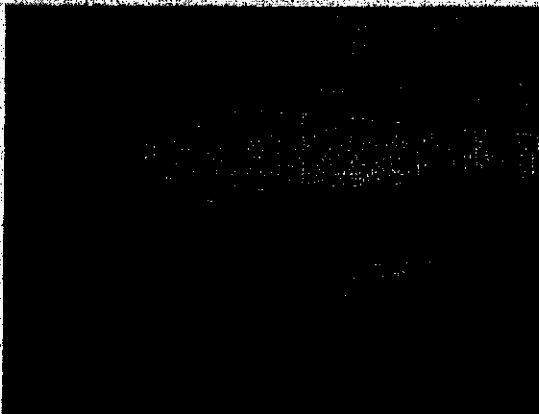
Walk-down Findings



Ash Loading – looking North



Route to Gate 10 – looking East



Possible turnaround areas –
Option 2006A



VSA Brainstrust



PEF-POD23-010

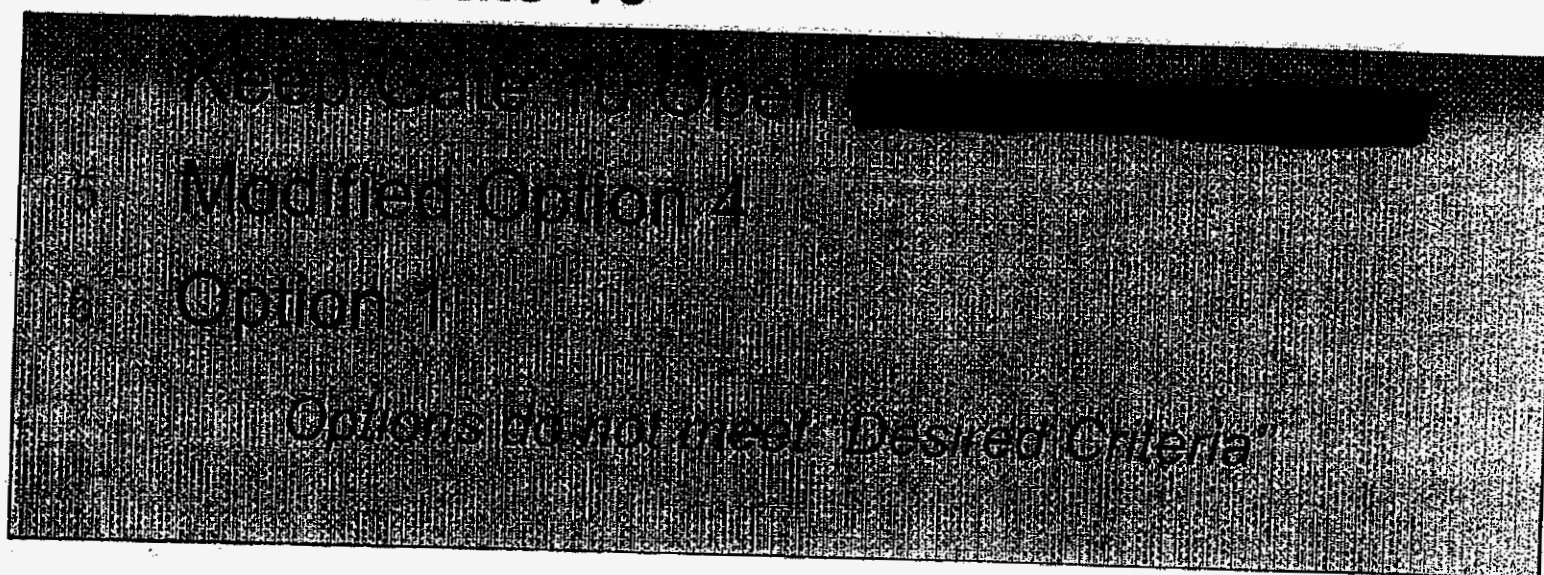
Desired Characteristics – Future State

- Most efficient/cost effective/safest solution ... considering both initial and life-cycle costs → Lowest cost option for PEF
- [REDACTED] for limestone/gypsum traffic 1
- Don't add another ACP – around \$6M development and installation costs ... plus the annual operating expenses
- [REDACTED] – north to south – for fossil 2
- Maintain ERC response time
- CR 4 & 5 Ash trucks [REDACTED] 3
- [REDACTED] for rail traffic security and any additional vehicle gates 4
- Meet all security requirements

PEF-POD23-011

Option Development

1. 2006 Original
2. 2006A
3. Close Gate 10



PEF-POD23-012

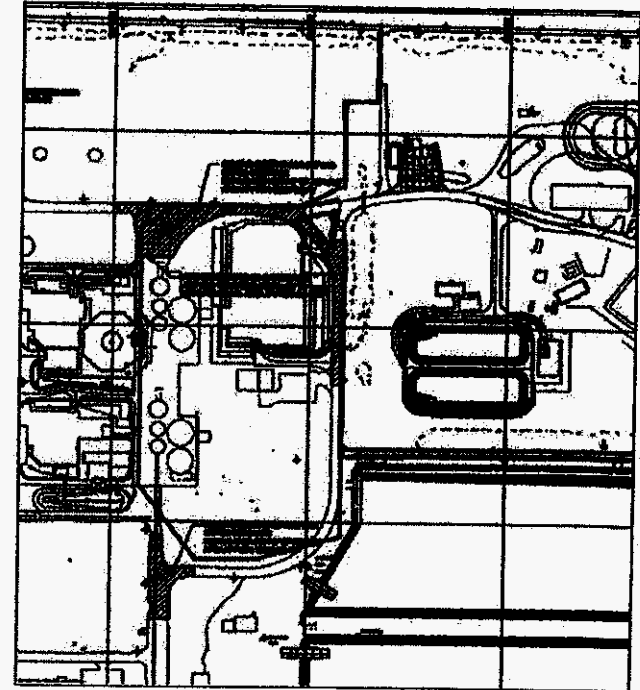
Option Analysis

Option 2006 Original

A

2006 - Original Plan	
Operating Expenses	(\$1.2M)
Installation Costs	Install VBS (██████████) = \$900K Add ██████████ (\$30K) 35 and 36 ██████████ ██████████ ~ \$80K
Security Requirements	██████████
Operational Efficiency	██████████ North CY Control Room, Gypsum Dewatering, Limestone Preparation, ... ██████████ Limestone unloading and storage - and - Gypsum conveying and stock-out. Impacts maintenance of the ██████████ ██████████ Save \$1/ton for ash removal (\$400K Savings O&M)

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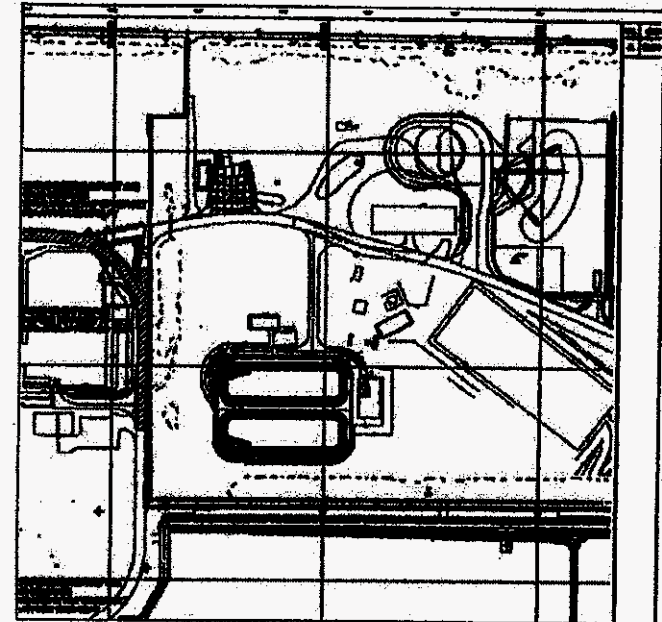


Net Present Value: 30 year depreciation – \$1.341M
B/C: 2.0
Payback: by 2015

Option Analysis

Close Gate 10 Option

Operating Expenses	(\$1.2M)
Installation Costs	Install barrier (\$5K)
Security Requirements	Yes
Operational Efficiency	<p>All CRN Ash removal now goes through ACP (\$2/tons additional cost - \$800K annually)</p> <p>Limestone unloading and storage - and - Gypsum conveying and stock-out</p> <p>Gypsum/Limestone operations and the Coal Pile treatment operations</p>

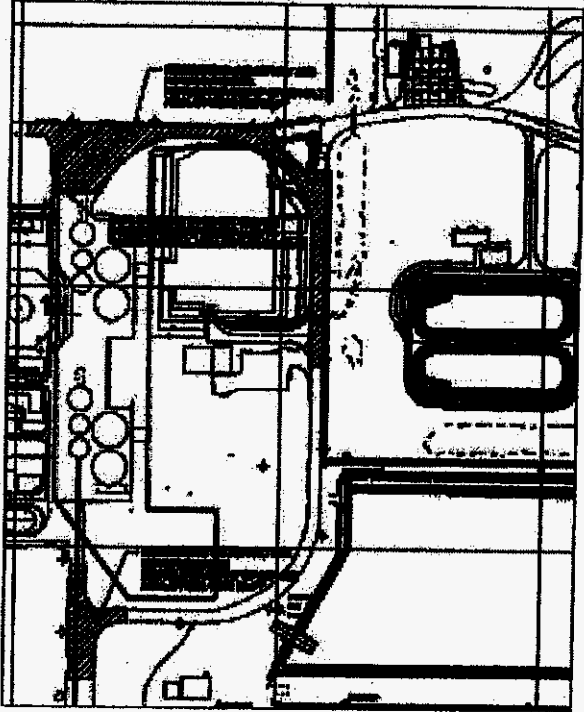


Net Present Value: 30 year depreciation – (\$2.6M)

Option Analysis

Option 2006 A

2006 A	
Operating Expenses	(\$1.2M)
Installation Costs	Pave turnaround (Cost TBD)
	Install VBS [redacted] = \$1.3 M
	[redacted] (\$80K)
Security Requirements	Yes, [redacted]
Operational Efficiency	[redacted] Limestone unloading and storage - and - Gypsum conveying and stock-out Save \$1/ton for ash removal (\$400K Savings O&M)



Net Present Value: 30 year depreciation – \$1.285M
B/C: 1.9
Payback: by 2016

Option chosen?
Yes. per Jack 4/11



Recommendation

Option 2006A

- Cost neutral with other viable option
- Allows for flow of materials and personnel
- Protects key assets and [REDACTED] 1
- Morale – minimizing the separation between craft and equipment
- Allows for [REDACTED] of Limestone, Gypsum and CRN ash transport 2
- Minimizes traffic impact through main ACP
- Minimizes ash traffic and related housekeeping

PEF-POD23-016

Action Items

	Action	Who	When
1	Perform Coordinate an Environmental impact on our recommended option	Cindy, Erica	ASAP – estimate 11/1
2	Based on Option selected, confirm actual VBS cost	Matt Pave Rite	5/31
3	Short Term solution – [REDACTED]	Team to discuss with Leadership at Report Out	4/14
4	Identify the date when Gate 10 O&M expenses transfer to PEF	Team to discuss with Leadership at Report Out	4/14
5	Change the ash scales to certified scales	Jay	5/31

PEF-POD23-017

Action Items (continued)

	Action	Who	When
6	Determine need for additional scales	John Halm	6/30
7	Determine security requirements for North Road Gypsum/ limestone operations access	Emillio	5/31
8	Based on recommended option: verify ERC response and impact – also, evaluate fire hydrant use	Nick	12/31
9	Develop and communication plan to all stakeholders to explain recommendations Why? Future operation (Coordinate with corporate communications)	Jay, Rob Odom, and Matt	5/31
10	Assign a PM - update PAF/ESSY	Rob	4/30

PEF-POD23-018

Action Items (continued)

	Action	Who	When
11	Determine Ideal VBS corridor	PM	7/15
12	Complete Engineer Analysis of 2006A	PM, Nuc security	TBD
13	Determine funding for this project	Discuss at today's Report Out	4/14

PEF-POD23-019



Backup Slides

PEF-POD23-020

Option Analysis

Viable Options

	2006 - Original Plan	2006 A Plan	Close Gate 10
	Operating Expenses	(\$1.2M)	(\$1.2M)
1	Installation Costs	Pave turnaround (Cost TBD)	Installation (Cost TBD)
2		Install VBS [REDACTED] (\$1.3 M)	
3		(Include: [REDACTED]...)	
4	Security Requirements	Yes, [REDACTED]	[REDACTED]
5	Operational Efficiency	[REDACTED] Limestone unloading and storage - and - Gypsum conveying and stockout	[REDACTED] Limestone unloading and storage - and - Gypsum conveying and stockout
6		[REDACTED] Save \$1/ton for ash removal (\$250K Savings O&M)	[REDACTED] Save \$1/ton for ash removal (\$250K Savings O&M)
7		[REDACTED]	[REDACTED]
8		[REDACTED]	[REDACTED]
9	Characteristics not met	Effects access to truck scales adjacent to Construction Trailers	[REDACTED]
10		[REDACTED]	[REDACTED]

PEF-POD23-021

Option Analysis

Non-viable Options

Operating Expenses	
Installation Costs	
Security Requirements	
Operational Efficiency	
Characteristics not met	

PEF-POD23-022

Option Analysis Option – 2006 Original

	A	B	C		
	2006 - Original Plan	Assumptions	Installation	Operating Expenses	Productivity
1	[REDACTED]	Gate 10 no longer in operation Fly ash cost estimates are based on current state - not the ammoniated ash state			
2		Revisit the stormwater control / drainage permit	(\$900K) VBS (\$80K) [REDACTED] (\$30K) [REDACTED]		
3			\$1.1M Instal. cost		
4					
5					
6				\$400K ash removal (\$60K productivity losses)	3.9 MHR CY 0.5 MHR Clean Air 0.4 MHR Stores 5.0 MHRs total/day
7		[REDACTED] to Fly Ash hoppers (\$400K savings by late summer)			
8					
9					
			\$1.1M Installation/Capital		

PEF-POD23-023

Option Analysis

Option – 2006A

	A 2006 A	B	Assumptions	Installation	Operating Expenses	Productivity
Operating Expenses	[REDACTED]	[REDACTED]	Gate 10 no longer in operation Fly ash cost estimates are based on current state - not the ammoniated ash state			
Installation Costs	[REDACTED]	[REDACTED]	Revisit the stormwater control / drainage permit	(\$1.3M) VBS (\$80K) Add two turnstiles (\$1.4M) may have to pave the turn-around area		
Security Requirements	[REDACTED]	[REDACTED]	[REDACTED]			
Operational Efficiency	[REDACTED]	[REDACTED]			\$400K ash removal sav. (\$24K productivity)	1.0 MHR CY 0.6 MHR Clean Air 0.4 MHR Stores 2.0 MHRs/day
				\$1.4M Installation/Capital		

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PEF-POD23-024

Crystal River Security Access, Gate 10 ACP VSA Report

April 12-14, 2010



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Security Access Charter

Problem Statement:

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Objectives:

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Ad-hoc (for data/input to team):

- Darren Myers (Corp. Security)
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PEF-POD23-002

Team Expectations

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- Understand impacts → Develop a workable plan
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- Additional \$2/ton incremental charge for hauling CRN Ash through ACP to the Landfill

● [REDACTED]

Current State

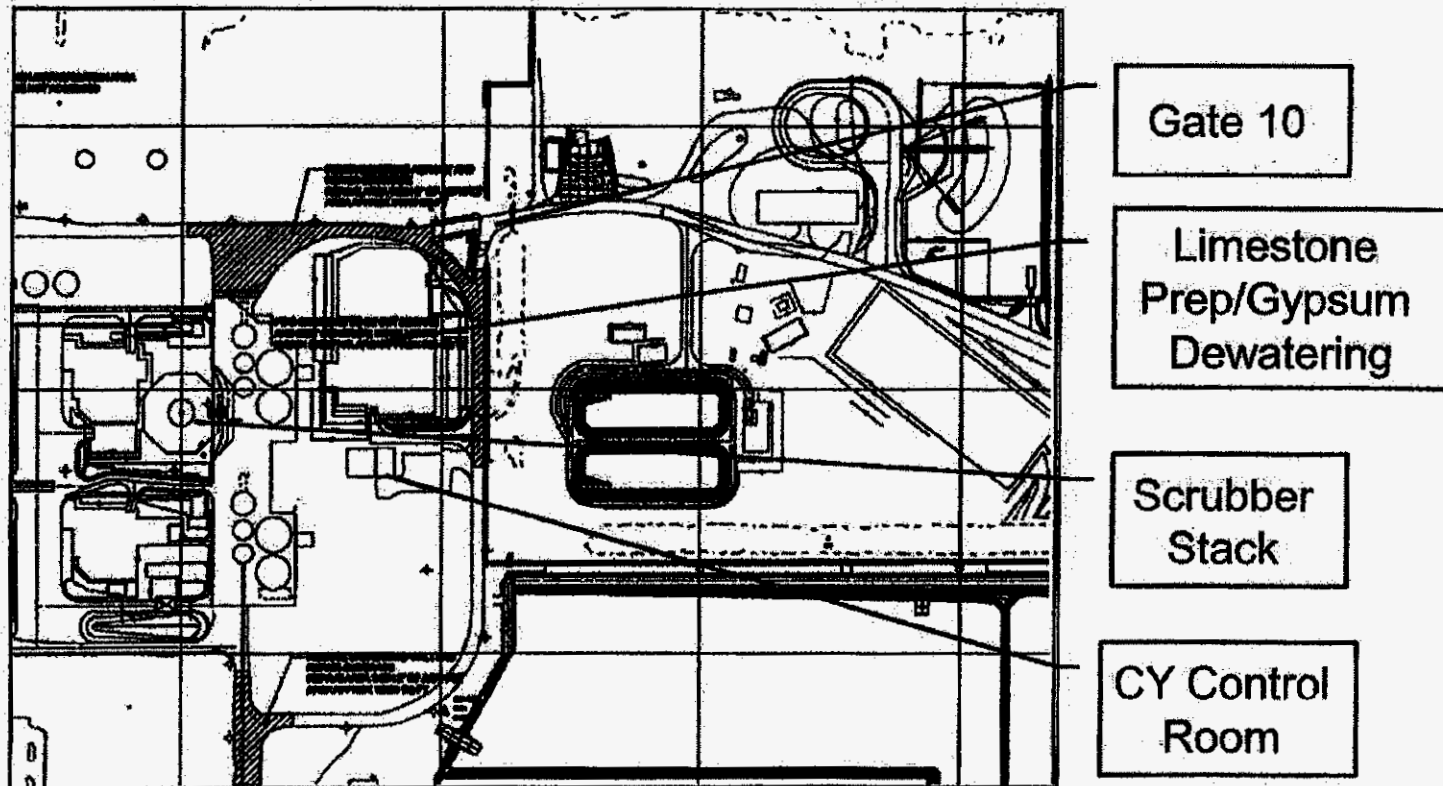
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Fossil	[REDACTED]	[REDACTED]	2
		deliveries, contractors/trucks	

- Incremental expense for Ash Disposal: \$400K due to Gate 10
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 - Nuclear Security
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Construction Traffic



PEF-POD23-006

Current State

Traffic Flow: Clean Air and CY

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Current State

Gate 10

PEF-POD23-008

Walk down Findings

- Need movable barriers on east and west side of CRN centerline road
- Evaluate cleaning and drainage
- Do we need to pave turn around area
- Impact on fire hydrants
- Evaluate security of breaker rooms (card access)
- VBS Options
 - ⊛ * 2006A: [REDACTED] 1
 - ◆ 2006 Original: [REDACTED] 2

PEF-POD23-009

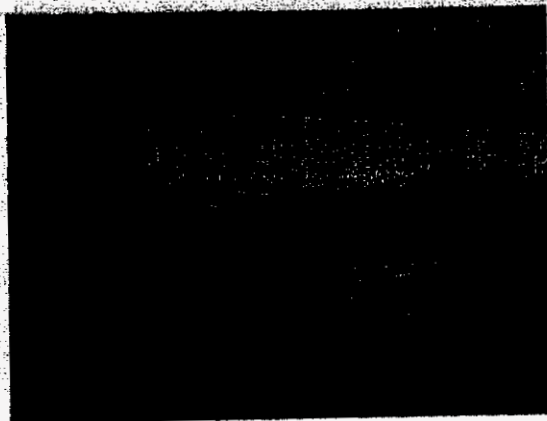
Walk-down Findings



Ash Loading – looking North



Route to Gate 10 – looking East



Possible turnaround areas –
10 Option 2006A



VSA Brainstrust

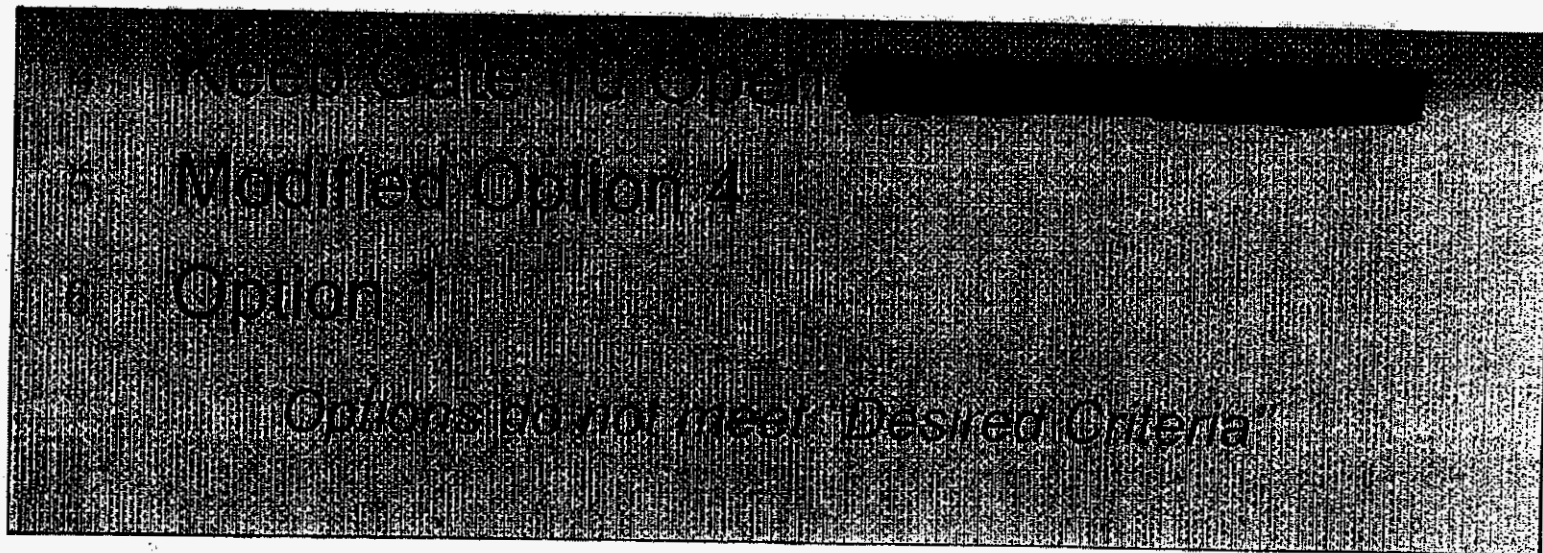


Desired Characteristics – Future State

- Most efficient/cost effective/safest solution ... considering both initial and life-cycle costs → Lowest cost option for PEF
- [REDACTED] for limestone/gypsum traffic 1
- Don't add another ACP – around \$6M development and installation costs ... plus the annual operating expenses
- [REDACTED] – north to south – for fossil 2
- Maintain ERC response time
- CR 4 & 5 Ash trucks [REDACTED] 3
- [REDACTED] for rail traffic security and any additional vehicle gates 4
- Meet all security requirements

Option Development

1. 2006 Original
2. 2006A
3. Close Gate 10



PEF-POD23-012

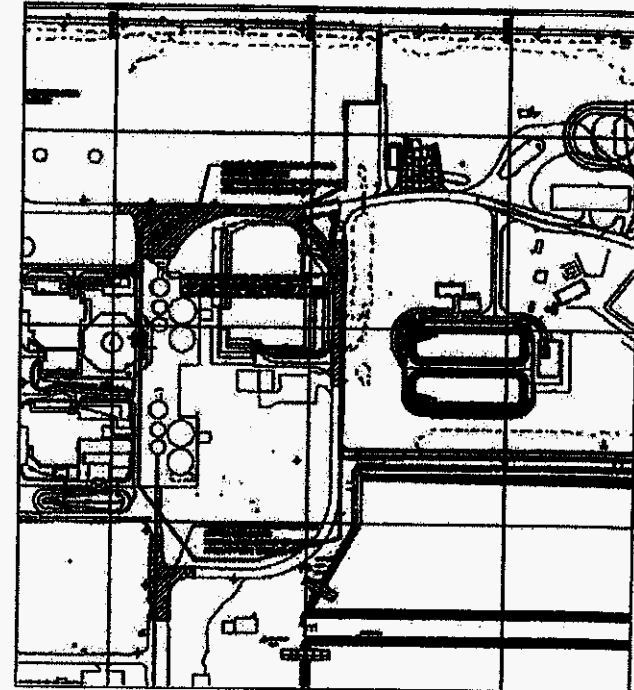
Option Analysis

Option 2006 Original

A

2006 - Original Plan	
Operating Expenses	(\$1.2M)
Installation Costs	Install VBS (██████████) = \$900K Add ██████████ (\$30K) 35 and 36 ██████████ ██████████ ~ \$80K
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Operational Efficiency	██████████ North CY Control Room, Gypsum Dewatering, Limestone Preparation, ... ██████████ Limestone unloading and storage - and - Gypsum conveying and stock-out Impacts maintenance of the ██████████ ██████████ Save \$1/ton for ash removal (\$400K Savings O&M)

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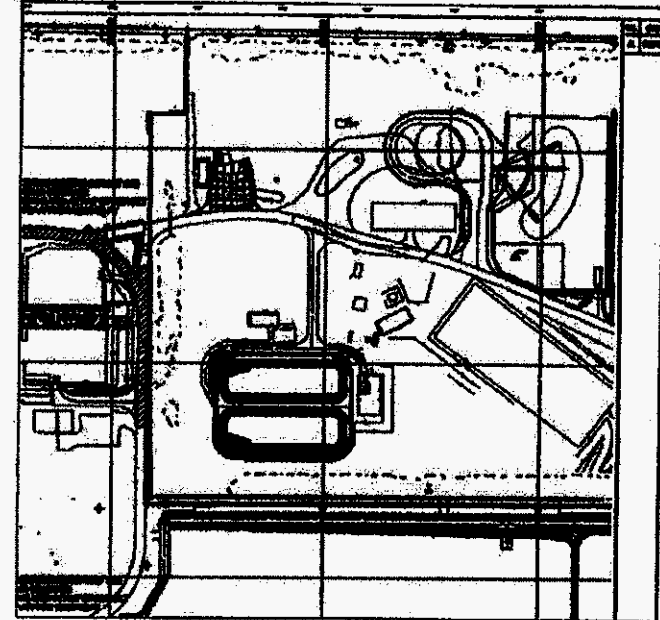


Net Present Value: 30 year depreciation – \$1.341M
B/C: 2.0
Payback: by 2015

Option Analysis

Close Gate 10 Option

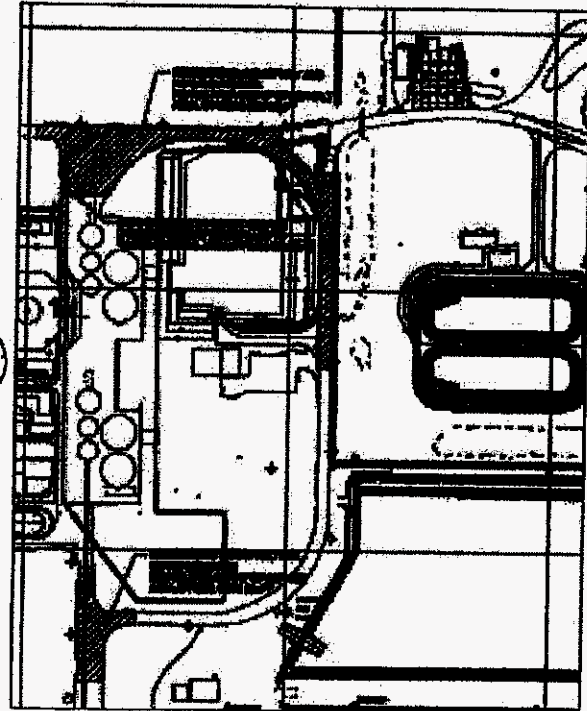
Operating Expenses	(\$1.2M)
Installation Costs	Install barrier (\$5K)
Security Requirements	Yes
Operational Efficiency	<p>All CRN Ash removal now goes through ACP (\$2/tons additional cost - \$800K annually)</p> <p>Limestone unloading and storage - and - Gypsum conveying and stock-out</p> <p>Gypsum/Limestone operations and the Coal Pile treatment operations</p>



Net Present Value: 30 year depreciation – (\$2.6M)

Option Analysis Option 2006 A

2006 A	
Operating Expenses	(\$1.2M)
Installation Costs	Pave turnaround (Cost TBD)
	Install VBS [REDACTED] = \$1.3 M
	[REDACTED] (\$80K)
Security Requirements	Yes, [REDACTED]
Operational Efficiency	[REDACTED] Limestone unloading and storage - and - Gypsum conveying and stock-out Save \$1/ton for ash removal (\$400K Savings O&M)



Net Present Value: 30 year depreciation – \$1.285M
B/C: 1.9
Payback: by 2016

PEF-POD23-015

Option Chosen?
Yes - per Jack 4/11



Recommendation

Option 2006A

- Cost neutral with other viable option
- Allows for flow of materials and personnel
- Protects key assets and [REDACTED] 1
- Morale – minimizing the separation between craft and equipment
- Allows for [REDACTED] of Limestone, Gypsum and CRN ash transport 2
- Minimizes traffic impact through main ACP
- Minimizes ash traffic and related housekeeping

Action Items

	Action	Who	When
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PEF-POD23-017

Action Items (continued)

	Action	Who	When
6	Determine need for additional scales	John Halm	6/30
7	Determine security requirements for North Road Gypsum/ limestone operations access	Emillio	5/31
8	Based on recommended option, verify ERC response and impact – also, evaluate fire hydrant use	Nick	12/31
9	Develop and communication plan to all stakeholders to explain recommendations Why? Future operation (Coordinate with corporate communications)	Jay, Rob Odom, and Matt	5/31
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PEF-POD23-018

Action Items (continued)

	Action	Who	When
11	Determine Ideal VBS corridor	PM	7/15
12	Complete Engineer Analysis of 2006A	PM, Nuc security	TBD
13	Determine funding for this project	Discuss at today's Report Out	4/14

PEF-POD23-019



Backup Slides

PEF-POD23-020

Option Analysis Viable Options

	2006 - Original Plan	2006 A Plan	Close Gate 10
	Operating Expenses	(\$1.2M)	(\$1.2M)
1 2 3	Installation Costs	Pave turnaround (Cost TBD) Install VBS [redacted] \$1.3 M (Include: [redacted]...)	[redacted]
4 5	Security Requirements	Yes, [redacted]	[redacted]
6 7 8 9 10	Operational Efficiency	[redacted] Limestone unloading and storage - and - Gypsum conveying and stockout Save \$1/ton for ash removal (\$250K Savings O&M)	[redacted]
	Characteristics not met	Effects access to truck scales adjacent to Construction Trailers	[redacted]

PEF-POD23-021

Option Analysis

Non-viable Options

Operating Expenses	
Installation Costs	
Security Requirements	
Operational Efficiency	
Characteristics not met	

PEF-POD23-022

Option Analysis

Option – 2006 Original

	A 2006 - Original Plan	B Assumptions	C Installation	Operating Expenses	Productivity
1 2 3 4		Gate 10 no longer in operation Fly ash cost estimates are based on current state - not the ammoniated ash state			
5		Revisit the stormwater control / drainage permit	(\$900K) VBS (\$80K) [REDACTED] (\$90K) [REDACTED] \$1.1 M instal. cost		
6 7 8 9		[REDACTED] to Fly Ash Hoppers (\$400K savings by late summer)		\$400K ash removal (\$60K productivity losses)	3.9 MHR CY 0.5 MHR Clean Air <u>0.4 MHR Stores</u> 5.0 MHRs total/day
			\$1.1M Installation/Capital		

PEF-POD23-023

Option Analysis

Option – 2006A

A *B*

	2006 A	Assumptions	Installation	Operating Expenses	Productivity
Operating Expenses	[Redacted]	Gate 10 no longer in operation Fly ash cost estimates are based on current state - not the ammoniated ash state			
Installation Costs	[Redacted]	Revisit the stormwater control / drainage permit	(\$1.3M) VBS (\$80K) Add two turnstiles (\$1.4M) may have to pave the turn-around area		
Security Requirements	[Redacted]	[Redacted]			
Operational Efficiency	[Redacted]			\$400K ash removal sav. (\$24K productivity)	1.0 MHR CY 0.6 MHR Clean Air 0.4 MHR Stores 2.0 MHRs/day
			\$1.4M Installation/Capital		

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