Air Pollutant Watch List Boundary Supplemental Documentation

Benzene in Galena Park

Draft Developed July 2011

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Air Pollutant Watch List (APWL) Boundary Reevaluation

County: Harris City: Houston TCEQ Region: 12 APWL Site Number: APWL 1206 Pollutant: Benzene

Background

Benzene is a clear liquid that readily evaporates into the air and is a widely used industrial chemical. It is used to make glues, lubricants, and certain drugs, and it is also contained in crude oil and gasoline. Several agencies, such as the Texas Commission on Environmental Quality (TCEQ), the U.S. Environmental Protection Agency, the National Toxicology Program, and the International Agency for Research on Cancer, have designated benzene as a human carcinogen.

Galena Park is located in a heavily industrialized area of Harris County along the Houston Ship Channel. Some of the county's largest benzene emitters are located in Galena Park and neighboring Pasadena. The TCEQ has monitored for benzene at the Galena Park air monitoring site since October 21, 1997.

The TCEQ's Toxicology Division (TD) establishes air monitoring comparison values (AMCVs) for many air contaminants, including benzene, for the evaluation of ambient air monitoring data. AMCVs are chemical-specific air concentrations set by the TD to protect human health and welfare. The TD established a long-term health-based AMCV of 1.4 parts per billion by volume (ppb_v) for benzene¹. No adverse long-term health effects are expected if the annual average benzene concentration for an area remains below 1.4 ppb_v.

The annual average benzene concentration was 1.5 ppb_v in the years 1998 and 1999 at the Galena Park monitor. This average benzene concentration exceeded the long-term health-based AMCV and indicated a potential concern to human health and welfare. In response, the TCEQ listed Galena Park on the APWL in 2000.

Since the TCEQ listed Galena Park on the APWL in 2000, the annual average benzene concentration exceeded 1.4 ppb_v in 2001, equaled 1.4 in 2002, and exceeded 1.4 ppb_v in

¹ The TCEQ has also established a short-term health-based AMCV of 180 ppb_v for benzene. The Work Group obtained all of the data used in this evaluation from 24-hour canister samplers. It is not appropriate to compare 24-hour canister samples to the short-term AMVC, as the short-term AMCV is based on a one-hour exposure scenario. Therefore, all of the discussion in this boundary evaluation relates to the long-term health-based AMCV of 1.4 ppb_v.

2003 through 2007. The annual average benzene concentration was below 1.4 ppb_v in 2008 and 2009. This reduction is likely the result of significant efforts by the TCEQ and industries in Galena Park. In addition to the Galena Park ambient air monitor, the TCEQ installed the Pasadena North monitor on July 1, 2008. The 2009 average benzene concentration at the Pasadena North air monitoring site was 1.4 ppb_v.

The TCEQ continues to encourage emission reductions in the Galena Park and Pasadena North area. The TCEQ has established a Work Group of TCEQ staff to reevaluate the Galena Park APWL boundary. The Work Group identified significant benzene sources located outside of the Galena Park APWL boundary that have the potential to affect the annual average benzene concentrations at the Galena Park and Pasadena North air monitoring sites. The Work Group recommends expanding the Galena Park boundary to include additional sources of benzene in order to ensure continued annual average benzene levels below the AMCV at the Galena Park monitor and to lower ambient benzene levels at the Pasadena North monitor. The TCEQ will use the APWL as a means to reduce emissions by focusing enforcement, permitting, pollution prevention, and monitoring resources and heightening awareness for interested parties in Galena Park and Pasadena.

Additionally, TCEQ staff identified a discrepancy between the existing Galena Park APWL map and the map's description contained in its narrative. The Work Group proposes to reconcile the discrepancy during this boundary reevaluation.

Evaluation

Ambient Air Monitoring Data

The TCEQ conducts routine and frequent evaluations of ambient air monitoring data using AMCVs. The TD established a long-term health-based AMCV of 1.4 ppb_v. No adverse long-term health effects would be expected if ambient air concentrations remain below the AMCV.

The TCEQ listed Galena Park on the APWL in 2000 as a result of elevated annual average benzene concentrations above the long-term health-based AMCV of 1.4 ppbv at the Galena Park monitoring site. The Galena Park monitor is a 24-hour canister located at 304 Stewart Street. In addition, the TCEQ evaluates ambient air monitoring data collected from the 24-hour canister at the Pasadena North monitoring site, located south of the Houston Ship Channel at 702 Light Company Service Road. Figure 1, *Galena Park Monitor and Pasadena North Monitor*, provides a map of Galena Park, the Galena Park monitor (number 482010057), and the Pasadena North monitor (482011049). The monitoring sites in Figure 1 are shown as colored pie charts. The type of monitoring conducted at each site is represented by the different colors of the pie chart. The color orange, for example, represents monitoring for volatile organic compounds and air toxics are monitored at the Galena Park, Clinton Drive, Pasadena North and Manchester/Central monitors. Specific, detailed information

about these monitors and other nearby monitors can be found using the GeoTAM Viewer on the TCEQ Web site at <u>http://gis3.tceq.state.tx.us/geotam/index.html</u>.



Figure 1: Galena Park Monitor and Pasadena North Monitor

Canisters provide 24-hour average concentrations every sixth day. The TCEQ uses the 24-hour average concentrations to calculate the annual average benzene concentration for each calendar year. The Galena Park and Pasadena North canister data demonstrates that the annual average benzene concentrations have equaled or exceeded 1.4 ppb_v. Figure 2, *Galena Park Annual Average Benzene Concentrations*, demonstrates that the Galena Park annual average benzene concentrations exceeded the long-term AMCV of 1.4 ppb_v in eight of the years that the monitor was operational, equaled the AMCV in one year, and was below the AMCV in three of the 12 years. Table 1, *Annual Average Benzene Concentrations*, specifies the annual average benzene concentrations for each full calendar year that the two monitors collected data.



Figure 2: Galena Park Annual Average Benzene Concentrations

Table 1:	Annual	Average	Benzene	Concentrations
TUDIC II	Annaan	Average	DCIIZCIIC	concentrations

Monitor	Year	Annual Average Benzene Concentration (ppb _v)
Galena Park	1998	1.5
Galena Park	1999	1.5
Galena Park	2000	1.2
Galena Park	2001	1.7
Galena Park	2002	1.4
Galena Park	2003	1.7
Galena Park	2004	1.6
Galena Park	2005	2.0
Galena Park	2006	1.6
Galena Park	2007	1.7
Galena Park	2008	1.3
Galena Park	2009	0.82
Pasadena North	2009	1.4

Trend Analysis

The 2008 Galena Park annual average benzene concentration was 1.3 ppb_v and was below the long-term AMCV for the first time in several years. This average concentration was a reduction of approximately 24 percent from the 2007 average concentration of 1.7 ppb_v and approximately 35 percent lower than the highest annual average concentration of 2.0 in 2005. The annual average benzene concentration further decreased in 2009 to 0.82 ppb_v, an approximate 37 percent reduction from the 2008 average concentration and approximately 59 percent lower than the 2005 average concentration.

Galena Park's 2008 and 2009 average benzene concentrations appear to suggest a downward trend that is likely the result of significant efforts by the TCEQ and industries in the Galena Park area to reduce volatile organic compound emissions, including benzene. The TCEQ plans to consider the trends of the Galena Park monitor in conjunction with the Pasadena North monitoring data once available. The first complete year of Pasadena North monitoring data was 2009, in which the annual average benzene concentration was 1.4 ppb_v.

Health Effects Review of 2009 Ambient Air Network Monitoring Data in Region 12, Houston

The TD evaluated the 2009 ambient air network monitoring data, the findings of which are included in the Region 12 health effects review memo dated March 9, 2011. This memo and previous health effects reviews for Region 12 are located on the TCEQ's Web site at <u>http://www.tceq.texas.gov/toxicology/regmemo/AirMain.html</u>. The TD reported that the annual average benzene concentration for the Galena Park site in 2009 was 0.82 ppb_{v} . The 2009 average concentration was below the TCEQ's long-term AMCV of 1.4 ppbv for the second time in several years. The TD recommended a continued effort to control and/or reduce benzene emissions such that the long-term AMCV will continue to be met at this site.

Source Determination

Canister Data Analysis

The Work Group conducted an analysis of the Galena Park and Pasadena North canister data. Canisters provide 24-hour average concentrations every sixth day. Figure 3, *Mean Benzene Concentrations by Wind Direction*, depicts the mean benzene concentrations by wind direction at the Galena Park and Pasadena North monitors for the time period from January 2009 to September 2010. The jagged lines around each monitor represent the geometric mean benzene concentration for each of the 360 degrees surrounding the monitor. The distance from the origin (the monitor) to any point on the jagged line is proportional to the benzene concentration arriving at the monitor from that direction. For example, the jagged line around the Galena Park monitor is furthest from the origin to the right, or east, and is a considerable distance from the origin relative to many other points along the jagged line. This means that,

during the data collection period, winds arriving to the monitor from the east tended to have, on average, higher benzene concentrations than did winds from other directions. Some of the highest mean benzene concentrations at the Galena Park monitor occurred during east and southeast winds. At Pasadena North, some of the highest mean benzene concentrations occurred during north-northeast and northeast winds. The benzene sources located upwind of the two monitors that are likely to contribute to the monitors' highest mean concentrations are Pasadena Refining System, KM Liquids Terminals Pasadena Terminal, KM Liquids Terminals Galena Park Terminal, Targa Downstream Galena Park Terminal, Chevron USA Galena Park Marketing Terminal, and Magellan Terminals Holdings Galena Park Terminal.



Figure 3: Mean Benzene Concentrations by Wind Direction

Conclusions of Ambient Air Monitoring Data Analysis

The KM Liquids Terminals Galena Park Terminal is currently located within the Galena Park APWL boundary; however, several of the sources that are likely contributing to the highest concentrations at the monitors are located outside of the Galena Park APWL boundary. For example, the portion of Pasadena Refining System that contains its benzene sources (depicted as solid circles in Figure 3) is located outside of the current Galena Park APWL boundary. Similarly, the KM Liquids Terminals Pasadena Terminal is located outside of the Galena Park boundary, to the east of Pasadena Refining System. Additionally, Targa Downstream Galena Park Terminal, Chevron USA Galena Park Marketing Terminal, and Magellan Terminals Holdings Galena Park Terminal are benzene sources located east of the Galena Park APWL boundary, on the north side of the Houston Ship Channel. The Work Group determined that the boundary should be expanded to include Pasadena Refining System, KM Liquids Terminals Pasadena Terminal, Targa Downstream Galena Park Terminal, Chevron USA Galena Park Marketing Terminal, and Magellan Terminals Holdings Galena Park Terminal because the emissions from these facilities have the potential to impact the benzene concentrations at the Pasadena North and Galena Park monitors.

Supplemental Data

Compliance History

The TCEQ rates the compliance history of every owner or operator that is regulated under the Texas Clean Air Act and other environmental laws. A compliance history is based on many factors, both positive and negative, relating to the entity's environmental performance at a site over the past five years. The TCEQ develops a numerical rating. A zero is the best rating, and the score increases with poorer compliance. The TCEQ classifies an entity as having a POOR, AVERAGE, or HIGH compliance history based on the numerical rating. An entity with a compliance history rating below 0.10 is classified as a HIGH performer, and the entity is considered to comply with environmental regulations extremely well. An entity with a rating of 0.10 to 45.00 is classified as AVERAGE and is considered to generally comply with environmental regulations. An entity with a rating of 45.01 or greater is classified as POOR and fails to comply with a significant portion of the relevant environmental regulations. If the TCEO has no information on which to base a rating, the TCEQ assigns a rating of 3.01 and a classification of average by default (ABD). Compliance history ratings are assigned to regulated entities (the site that the TCEQ regulates) and customers (the individual or organization responsible for one or more regulated entities). For customers that are responsible for more than one regulated entity, the compliance history ratings for the regulated entity and the customer may be different for a particular site. More information regarding compliance history is located on the TCEQ Web site at http://www.tceq.texas.gov/compliance/enforcement/history/about.html.

Table 2, *Compliance History Summary*, illustrates the compliance history ratings and classifications for the Galena Park and Pasadena North entities. The TCEQ established the compliance history ratings and classifications on October 10, 2010, for all companies listed in Table 2, except for Valero Refining Houston Refinery, in which the TCEQ determined the compliance history on May 25, 2011 (the Work Group provided the most current data on Valero Refining Houston Refinery because the October 10, 2010, data was unavailable during this boundary evaluation).

Regulated Entity (RN) Name	RN Number	RN Rating	RN Class.	Customer (CN) Name	CN Number	CN Rating	CN Class.
Pasadena Refining System	RN100716661	6.15	AVERAGE	Pasadena Refining System, Inc.	CN603137605	4.47	AVERAGE
KM Liquids Terminals Pasadena Terminal	RN100224815	7.97	AVERAGE	KM Liquids Terminals, LLC	CN603254707	2.92	AVERAGE
Agrifos Fertilizer Pasadena	RN101621944	6.69	AVERAGE	Agrifos Fertilizer, Inc.	CN602416588	6.69	AVERAGE
Air Products Pasadena Plant	RN100221324	0.18	AVERAGE	Air Products Incorporated	CN601658347	1.55	AVERAGE
Sekisui Specialty Chemicals America Pasadena Plant	RN103012183	5.89	AVERAGE	Celanese, Ltd.	CN600130850	1.74	AVERAGE
Magellan Terminals Holdings Galena Park Terminal	RN102180486	3.47	AVERAGE	Magellan Terminals Holdings, LP	CN600134639	2.06	AVERAGE
Chevron USA Galena Park Marketing Terminal	RN100706811	0.25	AVERAGE	Chevron USA, Inc.	CN600132484	3.01	AVERAGE
Targa Down- stream Galena Park Terminal	RN100214212	3.07	AVERAGE	Targa Downstream, LP	CN603592940	5.68	AVERAGE
Rig Solutions National Oilwell Varco Galena Park Facility	RN102309150	0	HIGH	National Oilwell Varco, LP	CN602962334	2.92	AVERAGE

 Table 2: Compliance History Summary

Regulated Entity	RN Number	RN	RN Class	Customer	CN Number	CN	CN Class
(RN) Name	Kiv ivuilibei	Rating	INIV Class.	(CN) Name	Civ ivuilibei	Rating	CIV Class.
Gulf Coast Waste Disposal Authority Washburn Tunnel Facility	RN100219500	2.56	AVERAGE	Gulf Coast Waste Disposal Authority	CN600126163	1.38	AVERAGE
Shell Pipeline Company LCR Compres- sor and Dehydra- tion Facility	RN104860002	3.01	ABD	Shell Pipeline Company, LP	CN600123996	3.32	AVERAGE
Quala Systems Appelt Facility	RN100894773	0	High	Quala Systems, Inc.	CN600286827	5.6	AVERAGE
Kinder Morgan Arrow Terminals Galena Park Facility	RN100870237	3.01	ABD	Kinder Morgan Arrow Terminals, LP	CN602767881	3.01	AVERAGE
Texmark Chemicals	RN100238740	5.98	AVERAGE	Texmark Chemicals, Inc.	CN600132864	5.98	AVERAGE
Enterprise Crude Pipeline Galena Park Terminal	RN101921781	3.01	ABD	Enterprise Crude Pipeline, LLC	CN603272592	2.86	AVERAGE
Motiva Enter- prises Pasadena Marketing Terminal	RN100211259	0	HIGH	Motiva Enterprises, LLC	CN600124051	2.78	AVERAGE
Vopak Terminal Galena Park	RN102753670	16.27	AVERAGE	Vopak Terminal Galena Park, Inc.	CN600285969	9.06	AVERAGE
Valero Refining Houston Refinery	RN100219310	43.87	AVERAGE	Valero Refining- Texas, LP	CN600127468	11.02	AVERAGE
Houston Refining	RN100218130	16.76	AVERAGE	Houston Refining, LP	CN601313083	16.76	AVERAGE

Regulated Entity (RN) Name	RN Number	RN Rating	RN Class.	Customer (CN) Name	CN Number	CN Rating	CN Class.
KM Liquids Terminals Galena Park Terminal	RN100237452	2.2	AVERAGE	KM Liquids Terminals, LP	CN602717092	2.05	AVERAGE
Channel Energy Center	RN100213107	4.81	AVERAGE	Channel Energy Center, LLC	CN601549132	4.81	AVERAGE
North Texas Cement Company	RN102415353	0	HIGH	Ash Grove Texas, LP	CN602540452	0	HIGH
Dorsett Brothers Concrete Supply Plant 15B	RN104556691	3.01	ABD	Dorsett Brothers Concrete Supply, Inc.	CN600240196	2.12	AVERAGE
AES Deep- water Cogenera- tion Plant	RN100216837	0.39	AVERAGE	AES Deepwater, Inc.	CN600128847	3.78	AVERAGE
United States Gypsum	RN100212281	1.48	AVERAGE	United States Gypsum Company	CN600124218	4.06	AVERAGE

Emissions Inventory and Toxics Release Inventory

Title 30 Texas Administrative Code §101.10, Emissions Inventory Requirements, specifies that owners or operators of certain stationary sources are required to submit annual emissions inventories to the TCEQ that specify the company's actual air emissions over the previous reporting period. The Work Group used annual benzene emissions information to help identify which stationary sources emit benzene. Many sources in the Galena Park and Pasadena North area emit benzene, as demonstrated by Table 3, *Tons of Benzene Emitted per Year, as Reported by Owners or Operators.* The emissions information in Table 3 relates solely to benzene emissions that are authorized under an air permit. Many of the companies listed in Table 3 also reported additional benzene emissions for maintenance, startup, and shutdown activities.

Regulated Entity	2006	2007	2008	2009	2010 ²
Pasadena Refining System	8.7900	9.2139	5.4114	4.3472	5.3583
KM Liquids Terminals Pasadena Terminal	4.9105	6.0604	3.8184	1.4807	0.6106
Agrifos Fertilizer Pasadena	—	—	—	—	**
Air Products Pasadena Plant	—	—	—	—	**
Sekisui Specialty Chemicals America Pasadena Plant	—	—	—	—	**
Magellan Terminals Holdings Galena Park Terminal	0.7354	0.6887	3.6155	5.9040	7.4030
Chevron USA Galena Park Marketing Terminal	0.9609	0.9991	0.4839	0.4719	**
Targa Downstream Galena Park Terminal	0.2635	0.0808	0.1728	0.4830	0.6350
Rig Solutions National Oilwell Varco Galena Park Facility	0.0136	_	_	0.0172	**
Gulf Coast Waste Disposal Authority Washburn Tunnel Facility	4.1004	0.5301	0.1140	0.0615	**
Shell Pipeline Company LCR Compressor and Dehydration Facility	—	—	—	—	**
Quala Systems Appelt Facility	—	—	—	—	**
Kinder Morgan Arrow Terminals Galena Park Facility	—	—	—	—	**
Texmark Chemicals	0.0005	0.0017	0.0013	0.0013	**
Enterprise Crude Pipeline Galena Park Terminal	1.1060	0.2545	0.1857	0.0554	**
Motiva Enterprises Pasadena Marketing Terminal	0.1243	0.1306	0.1505	0.1997	**
Vopak Terminal Galena Park	—	_		—	**
Valero Refining Houston Refinery	6.5621	5.0865	1.9077	1.5264	**
Houston Refining	44.8745	38.8629	16.3723	5.0754	**
KM Liquids Terminals Galena Park Terminal	50.7555	9.7805	11.2627	8.2903	5.1094
Channel Energy Center	—	—	0.0096	0.0086	**
North Texas Cement Company	—	—	—	—	**
Dorsett Brothers Concrete Supply Plant 15B	—	-	—	—	**
AES Deepwater Cogeneration Plant	—	-	—	—	**
United States Gypsum	0.1918	0.1810	0.1282	0.0778	**

Table 3: Tons of Benzene Emitted per Year, as Reported by Owners or Operators

In addition to the Emissions Inventory data, the Work Group used the Toxics Release Inventory (TRI) data to help identify which sources emit benzene. Certain entities are required to submit TRI reports. The TRI is required by the Emergency Planning and Community Right-to-Know Act, whose primary purpose is to inform citizens of toxic chemical releases in their areas. The TRI data includes releases of air toxics, including benzene. Table 4, *Pounds of Benzene Reported in the TRI*, lists the Galena Park and Pasadena North entities that reported benzene air releases in the TRI.

² The TCEQ was in the process of evaluating the 2010 emissions inventory questionnaires (EIQ) during the development of this boundary evaluation. All information available at the time is provided in Table 3. If the EIQ had not yet been evaluated for a particular company, it is noted with "**."

Regulated Entity	Total Pounds of Benzene Air Emissions Reported in the 2009 TRI
Valero Refining Houston Refinery	3,241
Houston Refining	10,952
Pasadena Refining System	9,957
Chevron USA Galena Park Marketing Terminal	400
Targa Downstream Galena Park Terminal	966

Table 4: Pounds of Benzene Reported in the TRI

Designated Land Use and Proximity to Residential Areas and High-Traffic Roadways

The Galena Park and Pasadena North area is located in a heavily industrialized portion of Houston, east of Interstate Highway 610 (IH-610). The area encompasses industries along the Houston Ship Channel on its north and south shores. Neighborhoods to the north and the south are in very close proximity to the industrial area. In some instances, only a street separates residential properties from industrial boundaries.

Pollution Prevention Efforts

Some of the companies located within the Galena Park APWL area have voluntarily agreed to reduce volatile organic compound emissions. Specifically, KM Liquids Terminals Galena Park Terminal, Vopak Terminal Galena Park, and Enterprise Crude Pipeline Galena Park Terminal have entered into voluntary emission reduction agreements with the TCEQ as a part of the TCEQ's Find-and-Fix initiative. The KM Liquids Terminals Galena Park Terminal and Enterprise Crude Pipeline Galena Park Terminal spectrum and Enterprise Crude Pipeline Galena Park Terminal agreements have resulted in the reduction of volatile organic compounds, including benzene.

In addition, KM Liquids Terminals Galena Park Terminal agreed to allow the TCEQ to conduct fence-line monitoring to generate data on benzene levels as well as wind speed and direction data to identify the areas where elevated benzene concentrations affecting Galena Park and surrounding areas may be generated. KM Liquids Terminals Galena Park Terminal and the TCEQ agreed that the fence-line monitoring will be conducted for a time period not to exceed twelve months. The TCEQ is currently conducting the fence-line monitoring (as of the date of this document).

Boundary Definition

The Work Group proposes the following boundary for the Galena Park APWL:

East of the East Loop of IH-610 North of Highway 225

West of Olin Mathieson Road

South of Northside Belt Railroad (P.T.R.A.) and Industrial Road

There is a discrepancy between the existing APWL map and the map's narrative. The map, created on June 26, 2009, shows Lane Street as the northern boundary, yet the map's narrative describes Clinton Drive as the boundary, which is south of Lane Street. The Work Group proposes to eliminate this discrepancy by proposing the railroad as the northern boundary. The Work Group determined that Clinton Drive is not an appropriate boundary because two of the industrial sites of interest are located north of Clinton Drive. The Work Group determined that Lane Street is not the best boundary because it does not extend to the eastern or western boundaries. The Work Group is therefore proposing that the northern boundary be the Northside Belt Railroad. The railroad is located between Lane Street and Clinton Drive. The railroad is a clear geographical boundary that encompasses the industries identified on the existing map and should be easily identifiable by a member of the public or other interested parties.

The proposed boundary would encompass all industrial sites included on the existing APWL map and the boundary would be expanded eastward to include additional industrial sites. The boundary would move east of Federal Road, the existing APWL boundary, to Olin Mathieson Road. Olin Mathieson Road is only located south of the Houston Ship Channel. The boundary would also be expanded further east in the area north of the Houston Ship Channel, with Industrial Road as the northern and eastern boundary (this street curves to the southeast, toward the Houston Ship Channel).

The Work Group is proposing the streets identified above because they are the landmarks that encompass the industries that are likely contributing to the highest benzene concentrations observed at the Galena Park and Pasadena North monitoring sites, as discussed in the Source Determination portion of this document. Unfortunately, these landmarks also encompass some industries that do not emit benzene, as Table 3 illustrates. For example, the proposed boundary will include Agrifos Fertilizer Pasadena, Air Products Pasadena Plant, and Sekisui Specialty Chemicals America Pasadena Plant (Celanese, Ltd.). These companies do not emit benzene. As such, they will not be subject to more enhanced air permitting requirements, as long as they do not request to authorize benzene emissions.

The proposed boundary would include the portion of Pasadena Refining System that contains the majority of its benzene sources. The portion that will be included is adjacent to and east of the current Galena Park APWL boundary; however, the boundary would not encompass a small portion of the site that is non-contiguous and located south of Highway 225. Figure 4, *Proposed Galena Park APWL Map*, is a map that illustrates the proposed Galena Park APWL boundary and Table 5, *Map Legend for Proposed Galena Park APWL Map*, serves as a map legend indentifying the industrial facilities illustrated on the proposed map.



Figure 4: Proposed Galena Park APWL Map

Map Identifier	Company Name	RN Number
1	Pasadena Refining System	RN100716661
2	KM Liquids Terminals Pasadena Terminal	RN100224815
3	Agrifos Fertilizer Pasadena	RN101621944
4	Air Products Pasadena Plant	RN100221324
5	Sekisui Specialty Chemicals America Pasadena Plant	RN103012183
6	Magellan Terminals Holdings Galena Park Terminal	RN102180486
7	Chevron USA Galena Park Marketing Terminal	RN100706811
8	Targa Downstream Galena Park Terminal	RN100214212
9	Rig Solutions National Oilwell Varco Galena Park Facility	RN102309150
10	Gulf Coast Waste Disposal Authority Washburn Tunnel Facility	RN100219500
11	Shell Pipeline Company LCR Compressor and Dehydration Facility	RN104860002
12	Quala Systems Appelt Facility	RN100894773
13	Kinder Morgan Arrow Terminals Galena Park Facility	RN100870237
14	Texmark Chemicals	RN100238740
15	Enterprise Crude Pipeline Galena Park Terminal	RN101921781
16	Motiva Enterprises Pasadena Marketing Terminal	RN100211259
17	Vopak Terminal Galena Park	RN102753670
18	Valero Refining Houston Refinery	RN100219310
19	Houston Refining	RN100218130
20	KM Liquids Terminals Galena Park Terminal	RN100237452
21	Channel Energy Center	RN100213107
22	North Texas Cement Company	RN102415353
23	Dorsett Brothers Concrete Supply Plant 15B	RN104556691
24	AES Deepwater Cogeneration Plant	RN100216837
25	United States Gypsum	RN100212281

Table 5: Map Legend for Proposed Galena Park APWL Map

Public Comment Period

The TCEQ will accept comments on the proposed Galena Park APWL boundary. Interested persons may send comments to <u>APWL@tceq.texas.gov</u> or may send comments to the APWL coordinator at the following mailing address:

Ms. Tara Capobianco, P.E.

Air Pollutant Watch List Coordinator

Texas Commission on Environmental Quality

Chief Engineer's Office

MC-168

P.O. Box 13087

Austin, Texas 78711-3087

The TCEQ will accept comments through September 29, 2011. Any questions regarding the proposed boundary or the APWL process may be forwarded to Ms. Capobianco at (512) 239-1117.

Public Meeting

The TCEQ will conduct a public meeting to receive comments on the boundary proposal. The public meeting will be held on September 27, 2011 at 7:00 p.m. at the Alvin D. Baggett Recreation Building, located at 1302 Keene Street, Galena Park, Texas. The meeting will be structured for the receipt of oral or written comments by interested persons. Individuals may present statements when called upon in order of registration. Open discussion within the audience will not occur during the public meeting; however, TCEQ staff will be available to discuss the proposed boundary 30 minutes prior to the meeting and will also be available to answer questions after the meeting.

Persons who have special communication or other accommodation needs who are planning to attend the meeting should contact Ms. Capobianco as far in advance as possible.