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January 14, 2013

458147.B1.01

Mr. Paul Cho, PG Los Angeles Regional Water Quality Control Board 320 West Fourth Street, Suite 200 Los Angeles, CA 90013

Subject: Response to DLA Energy Approved Soil Cleanup Goals SPFF Norwalk Pump Station, Norwalk, CA

Dear Mr. Cho:

Pursuant to your request, CH2M HILL is submitting this letter on behalf of SFPP, L.P. (SFPP), an operating partnership of Kinder Morgan Energy Partners, L.P. (KMEP), to provide conditional concurrence with DLA Energy's proposed soil cleanup goals as presented in the Regional Water Quality Control Board, Los Angeles Region (RWQCB) approval letter to DLA Energy, dated July 12, 2012.

DLA Energy Soil Cleanup Goals

Parsons, DLA Energy's consultant, calculated soil cleanup goals per the methods provided in the RWQCB Interim Site Assessment and Cleanup Guidebook¹. Cleanup goals were calculated for total petroleum hydrocarbons (TPH); benzene, toluene, toluene, and total xylenes (BTEX) compounds; and other detected VOCs from Parsons' soil investigations at the site. TPH and BTEX cleanup goals were calculated based on the values provided on Table 4-1 of the Guidebook, *Maximum Soil Screening Levels for TPH and BTEX above Drinking Water Aquifers*. Cleanup goals for other VOCS detected in soil were calculated based on established maximum contaminant levels (MCLs) and attenuation factors provided on Table 5-1 of the Guidebook, *Average Attenuation Factor for Different Distance above Groundwater and Lithology*. For other VOCs without MCLs, soil cleanup goals were established using a hierarchy of groundwater objectives, as outlined in comments provided by the RWQCB. Calculations are based primarily on average lithologic types and thicknesses between the sampling depths and the underlying groundwater.

¹ California Regional Water Quality Control Board, Los Angeles Region. 1996. Interim Site Assessment and Cleanup Guidebook. May.

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Conditional Concurrence with DLA Energy Soil Cleanup Goals

SFPP concurs with DLA Energy's proposed soil cleanup goals as presented in the RWQCB approval letter to DLA Energy, dated July 12, 2012 with the following conditions:

- 1. **Depth to Groundwater.** It is well documented that groundwater and product levels at the site have fluctuated over time. Groundwater levels have ranged from approximately 23 to 28 feet bgs and product levels from approximately 20 to 30 feet bgs in the south-central and southeastern areas since monitoring first began². These historical fluctuations are consistent with the soil data obtained from SFPP's September 2012 soil boring investigation when it was confirmed that hydrocarbon impacts to soils are limited to the smear zone in both the south-central and southeastern areas³. The top of the smear zone was estimated to be at 25 feet bgs in the south-central area and 18 feet bgs in the southeastern area. In the southeastern area, observed hydrocarbon impacts from 18 feet bgs to current depth to groundwater are a result of groundwater and product level fluctuations rather than hydrocarbon impacts above the smear zone. Since DLA Energy's approved soil cleanup goals are based, in part, to the depth to groundwater which is currently estimated to be approximately 25 feet bgs, DLA Energy's soil cleanup goals from 15 to 25 feet bgs would not be applicable to SFPP.
- 2. **Constituents of Concern.** Petroleum hydrocarbons detected in the smear zone during SFPP's soil boring investigation included TPH, BTEX, and fuel oxygenates including methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), and di-isopropyl ether (DIPE). Other BTEX-related compounds such as 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 4-isopropyltoluene, isopropylbenzene, naphthalene, n-butylbenzene, n-propylbenzene, p-isopropyltoluene, and sec-butylbenzene were also detected within the smear zone. With the exception of 4-isopropyltoluene, all constituents are accounted for in DLA Energy's list of approved soil cleanup goals. Not all of the constituents provided in DLA Energy's soil cleanup goal list were detected during SFPP's soil investigation; therefore, SFPP will only concur with soil cleanup goals calculated for the constituents provided above. Furthermore, SFPP requests that the RWQCB acknowledge that some soil cleanup goals may be lower than achievable laboratory reporting limits (e.g., TBA, MTBE); therefore, the determination of compliance with some cleanup goals may not be possible with the current laboratory technology.

² CH2M HILL. 2012. Results of LNAPL Characterization in the Uppermost Groundwater Zone and Top of Bellflower Aquitard. February 8.

³ CH2M HILL. 2012. Results of Soil Boring Investigation, SFPP Norwalk Pump Station, 15306 Norwalk Boulevard, Norwalk, California. December 5.

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- 3. **TPH Quantification.** Soil cleanup goals are provided for TPH quantified as gasoline (TPH-g; C4-C12), TPH quantified as jet fuel 5 (TPH-jp-5; C8-C17), and TPH quantified as diesel (TPH-d; C5-C25). The approved soil cleanup goal for TPH-d ranges between 100 and 1,000 milligrams per kilogram (mg/kg), depending on the distance to groundwater. SFPP requests that the RWQCB allow SFPP to report TPH-d using its current reporting standard of C13-C22. SFPP concurs with reporting TPH-g using the C4-C12 carbon chain. Since the carbon chain for JP-5 (C8-C17) is included in the overall umbrella of carbon chains for TPH-g (C4-C12) and TPH-d (C13-C22), the soil cleanup goal for JP-5 would not be applicable to SFPP.
- 4. Additional Risk Assessment. The soil cleanup goals calculated using the methods in the RWQCB Interim Site Assessment and Cleanup Guidebook⁴ are based on conservative assumptions (e.g., regarding fate and transport, and biodegradation). SFPP reserves the right to perform additional site-specific risk assessments as deemed necessary based on future site conditions and data collected as part of ongoing investigation and remediation of the Norwalk Pump Station.

In summary, SFPP concurs with DLA Energy's approved soil cleanup goals for TPH-g, TPH-d, BTEX, MTBE, TBA, DIPE, and the BTEX-related compounds with the conditions provided above.

If you have any additional questions regarding this matter, please contact Dan Jablonski at (213) 228-8271, or Mr. Stephen Defibaugh, KMEP's Remediation Project Manager, at (714) 560-4802.

Sincerely,

CH2M HILL, Inc.

Taul R. Ja Mu

Dan Jablonski Project Manager

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Mark Wuttig, P.G. Senior Hydrogeologist

⁴ California Regional Water Quality Control Board, Los Angeles Region. 1996. Interim Site Assessment and Cleanup Guidebook. May.

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