

Citizens' Advisory Commission Meeting
Pueblo Colorado
Minutes
February 24, 2016

Members in Attendance:
Irene Kornelly, Chair
Terry Hart, Vice Chair
Jeff Chostner
Doug Knappe, for Joe Schieffelin
John Norton

Members Absent:
Ken Griffin
Zak Pierce
Ross Vincent

Business

Minutes for the January 27, 2015 meeting were approved.
Retirement Recognition – Carl Ballinger

Pueblo Chemical Depot (PCD) Update Col Thomas Duncan, PCD Commander

A two week Department of Defense Inspector General audit went very well. Congressman Tipton toured the Depot, and PCD hosted a Media day.

John Norton: Are you still hiring?

Col. Duncan: Yes, our focus is on guards.

Doug Knappe, Unit Leader

Hazardous Materials and Waste Management Division

PCAPP Permitting is nearing completion on several plans. PCD hazardous waste activities included successful Explosive Destruction System treatment campaign. This part of the weapons destruction is going into partial temporary closure.

Initiating Plant Operations – An Experienced Perspective

Don Barclay, Deputy Program Executive Officer, Program Executive Office, ACWA

Tim Garrett, former Site Project Manager, Anniston, AL Chemical Disposal Facility

Jeff Brubaker, former Site Project Manager, Newport, IN Chemical Disposal Facility

Assembled Chemical Weapons Alternatives Program

These three gentlemen discussed their experience of how initiating plant operations (IPO) went at these facilities.

Key messages about past IPOs -

Don Barclay: Our commitment to the community is that we will proceed cautiously, and operate the plant safely. We will stop when we need to – even if it is something simple that we need to correct.

Tim Garrett: Caution is very important. Practice is very important. Numbers of items are not more important than safety. If you protect the worker, the community and the environment ultimately will be fine.

Jeff Brubaker: Sometimes design doesn't work. We are willing to go back to the drawing board if it fails, and determine the safest, most effective process forward.

Program Updates

Rick Holmes, Bechtel Project Manager

Gregory Mohrman, Site Project Manager

Col Thomas Duncan, PCD Commander

EDS End-of Campaign Status Update and Temporary Closure

Michael Strong, PCAPP Explosive Destruction System Site Project Manager Safety

Paul Usinowicz, PhD, PE, BCEE

Risk Reduction Testing

- Schedule Status
 - Testing Summary
 - pH Control Test
 - Brine Reduction System (BRS) Salt Water Tests 1 & 2
 - Immobilized Cell Bioreactor (ICB) pH Test Status
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Test 1B ICB pH Test

- Test Overview
 - Conduct pulse tests (2 performed) with caustic (25% NaOH) to evaluate mixing in first ICB chamber
 - Challenge ICB with strong acid (20% sulfuric acid)
 - Success measured by ability of control system to maintain pH between 6.5 and 8.5
 - **Conclusions**
 - The Pulse Test demonstrated mixing pattern that can provide control strategy for the ICBs when bioactivity occurs throughout the bed.
 - Control Strategy and automation will be worked during TDG Surrogate Testing
 - The acid simulation was unsuccessful because of
 - localized bed mixing and
 - possible short-circuiting
 - Monitoring points for control identified
-

- within the recycle line and
 - just prior to the effluent weir of the Compartment
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Test 2 BRS Salt Water Test

- **Objectives**
 - Demonstrate BRS functionality with simulated inorganic salt feed
 - Provide baseline BRS operating data with brine solution (inorganic salt only) feed prior to ICB surrogate testing
 - Gain experience operating the BRS, filter press, and sampling/analyzing filter cake and recovered water
- **Test Overview**
 - Simulant consists of mixture of sodium chloride and sodium sulfate at expected ICB effluent concentrations
 - “72 hours” of continuous operation
 - Sampling and analysis of filter cake and recovered water (distillate)

Test 1

- **Various equipment problems prevented a successful demonstration**
- **Time constraints (*Christmas Holiday) forced shutdown**

Test 2

- **Repeat of Test 1 After BRS Modifications/Repairs**
- **System Performance – Evaporator**
 - Smooth startup
 - Specific gravity developed for crystallizer feed
 - Crystallizer feed developed after 48 hours
 - Evaporator run time, including “salt washout” = 120 hours
 - Processed >520,000 gallons of salt feed plus “salt washout”
 - Distillate Quality met requirements

Test 2 BRS Salt Water Test – Test 1

- **Test 1**
 - Various equipment problems prevented a successful demonstration

- Time constraints (*Christmas Holiday) forced shutdown

Test 2

- Repeat of Test 1 After BRS Modifications/Repairs
- System Performance – Evaporator
 - Smooth startup
 - Specific gravity developed for crystallizer feed
 - Crystallizer feed developed after 48 hours
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 - Distillate Quality met requirements

Test 2 BRS Salt Water Test 2

- System Performance – Evaporator
- Smooth startup
- Specific gravity developed for crystallizer feed
 - Crystallizer feed developed after 48 hours
 - Evaporator run time, including “salt washout” = 120 hours
 - Processed >520,000 gallons of salt feed plus “salt washout”
 - Distillate Quality met requirements
- System Performance – Crystallizer
 - Crystallizer run time 60 hours
 - Developed ASV for Oberlin Filter
- Salt Cake Production – Oberlin Filter Operation
- Oberlin Filter Startup and Operation
 - Ran Oberlin Filter for 60 hours
 - Produced ~40,000 pounds of dewatered salt cake
- **Distillate Quality**

	Process / Make-up Water	Salt Water Feed Test 1	Salt Water Feed Test 2	Test 1 and Test 2 Distillate	Distillate Threshold Limit
Chloride ppm	14	4901	4669	<1	15.2
Sulfate ppm	72	5631	5463	<1	17

Test 3 TDG Surrogate

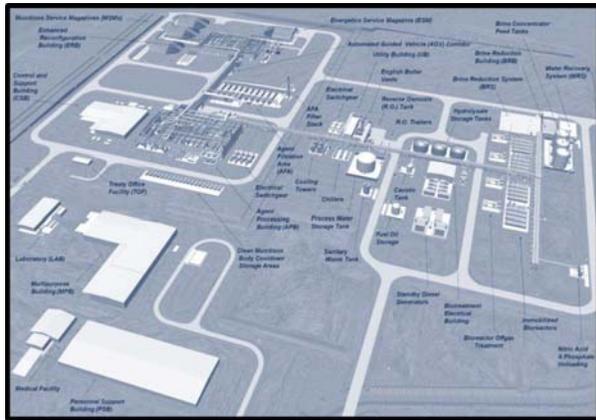
- **Objectives**
 - Test Performance of the ICBs, using simulated hydrolysate
 - TDG and salts at hydrolysate concentrations
 - Follow startup/acclimation scheme
 - Demonstrate required TDG degradation and process control
 - Monitor for potential issues
 - pH control
 - Sufficient aeration
 - Biomass accumulation
 - Demonstrate BRS performance with organics and biomass, in addition to salts
 - Transition acclimated ICB Module to hydrolysate processing

Rick Holmes, Bechtel Project Manager

Lost-workday case rate is 0.00

The current Total Recordable Injury Rate (TRIR) is 1.64, In January, the project experienced two recordables.

PCAPP Systemization – 96.8% Complete



As of January 2016
 ERB 100%
 APB 100%
 BTA 86%

System	Complete
UTILITIES	99%
HVAC	100%
FACILITIES	100%

Countdown to Ops:
 Waste Disposal Contracts
 Saltwater Test completed
 Scaffold removed in Agent Processing Building
 Production proceeding on Overpacked Pallets
 APB Roof Leak Testing

Initial Agent Operations ORR Status

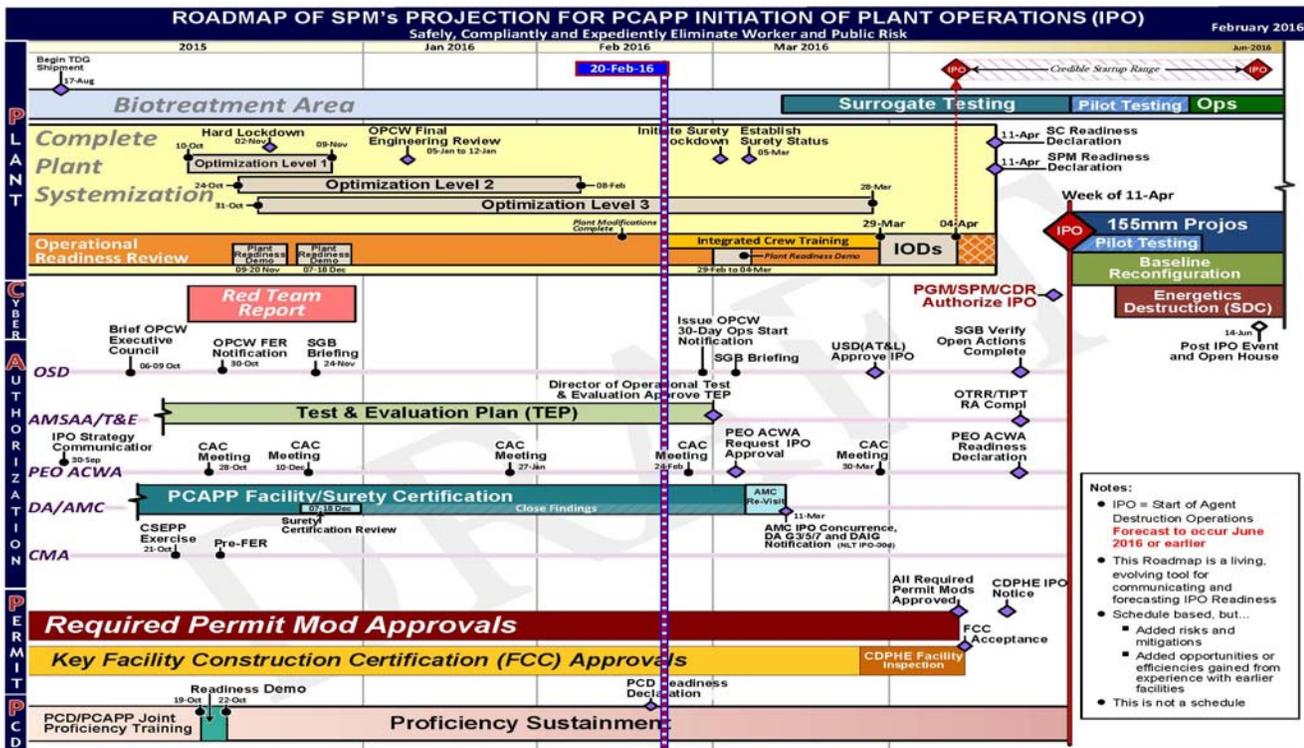
Operational Readiness Review (ORR) work will be paced by Systemization work, primarily system turnovers.

ORR Documents	Total Required	Board Reviewed	Board
Affidavits	373	370	370
Criteria Review Approach Documents	373	299	287

Data current as of 17-FEB -2016

The Citizens' Advisory Commission (CAC) and PuebloPlex toured the plant on February 16.

The Roadmap was discussed in detail.



Col Thomas Duncan, PCD Commander

Submitted the Declaration of Readiness that the site was ready to ship munitions to PCAPP in February, CMA concurred. Continue to build capacity, including getting more equipment. Just finished a response assistance exercise was held and very went well. The Army Chemical Command will come back for a revisit. The Explosive Destructive System (EDS) first campaign is going into a cold status.

Michael Strong, PCAPP Explosive Destruction System Site Project Manager Safety Explosive Destruction System: End of First Campaign

While most of the 560 munitions that went through the Explosive Destruction System (EDS) at PCAPP were in better shape because they had only been drilled for test samples, such was not the case for all. This leaking 105mm round (pictured), covered and encrusted with mustard agent, was among the last to go through the EDS because of its poor condition. Highly trained professionals from the Edgewood Chemical Biological Center, Aberdeen, MD wearing special protective suits, handled this round and others like it with great care to limit contamination as it was placed in the vessel designed specifically for the destruction of munitions just like it.

On February 11, 2016, fragments from the last four 105mm munitions were removed from the PCAPP EDS vessel, verifying a successful destruction sequence, and marking the end of the first destruction campaign. The next campaign will have a new EDS unit.

P2A EDS Schedule

Government Acceptance Test 7 – 11 Mar 16

Unit Shipped to APG (J-Field) Jun 16

P2A Set Up (J-Field) Jun 16

P2A Testing Jul – Sep 16

P2A will remain at APG until 120 days prior to scheduled start of operations date for second campaign to allow training and SOP development to occur in the most efficient manner possible.

The PCAPP EDS ‘Last Shot’ video on the PEO ACWA Facebook page has been viewed more than 1,600 times since it was first posted on Feb. 12.

John Norton: Will the CAC be notified of any rejects or leakers as they occur during operations?

Mike Strong: No, not rejects; but we could keep a running tally for your informaiton..

**Subcommittee Updates -
Permitting Working Group – Irene Kornelly
Biotreatment Utilization Working Group (BUG) John Norton**

Irene Kornelly (Permitting)

An extensive briefing was given on the Operations Permit. Next month will be discussing the Multi Pathway Health Risk Assessment, and the Pilot Test Plan as well.

John Norton (BUG)

We are looking at March for surrogate thiodiglycol (TDG) testing.

Carl Ballenger introduced Gayle Perez, Public Information Officer with the Pueblo County Sheriff and Chemical Stockpile Emergency Preparedness Program.

Closing and Adjournment

Next Subcommittee meetings are tentatively scheduled:

March 30, 2016 at 2:00pm

District Attorney's Conference Room

Tentative Date for next CAC meeting: March 30, 2016 at 6:00PM
Olde Towne Carriage House