



Billings Refinery

November 13, 2012

Dear Council Member:

The minutes from our October 9, 2012 CAC meeting are attached. The next meeting will be **TUESDAY, NOVEMBER 13, 2012** at the Phillips 66 Learning Center, our usual location. The meeting will run from 5:00 to 7:30 p.m.

Sincerely,

Ann L. Clancy, Ph.D.
Meeting Facilitator

**Meeting Location: ConocoPhillips Learning Center
415 South 24th Street**

**PHILLIPS 66 COMPANY, BILLINGS REFINERY
CITIZENS ADVISORY COUNCIL**

October 9, 2012

MEETING MINUTES

Present: Council members: Ken Ard, Steve Arveschoug, Keith Beartusk, Bob Carr, Paul Dextras, Ralph Hanser, Joshua Juarez, Shirley McDermott, Paul Miller, Linda Pettengill, John Pulasky, Jim Ronquillo, Emily Schaffer, Gladys Stahl, Dolores Terpstra, Richard Wilson, Stella Ziegler
Phillips 66 management: Colin Franks, Mark Hilbert, Randall Richert

Absent: Ann Clancy, Brittany Blood, Elizabeth Stears [not sure who else was absent]

Guests: Michelle Zahn, South Side Neighborhood Task Force

AGENDA

- Welcome/Introductions
- Pipeline 301 System Integrity
- Agriculture & Refining Presentations
 - ExxonMobil Spill: Steve Lackman, County Extension Agent
 - Producing Ag-Related Petro Products: Howard Butler, Phillips 66 Jupiter Plant
- Next Meeting: November 13

WELCOME/NEWS ITEMS

It was reported that Kathleen (Kay) Blehm passed away on September 21, 2012 after a long battle with cancer. Kay was a founding member of the CAC and was very active in the air quality movement in Yellowstone County in the 80s and early 90s when the CAC started. She was the first representative of an environmental group, the Yellowstone Valley Citizens Council (YVCC), to sit on the Council. She was a dedicated CAC member when the CAC was floundering to find its purpose and to have a voice, especially during a time of much rancor in the community about the air quality issue. She attended the first national CAC meeting held in Lake Charles when it was just the four Conoco refineries. She asked great questions of the Conoco leadership who attended including questions about women's positions in the company and environmental concerns. She attended the 10th and 20th CAC reunions and was a strong supporter of ConocoPhillips (now Phillips 66).

PIPELINE 301 SYSTEM INTEGRITY

Mark Hilbert gave a presentation on the pipeline system integrity. He began by recapping the Pipeline 101 and 201 presentations he's given in the past.

Pipeline 101 – Introductory Course

Phillips 66 Pipeline LLC

- Operates 12,000+ miles of pipelines
- Owns or operates more than 42 storage terminals

- Transports more than 2.5 million barrels per day average of raw & refined petro products

Billings Division Overview

- Has 119 employees (48 in Billings)
- Operates 2246 miles of DOT pipeline
- Has 4 pipeline systems: Seminole Pipeline (100% P66); Pioneer Pipe Line Co. (joint venture); Yellowstone Pipe Line co. (joint venture) and Glacier Pipe Line (joint venture)
- Provides transportation services for 4 regional refineries: Phillips 66, Billings; ExxonMobil, Billings; Cenex Harvest States, Billings; and Sinclair Oil, Sinclair & Casper, Wyoming
- 21 pump stations
- 186.3 MBPD products transported
- Operates 12 terminals
- 3.0 MM barrells of storage capacity
- 4 operated joint venture terminals: Sinclair Oil, Salt Lake, UT; Phillips 66/ExxonMobil, Missoula & Thompson Falls, MT; ExxonMobil & Sunoco, Moses Lake, WA

Facts about Pipelines

- Play a critical role in nation's economy & security by carrying fuel used for motor vehicles; airplanes; ships; heating & cooking; industrial & military uses; and products for plastics & chemicals
- Pipeline tariffs are set by the Federal Energy Regulatory Commission (FERC) and relate to fees charged for use of pipe line systems which are not subject to daily changes in market conditions
- Pipelines have a superior safety record compared to other modes
- A comparison of 3-year spill averages shows a 59% decrease in number of spills per 1000 miles of pipeline and a 41% decrease in volume spilled for 1000 miles of pipeline
- Pipelines transport 17% of all U.S. freight at an efficiency of only 2% of the nation's freight bill
- Pipelines are the most feasible method for moving huge volumes of petroleum
- Major pipeline equipment includes: valves, pumps, tanks
- Rights-of-Way (ROW) is a strip of land about 25 to 150 feet wide containing 1 or more pipelines which enables personnel to inspect, maintain and test pipelines for emergencies

Pipeline 201 – Next Level Course

Operations

- Pipelines use a petroleum products batching process that transports dozens of products and grades of gasoline at once time through the pipeline making it possible for pipeline operators to meet diverse energy needs

Products

- Refined petro products: gasoline, diesel, jet fuel, heating oil
- Crude oil: feedstock for refined petroleum products
- Highly volatile liquids (HVL): ethane, butane, propane; residential & industrial applications
- Natural gas: mostly methane gas for residential, industrial & power generation uses

Pipeline 301 – Advanced Level Course

Overall system integrity

Construction (Building it right)

- Planning for new capacity begins far in advance and includes many steps: selecting routes; understanding regulatory processes; design & site preparation; stringing, trenching & bending; welding coating & testing; lowering the pipeline and site restoration

Operations (Up & running/leak detection)

- Commissioning to startup
- Pipeline nominations & scheduling

- Control Center located in Bartlesville, OK: manned 24/7; uses advanced communication systems to schedule & control movement of products and to monitor for releases and remotely operate block valves to isolate sections in case of emergency
- Layers of leak detection through computerized monitoring methods: non-continuous monitoring, visual inspections, 3rd party reports (#1); continuous monitoring, equipment status, analog values & deviation alarms (#2); volumetric leak detection, real time system balance, alarms, trends, line pack (#3), and model based leak detection, predicted system performance vs. actual energy/mass balance (#4)
- Product storage terminals: can sit on product pipelines or standalone (fed from 3rd parties, refineries or imports)
- Crude storage terminals: used for extra refinery storage or marine unloading

Maintenance (Making it last)

- Routine maintenance: monthly, quarterly, semi-annual, yearly inspections; preventative maintenance including cleaning, lubrication, replacing components & vibration analysis; testing of level switches, pressure transmitters, heat exchangers, pumps, relief valves, pressure regulators, etc.
- Major maintenance: 5 and/or 10+ years or as needed: internal tank & pipeline inspections & repairs, hydro testing, major coating reconditioning, pipeline relaxation projects, line lowering & pump rebuilds
- Use of “smart tool” or “smart pig” internal inspection device

Citizen Responsibility

- Use one-call centers to locate buried utilities before digging
- 811-nationwide one-call number and www.callbeforeyoudig.org
- Contact Phillips 66 Pipeline at 1-877-267-2290 to report potential hazards on ROWs

There were a couple of questions after the presentation regarding right-of-way changes and who does the maintenance of the pipelines.

AGRICULTURE & REFINING PRESENTATIONS

ExxonMobil Spill

Steve Lackman, MSU Yellowstone County Extension Agent, reported that he was called upon by the Environmental Protection Agency to participate in its Agricultural Lands Subcommittee in response to the ExxonMobil pipeline break in the Yellowstone River that occurred on July 1, 2011. During high water, the ruptured pipeline spilled about 42,000 gallons of crude oil into the river resulting in contamination of 3,200 acres of river bottom property. As a member of the subcommittee, Steve worked together with experts from oil and environmental industries to consolidate their knowledge into a one-page “fact sheet” providing information for county public officials and people who had suffered contamination. Steve’s contribution was providing responses to questions about contaminated soils, crops and livestock. He showed photos of contaminated grass and gave an overview of his involvement with the subcommittee. He reported that ExxonMobil paid to provide hay. He noted that there were not many experts within ExxonMobil who could address the agricultural impact of the spill.

Billings Jupiter Sulphur Plant Overview

Howard Butler, Plant Manager at Billings Jupiter Sulphur Plant, provided an overview of the staff, history, products, environmental issues, 2012 turnaround and the plant’s connection with agriculture. In terms of management staffing, Jupiter has a plant manager, assistant plant manager, maintenance manager and a lead operator. There are also 12 operators, two maintenance technicians and an office manager.

The Jupiter plant was built in 1989 and started up in 1990 to provide the Phillips 66 refinery with sulfur processing capacity. It processes 100% of the refiner's acid gas and SWS gas streams. It is owned 50/50 between Phillips 66 and Tessengerlo Kerley, Inc. (TKI). TKI is the operator and provides management, marketing of products and tech support.

Jupiter products include:

- Ammonium thiosulfate (ATS): sold as liquid fertilizer
- Ammonium bisulfite (ABS): sold as food grade O2 scavenger and mining cyanide scavenger, a growing market
- Ammonium sulfide (ASD): sold to TKI to make APS
- Molten sulfur: 60% sold to make acid for mining and 40% sold to other TKI plants for fertilizer

The Jupiter units began with ATS and concentrate in its first phase in 1990. In 1994, a second phase resulted in the sulfur recovery unit. In 1999, a new B-101 Claus Boiler was added and in 2002 a new D'Gaass sulfur unit which removes H₂S from sulfur. The plant has a rail rack with two bays that services 8 cars a day and a truck rack with one bay that serves 15 trucks a day.

Jupiter Sulphur provides benefits for Phillips 66 including reliable operation, low emissions, novel tail gas technology, TKI sulfur expertise, low operating costs, and shared recovery. TKI benefits include lower cost products, shared plant costs, shared sulfur revenue and shared recovery.

Jupiter makes safety its #1 priority and has a strong safety record:

- 19 years since last Lost Work Day injury
- 3.8 years since last recordable injury
- Process safety management system
- Mechanical integrity program
- Goal of attaining OSHA VPP status
- Twice monthly safety meetings
- Pure Safety
- Sharing ideas and initiatives with the refinery and other Jupiter/TKI plants

Environmental stewardship is another key priority of Jupiter. Like the refinery, Jupiter engaged in a total plant turnaround in 2012 resulting in the following:

- Largest maintenance activity ever undertaken (50 contractors on site)
- Completed safely with over 200 audits, two first aides
- Completed without any environmental reportable events
- Leak-free startup
- Completed on schedule, staggered over 40 days
- Completed inspection activities
- Changed out SRU catalyst
- Re-tubed B-102 boiler & rebuilt cooling tower
- Implemented many small improvement projects

Jupiter's Link with Agriculture

Jupiter/TKI is a fertilizer and crop protection company in North America with a storage network of more than 60 terminals. The plant's sulfur-based liquid fertilizers and soil amendments are

used on a variety of crops and soils to boost net return per acre. Howard reported that sulfur is relatively new to the fertilizer market. It used to be provided "naturally" through the atmosphere. For example, transportation fuels and many coal fired power plants used to emit large quantities of sulfur into the atmosphere which was then deposited in the form of mild acid rain. Over the last 20 years, almost all of this sulfur has been removed from transportation fuels and coal fire plants have also been reducing sulfur emissions. Growers now find it necessary to supplement their fields with sulfur fertilizers like Thio-Sul (ammonium thiosulfate). Sulfur improves soil structure, increases water infiltration and helps break down crop residue. Thio-Sul is used as an additive to UAN solutions to help high yielding crops get the right amount of nitrogen and sulfur on which they depend.

REFINERY UPDATE

Julian Stoll provided a refinery update:

Safety: There's been a good safety record since the turnaround.

Environmental: Two environmental exceedences have occurred.

Operations: The plant is in the process of hiring operators and mechanics. The refinery is profitable again after the turnaround and returning to normal.

Community outreach: The refinery hosted a military job fair in Billings. There were some mistakes in the literature that was handed out for the Neighborhood Eat & Meet. The notice was sent out a day late, after the Eat & Meet took place.

TRANSPORTAION UPDATE

Mark Hilbert provided a transportation update:

Safety: One incident resulted in a hand injury for a puncture wound last month. Unfortunately the individual was not wearing the appropriate safety gloves.

Environmental: There was a 1-3 gallon spill.

Community outreach: There have been about 2300 on-call notifications. There was a worst case scenario drill in Spokane that involved over 200 company responders. The drill was very successful and included support from Houston.

NEXT MEETING AGENDA: NOVEMBER 13

The following agenda was confirmed for the October 9 CAC meeting:

- Welcome & Introductions
- Community Emergency Response Drill
- Phillips 66 Health, Safety & Environmental Commitment
- Neighborhood Eat & Meet Survey Results
- Community Updates
- Refinery & Transportation Updates
- Next Meeting Agenda: December 11