Presentation to Alamo Improvement Association, June 3 & 6, 2015

Kinder Morgan Facilities in Bay Area Counties
Why are we here?

- To raise awareness of:
  - Our pipelines and facilities in your area
  - The products we ship and any potential emergency situations
- To create a forum to exchange information
What are the boundaries of the designated HCAs within Contra Costa County? How are these determined? How does the operator make changes to these over time? How can the community, emergency response personnel, and others submit information to be considered for HCA adjustments?
At this time all of LS-16 is considered HCA.
The HCA analysis process identifies pipeline segments based on direct impact, indirect impact, or potential transport to an HCA with the use of Subject Matter Expert input and National Pipeline Mapping System information.
KM performs this HCA Analysis to determine these boundaries on an annual basis.
Kinder Morgan is aware of all construction activity and development projects within 500 feet of the pipeline. KM performs HCA review annually to determine if new construction or real estate developments affect the HCA status.
**Sign Placement**

- Where are signs placed and how do they face in relation to the pipeline location itself?
  - Line markers over each buried pipeline at each public road crossing, each railroad crossing, and in sufficient number along the remainder of each buried line so that its location is accurately known (line of sight). Consider placing additional line markers in areas where third party damage to the pipe is possible.
  - Oriented perpendicular to pipeline
In places, the hazardous liquid line(s) is in close proximity to natural gas line(s) and power poles (also water and sewer lines). How close are these to one another? Describe safety and coordination measures taken to avoid problems.
## Coordination with other Utilities

<table>
<thead>
<tr>
<th>Third Party Facility</th>
<th>Horizontal Distance from Company Facilities</th>
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</thead>
<tbody>
<tr>
<td>Buried pipelines</td>
<td>At least 10 feet (3 m)</td>
</tr>
<tr>
<td>Buried telephone cable</td>
<td>At least 10 feet (3 m)</td>
</tr>
<tr>
<td>Overhead telephone cable</td>
<td>At least 25 feet (7.6 m)</td>
</tr>
<tr>
<td>Buried electric cables 440 VAC or less</td>
<td>At least 10 feet (3 m)</td>
</tr>
<tr>
<td>Buried electric cables 440 VAC to 37.5 KVAC</td>
<td>At least 25 feet (7.6 m)</td>
</tr>
<tr>
<td>Overhead electric lines 37.5 KVAC or less</td>
<td>At least 25 feet (7.6 m)</td>
</tr>
<tr>
<td>Buried or overhead electric lines – facilities over 37.5 KV, AC or DC electric cable</td>
<td>Only by agreement between the utility and the Company’s Regional Technical Manager or designee</td>
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</tbody>
</table>
### Coordination with other Utilities

<table>
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<tr>
<th>Third Party Facility</th>
<th>Vertical Clearance from Company Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>New construction</td>
<td>When installing underground utilities, the last line should be placed beneath all existing lines unless it is impossible or unreasonable to do so.</td>
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</tbody>
</table>
| Buried steel pipelines                   | At least a 12-inch (305 mm) vertical earth separation from a Company pipeline less than 12-inches (305 mm) in diameter  
At least a 24-inch (610 mm) vertical earth separation from a Company pipeline 12-inches (305 mm) or greater in diameter. |
| Buried non-steel pipelines               | At least a 12-inch (305 mm) vertical earth separation from a Company pipeline less than 12-inches (305 mm) in diameter  
At least a 24-inch (610 mm) vertical earth separation from a Company pipeline 12-inches (305 mm) or greater in diameter.  
Install flagging tape above the Company pipeline, approximately 3 feet (0.9 m) on each side and directly over the cable or utility line for a distance of at least 15 feet (4.6 m). |
| Buried telephone and electric cables – 440 VAC or less | At least a 12-inch (305 mm) vertical earth separation from a Company pipeline less than 12-inches (305 mm) in diameter.  
At least a 24-inch (610 mm) vertical earth separation from a Company pipeline 12-inches (305 mm) or greater in diameter.  
The cable shall have a nonconductive outer sheath extending at least ten feet (3 m) each direction from the Company pipeline.  
Install flagging tape above the Company pipeline, approximately 3 feet (0.9 m) on each side and directly over the cable or utility line for a distance of at least 15 feet (4.6 m). |
| Fiber optic cables                       | Efforts should be made to install all fiber optic cable crossings at least 3 feet (0.9 m) below Company pipelines.  
Installing a concrete barrier is recommended but may not be practical when the cable is a direct bore. In that case, the clearance and markings become more critical. |
| Buried electric cables 440 VAC to 37.5 KVAC | At least a 12-inch (305 mm) vertical earth separation from a Company pipeline less than 12-inches (305 mm) in diameter.  
At least a 24-inch (610 mm) vertical earth separation from a Company pipeline 12-inches (305 mm) or greater in diameter.  
The cable shall have a nonconductive outer sheath extending at least 10 feet (3 m) each direction from the Company pipeline.  
Install flagging tape above the Company pipeline, approximately 3 feet (0.9 m) on each side and directly over the cable or utility line for a distance of at least 15 feet (4.6 m). |
| Facilities over 37.5 KV                   | Vertical separation of an electric cable or line operating at more than 37.5 Kilovolts A.C. or D.C. will be established by agreement between the utility involved and the Company Regional Technical Manager or designee Department. |
Describe the means to maintain a safe pipeline throughout its life (some have asked if there is a specific useful life of a pipeline, and how long that is). What is the latest technology available for helping with this process? How is it used on the county pipeline(s)?
High Resolution Magnetic Flux Leakage and High Resolution Deformation tools are used to survey these pipelines for corrosion defects and dents. The results of these surveys are used to make repairs in order to maintain a safe pipeline throughout its life. Follow PHMSA regulations for inspection frequency.
This is a major concern voiced by a number of community residents. Describe how these ground movement hazards are addressed in the integrity management plan, and what additional safety measures are taken to prepare for earth movement.
Earthquakes and Ground Movement

- Seismic Areas, Unstable Slopes, Washout Areas, and Subsidence Areas are all identified by our Subject Matter Experts.
- These areas get an elevated risk score in our ranking program.
- Additional safety measures are discussed and taken during our preventive and mitigative measure meetings. Examples include monitoring, mitigating based on nature of condition, patrols, drills with emergency responders, barriers, recontouring, etc...
What is your agency/operator role in inspecting and/or regulating the hazardous liquid pipelines that run through our community? Please be prepared to discuss the process for determining pipeline safety and compliance, and the steps to achieve compliance if there are problems. [For the Alamo meeting, the focus will be on the Iron Horse Corridor.]
Inspections

- Participating in State/Provincial One Call Programs
- Receiving Notices from One-Call Systems
- Marking Underground Structures
- Surveillance, Awareness and Reporting
- Investigating Third Party Construction Activity – KM Not Notified
- Excavating Pressurized Lines and Excavating Near Other Utilities
- Engineering Assessment (SM)
Please provide specific information about the results of these inspections in recent years. What types of concerns are there (e.g., encroachment, corrosion, previous damage, etc.)? What specific anomalies exist? What are the plans for repairing these anomalies?
Third party damage is always a primary concern
Specific tools (smart pigs) search for deformations, dents, and metal loss.
Most recent pig run (Dec 2014) no immediate digs required. All digs permitted through County
No digs necessary in Alamo
Will not know exact nature of anomaly until we expose line.
Right of Way

- What is the process for inspection and maintenance of the ROW?
  - Line Riders daily patrol sections of ROW and respond to One Call/811 tickets
  - Work closely with excavators to plan and manage construction activity
  - Utilize automated system that tracks, documents, and maintains all activity, communication, documentation, and pictures associated with all activity to 50 feet from PL
  - ROW Inspectors present during all activity within 10 feet of the pipeline
  - Aerial patrol inspections
In the Alamo area, there have been very specific concerns raised about areas where the pipeline is suspended over seasonal creek beds (exposed crossing at La Serena-pipe within casing, span inspection annually) on the Iron Horse Corridor. Please describe (at both community meetings) how the safety of these aboveground crossings is determined. What are the requirements for these types of crossings? How would a pipeline installed today look at these crossings? Would it be different – please describe the difference?
Exposed crossing at La Serena-pipe within casing, span inspection annually

- Bank soil stability, length of span, depth of creek, average and maximum rainfall, and creek down gradient determine span crossing

- Pipe is supported at both ends and span distance is short. Pipe not exposed to elements inside casing.

- Permit conditions, environmental concerns, cost practicality would determine configuration if installed today.
Please describe in detail how valves are inspected and tested to maintain their functionality over time. There are some valves existing on this line that are apparently manual and have been in existence for some time. Please describe the current valve installation requirements and practices on new lines, and how they are different (if at all) from what exists today. Please describe the location of the automatic valves along the pipeline and how the placement of these is determined.
Valve Operation

- Per 49 CFR 195 all mainline block valves are inspected, maintained (lubricated and exercised), and operated semi-annually per manufacturers specifications. Only Operator Qualified employees can operate any valve.

- Downstream of Sunol grade in Fremont. Placement was determined by topography and pipeline hydraulics.
There are grade differentials along the pipeline that bring community concerns about drain-down of the line in the event of a spill. Please describe the current valve type and placement in the county – what types of valves are where?
Valve Spacing

- Mix of manually operated and motor operated valves (MOV’s)
- LS16-Gate at Hillgrade Ave, Check and gate at Sunol (upstream Sunol grade), MOV at Castro St (downstream Sunol grade)
- LS 9-Check at Bailey, Gate at Kirker (high point), Gate at Somerville Rd, Gate at Lone Tree Way, Gate at Brentwood
- LS 90-Gate at McAvoy, Gate at East 14th Street, Gate at Willow Ave, Gate at Brentwood, Gate at Byron Hwy
- LS 130-MOV Walnut Creek west
- LS 8-Check at San Pablo, Check at Pinole, Block at Christie, Block at Alhambra
- LS 37 –MOV Shell, Block at Selby, MOV PH 66, MOV at Giant Road
How is placement determined to minimize the impacts of spills? What is the process and timing of closure for the valves in place today? Operators are trained to respond to abnormal operating conditions. MOV’s activated immediately through SCADA. Employees must respond to valve site to close hand valves.
Spill Response

- Please talk more about spill response planning, including the worst-case discharge timing assumptions. How will response be handled for both a localized release by accident and a major incident caused by earthquakes that may result in more than one breach?
KM Integrated Contingency Plan contains comprehensive response strategies and discharge calculations. Discharge scenarios planned using criteria established by USCG, CFW OSPR, US EPA

Response times established per Federal and State Regulations. All incidents responded to immediately upon discovery.

Retain (with active contract) state certified Oil Spill Response Organization (OSRO). Spill responses conducted using Incident Command System (ICS). Drill frequently with OSRO and Federal and State agency representatives.
Ongoing Communication

- Describe the means for the community to be regularly informed of any activity on the pipeline, whether that involves routine ROW inspections, integrity digs, major repairs or on---or---off site inspections; and the means for the community to inform you if they have specific concerns. Where can the community access information on an ongoing basis?
Public Awareness Program
http://www.kindermorgan.com/pages/public_awareness
KM applies for permits from Contra Costa County to investigate anomalies, repair pipeline, and perform other line work as necessary.
KM Pipeline Markers contain local phone number to 24 hour operated local control room (Concord) and centralized control room in Orange, California
Ongoing Communication

- KM local management 100% responsive to individual queries and concerns
- Local emergency responders familiar with KM and know contact procedures.
- Every year all residents and businesses within 660 feet of the pipeline receive Public Awareness mailer with pipeline information and contact numbers.