

 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIVISION APPLICATION PROCESSING AND CALCULATIONS	PAGES 9	PAGE 1
	APPL. NO. 551689	DATE 07/5/2013
	PROCESSED BY Jon Uhl	CHECKED BY

PERMIT TO CONSTRUCT (new)

COMPANY NAME, LOCATION ADDRESS:

DeMenno/Kerdoon, Inc., SCAQMD ID # 800037
 2000 North Alameda Street
 Compton, CA 90222

EQUIPMENT DESCRIPTION:

New Permit to Construct :

Section H of DeMenno/Kerdoon Facility Permit, ID# 800037

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 7 : LOADING AND UNLOADING RACKS					
System 11 : MARINE DIESEL OIL UNLOADING (new)					S1.14
UNLOADING ARM, BOTTOM, TANK TRUCK, MARINE DIESEL OIL A/N: 551689	D562				B22.10, K67.4 K171.1
PUMP, MARINE DIESEL OIL UNLOADING, SINGLE MECHANICAL SEALS, P-XXX, 7.5 HP A/N: 551689	D563				K171.1

F16.1 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Records of the monthly (and quarterly where applicable) inspections, and subsequent repair and reinspection of VOC fugitive components subject to District 1173.

RULE 1173, 5-13-1994; RULE 1173, 2-6-2009

S1.14 The operator shall limit the unloading rate to no more than 100,000 gallon(s) in any one calendar month.

The operator shall monitor the throughput of materials unloaded, in gallons, by using certified truck scale records to determine the pounds of material unloaded, and a measurement of the specific gravity or API gravity of the material unloaded.

RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997;
RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002
 [Systems subject to this condition: Process 7, System 11]

 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIVISION APPLICATION PROCESSING AND CALCULATIONS	PAGES 9	PAGE 2
	APPL. NO. 551689	DATE 07/5/2013
	PROCESSED BY Jon Uhl	CHECKED BY

B22.10 The operator shall only use this equipment with materials having a(n) Reid vapor pressure of 1.20 psia or less under actual operating conditions.

The operator shall sample the marine diesel oil, from any of the devices subject to this condition, at least twice each calendar month, and test each sample for Reid vapor pressure (RVP) using SCAQMD-approved methods.

For compliance with this condition, the average of the RVP measurements for each calendar month shall be not greater than 1.20 psia.

RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997;

RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002

[Devices subject to this condition: D562]

K67.4 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

- Materials loaded, unloaded, or stored.
- Throughput of materials loaded, unloaded, or stored.
- True vapor pressure measurements (if required).
- Reid vapor pressure measurements (if required).
- Temperature measurements (if required).
- Material Safety Data Sheets (if required).

RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997;

RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002;

RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002

[Devices subject to this condition: D562]

K171.1 The operator shall provide to the District the following items:

Final drawings and/or specifications of the equipment installed/constructed/modified, including but not limited to PFD, P&ID and revisions/updates, shall be submitted to the SCAQMD within 60 days after completion of the project.

RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002;

[Devices subject to this condition: C142, C281, C300, C301, D554, D555, D556, D559, D560, D561, **D562, D563**]

BACKGROUND:

DeMenno/Kerdoon, Inc. (D/K, Facility ID #800037) operates a Title V, NOx-RECLAIM facility in the city of Compton. The initial Title V permit (A/N 334197) was issued on 7/1/2011. The Title V permit was last revised on July 1, 2013.

This facility receives RCRA fuel, used oil, used glycol (antifreeze) and oily wastewater. These materials are delivered by truck and unloaded into fixed roof storage tanks. RCRA fuel is stored and consolidated into

 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIVISION APPLICATION PROCESSING AND CALCULATIONS	PAGES 9	PAGE 3
	APPL. NO. 551689	DATE 07/5/2013
	PROCESSED BY Jon Uhl	CHECKED BY

larger shipments for resale. Oil and antifreeze are processed into recycled products. Oily water is processed in an industrial wastewater treatment system, and discharged to Los Angeles County Sanitation Districts (LACSD). Recycled products are loaded into tanker trucks or drums for shipment. D/K operations are also subject to a permit issued by the California Department of Toxic Substance Control (DTSC).

This application (A/N 551689) was received on May 22, 2013, for a new marine diesel oil (MDO) unloading rack.

The applicant proposes the following permit conditions:

1. A throughput limit of 100,000 gallons per calendar month.
2. Reid vapor pressure limit of 1.20 psia [the same RVP limit as MDO Loading (Process 7 : System 6)].
3. The same sampling and recordkeeping conditions as other unloading racks at this facility.

The MDO Unloading Rack is located near the RCRA Fuel Unloading Rack in the northeast corner of the facility (see Plot Plan, Attachment #1). This unloading rack is within 1000 feet from the outer boundary of the Jefferson Elementary School (located to the west of the D/K facility).

PROCESS DESCRIPTION:

The Marine Diesel Oil (MDO) Unloading Rack unloads MDO from tanker trucks into the MDO storage tanks (Process 6 : System 5) via one bottom loading arm using a pump with single mechanical seals. Process flow diagram LR-9 is included as Attachment #2.

MDO throughput is limited to 100,000 gallons per calendar month and the Reid vapor pressure is limited to 1.20 psia. Ongoing sampling is required to demonstrate compliance with the vapor pressure limit. Throughput is monitored by using certified truck scale records and a measurement of the specific gravity or API gravity of the material unloaded.

FEE EVALUTION

The fees paid for the application are:

Table 1 – Application Fees Paid

A/N	Equipment	BCAT	Type	Status	Fee Schedule	Fees Required, \$	Fees Paid, \$
551689	MDO Unloading P7:S11	343102	10	20	B	2,174.89	2,174.89
--	Expedited Permit Processing Fee	--	--	--	--	1,087.45	1,087.45
551687	RECLAIM/Title V deMinimis Significant Revision	555009	86	21	--	1,789.12	1,789.12

 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIVISION APPLICATION PROCESSING AND CALCULATIONS	PAGES 9	PAGE 4
	APPL. NO. 551689	DATE 07/5/2013
	PROCESSED BY Jon Uhl	CHECKED BY

EMISSIONS CALCULATIONS:

VOC emissions from bottom unloading operations are assumed to be negligible and the only emissions are from fugitives. DK supplied the unloading rack components counts.

Fugitive Emissions

***Fugitive Emissions from Components
(VOC Emissions)***

Source Type	Organic Gas Emission Factor (lbs/source/yr)	Component Count	Emissions (lb/yr)	Emissions (lb/day)	Emissions (lb/hour)
Valves in ROG vapor service	12	0	0		
Valves in light liquid service	47	0	0		
Valves in heavy liquid service	4.4	10	44.0		
Pumps in light liquid service	432	0	0		
Pumps in heavy liquid service	86	1	86.0		
Compressors in vapor recovery service	145	0	0		
PRVs to atmosphere (no rupture disc)	193	0	0		
Others (fittings, hatches, sight-glasses, meters, etc.)	4.9	5	24.5		
Totals		16	154.5	0.42	0.018

Table 2 – VOC Potential-to-Emit from the MDO Unloading Rack

	Uncontrolled Emissions	Controlled Emissions
New Unloading Rack	154.5 lb/year	154.5 lb/year
Maximum RVP = 1.20 psia	0.42 lb/day	0.42 lb/day
Maximum throughput = 100,000 gal/month	0.018 lb/hr	0.018 lb/hr

Rule 1401 Risk Calculation – Rack No. 5 (RCRA Fuel and Naphtha)

Total controlled ROG emissions are estimated to be 154.5 lb/year. TAC emission factors are not available for MDO; however, MDO is derived from the vacuum distillation of used oil. The TAC emission factors for MDO are expected to be less than those for used oil. D/K supplied TAC emission factors, lbs TAC per lb ROG, for used oil; these factors are used as a conservative estimate for MDO. These TAC emission factors are also used to report D/K's toxic emissions for the annual emission reporting (AER) program as well as their health risk assessment (HRA) for AB2588.

TAC Name	Emission Factor (lbs/lb)	Estimated emissions (lbs/year)	Estimated emissions (lbs/hr)
Benzene	0.000012	0.00185	2.12E-07
Ethylbenzene	0.000272	0.0420	4.80E-06
Toluene	0.000474	0.0732	8.36E-06
Xylene	0.00157	0.243	2.77E-05

The unloading rack passes the Tier 1 Screening Risk Assessment at 25 meters (included in Attachment #4).

 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIVISION APPLICATION PROCESSING AND CALCULATIONS	PAGES 9	PAGE 5
	APPL. NO. 551689	DATE 07/5/2013
	PROCESSED BY Jon Uhl	CHECKED BY

REVIEW OF COMPLIANCE DATABASE:

On 7/5/2013, the AQMD Compliance Database shows two (2) outstanding Notices to Comply (see Attachment #3) and no outstanding Notice of Violation.

RULES EVALUATION:

PART 1 STATE REGULATIONS

California Environmental Quality Act (CEQA)	
	DeMenno/Kerdoon has submitted Form 400-CEQA, which indicated that this is not a significant project.

PART 2 SCAQMD REGULATIONS

Rule 212	Standards for Approving Permits	November 14, 1997
	This unloading rack meets all the criteria in Rule 212 for permit approval. Rule 212 public notice is required.	
212(a)	The unloading rack is designed to operate without emitting air contaminants in violation of Division 26 of the State Health and Safety Code or in violation of AQMD's rules and regulations.	
212(b)	Does not apply; this is a Permit to Construct.	
212(c)(1)	The unloading rack is located within 1000 feet of a school. Rule 212 public notice is required.	
212(c)(2)	There is no VOC emission increase exceeding 30 lb/day.	
212(c)(3)	This unloading rack does not have an increased cancer risk greater than, or equal to, one in a million (1×10^{-6}) during a lifetime of 70 years or pose a risk of nuisance.	
Rule 401	Visible Emissions	November 9, 2001
	Visible emissions are not expected under normal operation.	
Rule 402	Nuisance	May 7, 1976
	Nuisance complaints are not expected under normal operating conditions.	
Rule 407	Liquid and Gaseous Air Contaminants	April 2, 1982
407(a)(1)	Does not apply. CO emissions are not expected.	
407(a)(2)	Discharge of sulfur compounds in excess of 500 ppmv, calculated as sulfur dioxide, is not expected.	

 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIVISION APPLICATION PROCESSING AND CALCULATIONS	PAGES 9	PAGE 6
	APPL. NO. 551689	DATE 07/5/2013
	PROCESSED BY Jon Uhl	CHECKED BY

Rule 1173	Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants	February 6, 2009
1173(b)	<p><u>Applicability:</u> Rule applies; this facility is a lubricating oil and grease re-refiner.</p> <p>On Form 400A, D/K gives their primary NAICS code as 32191 – Petroleum Lubricating Oil and Grease Manufacturing. Per the NAICS Association website (www.naics.com), this is equivalent to a 1987 SIC code 2992 – Lubricating Oils and Greases. This facility is included in the definition of a “lubricating oil and grease re-refiner” given in Rule 1173(c)(15), which includes SIC code 2992.</p> <p>DK will add all fugitive components installed for this new unloading rack to the facility Rule 1173 inspection, maintenance and repair program. This new unloading rack is expected to comply with Rule 1173 given proper periodic inspections and recordkeeping. Compliance with Rule 1173 requirements per condition F16.1.</p>	

REG XIII	New Source Review (NSR)	December 6, 2002										
		Application Deemed Complete: June 7, 2013										
	<u>Emissions Summary – Criteria Pollutants</u>											
	<table border="1"> <thead> <tr> <th>Pollutant</th> <th>R1 (lb/hr)</th> <th>R1 (lb/day)</th> <th>R2 (lb/hr)</th> <th>R2 (lb/day)</th> </tr> </thead> <tbody> <tr> <td>ROG</td> <td>0.018</td> <td>0.42</td> <td>0.018</td> <td>0.42</td> </tr> </tbody> </table>		Pollutant	R1 (lb/hr)	R1 (lb/day)	R2 (lb/hr)	R2 (lb/day)	ROG	0.018	0.42	0.018	0.42
Pollutant	R1 (lb/hr)	R1 (lb/day)	R2 (lb/hr)	R2 (lb/day)								
ROG	0.018	0.42	0.018	0.42								
1303(a)	BACT: The requirements of Rule 1303(a) do not apply since the estimated emissions are less than 1 lb/day. A pump with single mechanical seals is BACT for heavy liquid service. DK will add all fugitive components installed for this new unloading rack to the facility Rule 1173 inspection, maintenance and repair program.											
1303(b)(1)	Modeling: Modeling for VOC is not required (Rule 1303, Appendix A); no further modeling analysis is required.											
1303(b)(2)	Offsets: No offsets are required; controlled VOC emissions are less than 0.5 lb/day.											
1303(b)(3)	Sensitive Zone Requirements. ERC’s are not required.											
1303(b)(4)	Facility Compliance. This facility complies with all applicable District rules and regulations.											
1303(b)(5)	Major Polluting Facilities. This is not a new major polluting facility or major modification at an existing major polluting facility (ROG emission increase is less than 1 lb/day). Therefore, the provisions of this paragraph do not apply to this equipment.											

 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIVISION APPLICATION PROCESSING AND CALCULATIONS	PAGES 9	PAGE 7
	APPL. NO. 551689	DATE 07/5/2013
	PROCESSED BY Jon Uhl	CHECKED BY

Rule 1401	New Source Review of Toxic Air Contaminants	September 10, 2010 Application Deemed Complete: June 7, 2013
	The unloading rack passes the Tier 1 Screening Risk Assessment at 25 meters (included in Attachment #4).	
	Federal NSR for toxics does not apply since this unloading rack is not located at a plant site that is a major source as defined in 40CFR63, Subpart A, §63.2. This facility emits less than 10 tons per year of any HAP and 25 tons per year of all hazardous air pollutants (HAPs).	

Rule 1401.1	Requirements for New and Relocated Facilities Near Schools	November 4, 2005
1401.1(b)	This is an existing facility.	

REG XX	RECLAIM	May 6, 2005
	D/K has been designated as a NO _x RECLAIM facility. This unloading rack does not emit NO _x ; therefore, RECLAIM requirements do not apply.	

REG XXX	Title V	November 5, 2010																														
	DeMenno/Kerdoon was issued a Title V permit effective on July 1, 2011. This is a de minimis significant permit revision as defined in Rule 3000(b)(7), where the cumulative emission increases of non-RECLAIM pollutants or hazardous air pollutants (HAP) from all de minimis significant permit revisions during the term of the Title V permit are not greater than the threshold levels given in this rule.																															
	<table border="1"> <thead> <tr> <th>Air Contaminant</th> <th>Prior revisions</th> <th>This revision</th> <th>Total</th> <th>Threshold level</th> </tr> </thead> <tbody> <tr> <td>HAP</td> <td>0.</td> <td>0.</td> <td>0.</td> <td>30. lb/day</td> </tr> <tr> <td>VOC</td> <td>2.49</td> <td>0.42</td> <td>2.91</td> <td>30. lb/day</td> </tr> <tr> <td>PM10</td> <td>0.04</td> <td>0.</td> <td>0.04</td> <td>30. lb/day</td> </tr> <tr> <td>SO_x</td> <td>0.</td> <td>0.</td> <td>0.</td> <td>60. lb/day</td> </tr> <tr> <td>CO</td> <td>0.</td> <td>0.</td> <td>0.</td> <td>220. lb/day</td> </tr> </tbody> </table>		Air Contaminant	Prior revisions	This revision	Total	Threshold level	HAP	0.	0.	0.	30. lb/day	VOC	2.49	0.42	2.91	30. lb/day	PM10	0.04	0.	0.04	30. lb/day	SO _x	0.	0.	0.	60. lb/day	CO	0.	0.	0.	220. lb/day
Air Contaminant	Prior revisions	This revision	Total	Threshold level																												
HAP	0.	0.	0.	30. lb/day																												
VOC	2.49	0.42	2.91	30. lb/day																												
PM10	0.04	0.	0.04	30. lb/day																												
SO _x	0.	0.	0.	60. lb/day																												
CO	0.	0.	0.	220. lb/day																												
	Rule 3000 (b)(15)(A)(i)	This revision does not require or change a case-by-case evaluation of: reasonably available control technology (RACT) pursuant to Title I of the federal Clean Air Act; or maximum achievable control technology (MACT) pursuant to 40 CFR Part 63, Subpart B.																														
	(b)(15)(A)(ii)	This revision does not violate a regulatory requirement.																														
	(b)(15)(A)(iii)	This revision does not require any significant change in monitoring terms or conditions in the permit.																														
	(b)(15)(A)(iv)	This revision does not require relaxation of any recordkeeping, or reporting requirement, or term, or condition in the permit.																														

 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIVISION APPLICATION PROCESSING AND CALCULATIONS	PAGES 9	PAGE 8
	APPL. NO. 551689	DATE 07/5/2013
	PROCESSED BY Jon Uhl	CHECKED BY

(b)(15)(A)(vii)	This revision does not result in an increase in GHG emissions of >75,000 tpy CO ₂ e.
(b)(15)(A)(viii)	This revision does not establish or change a permit condition that the facility has assumed to avoid an applicable requirement.
(b)(15)(A)(ix)	This revision is not an installation of a new permit unit subject to a New Source Performance Standard (NSPS) pursuant to 40 CFR Part 60, or a National Emission Standard for Hazardous Air Pollutants (NESHAP) pursuant to 40 CFR Part 61 or 40 CFR Part 63.
(b)(15)(A)(x)	This revision is not a modification or reconstruction of an existing permit unit, resulting in new or additional NSPS requirements pursuant to 40 CFR Part 60, or new or additional NESHAP requirements pursuant to 40 CFR Part 61 or 40 CFR Part 63.
A de minimis significant permit revision is subject to a 45-day EPA review , Rule 3003(j) and not subject to public participation requirements, Rule 3006(b).	

PART 3 FEDERAL REGULATIONS

40CFR Part 61	Subpart FF - National Emission Standard for Benzene Waste Operations
§61.340	<u>Applicability</u> (a) This facility is not a chemical manufacturing plant, coke by-product recovery plant or petroleum refinery as defined in §61.341. (b) This facility does not treat, store or dispose of hazardous waste generated by any facility listed in paragraph (a). 40 CFR 61 Subpart FF does not apply to this facility.

40CFR Part 63	Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries
	Subpart DD - National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations
	<u>Applicability</u> - This facility is not a major source as defined in section 112(a) of the Clean Air Act or 40CFR §63.2. This facility emits less than 25 tons per year of all hazardous air pollutants (HAPs) listed in table 1 of this subpart, and less than 10 tons per year of any one HAP; therefore, this facility is not subject to the provisions of these Regulations.

 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIVISION APPLICATION PROCESSING AND CALCULATIONS	PAGES 9	PAGE 9
	APPL. NO. 551689	DATE 07/5/2013
	PROCESSED BY Jon Uhl	CHECKED BY

CONCLUSION

Based on the above evaluation, it is recommended that the following be issued:

A/N	Recommendation
551689	After the 45-day EPA review and 30-day Rule 212(c)(1)- school public notice, issue a permit to construct. Include the PTC in the deminimis significant revision to Title V Facility Permit, Section H.

List of Attachments

1. Facility Plot Plan
2. DeMenno/Kerdoon Process Flow Drawing # LR-9, dated 5/10/2013
3. AQMD Compliance Database (7/5/2013)
4. Rule 1401 Tier 1 Screening Risk Assessment