H-K CONTRACTORS, INC.
P. O. Box 51450
Idaho Falls, Idaho 83405
Phone (208) 523-6600

LETTER OF TRANSMITTAL No. 002

DE/AFS/SF

DATE 5/29/07	Job no.
ATTENTION Marcia Porter	
RE: Facility # 777-00028	

RECEIVED
MAY 31 2007
Department of Environmental Quality
State Air Program

TO: AIR QUALITY DIVISION
DEPARTMENT OF ENVIRONMENTAL QUALITY
1410 NORTH HILTON
BOISE, IDAHO 83706

GENTLEMEN:

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change Order ☐ Asphalt Mix Design ☒ RESPONSE

COPIES	DATE	NO.	DESCRIPTION
3	5/29/07		RESPONSE TO MAY 21, 2007 LETTER FOR ADDITIONAL
			INFORMATION ON A PERMIT APPLICATION FOR A
			PERMIT TO CONSTRUCT FOR THE HK CONTRACTORS, INC.
			TETON HMA PLANT - 139 HOT PLANT

THESE ARE TRANSMITTED as checked below:

☒ For approval ☐ Approved as Submitted ☐ Resubmit _____ copies for approval

☐ For your use ☐ Approved as noted ☐ Return _____ copies for distribution

☒ As requested ☐ Returned for corrections ☐ Return _____ corrected prints

☐ For review and comment ☐ _____

☐ FOR BIDS DUE _____ 20_____ ☐ PRINTS RETURNED AFTER LOAN TO US

PLEASE NOTE SUBMITTED ITEMS MAY HAVE A LEAD TIME FOR ORDERING, PLEASE REVIEW AND RETURN APPROVED SUBMITTALS IN A TIMELY MANNER TO AVOID DELAYS FOR THE PROJECT.

REMARKS _____

COPY TO FILE

SIGNATURE: Clarence H Davis

Clarence H Davis
~~Contract Administrator~~
PERMITS & ENVIRONMENTAL ADMINISTRATOR

IF ENCLOSURES ARE NOT AS NOTED, KINDLY NOTIFY US AT ONCE.

ECS

Environmental Consulting Services, LLP

451 Freedom Ave.
Billings, MT 59105
http://www.enviroconsult.com

Phone: (406) 254-1741
Fax: (406) 254-1742
Email: ecsinfo@enviroconsult.com

RECEIVED
MAY 31 2007
Department of Environmental Quality
State Air Program

May 30, 2007

Via Email to: Marcia.Porter@deq.idaho.gov
(Hardcopy to follow)

Ms. Marcia Porter
IDEQ - AQD
1410 North Hilton
Boise, ID 83706

SUBJECT: Response to the May 21, 2007 letter from IDEQ regarding a request for additional information on a Permit Application for a Permit to Construct for the H K Contractors, Inc. Teton HMA Plant.

Dear Ms. Porter:

Environmental Consulting Services, LLP (ECS) and H K Contractors, Inc. (HKC) are pleased to submit the enclosed information as a response to the May 21, 2007 letter from IDEQ regarding a request for additional information on a Permit Application for a Permit to Construct for the H K Contractors, Inc. Teton HMA Plant. ECS and HKC will respond to the letter in generally the same format as the May 21, 2007 letter for ease of review by IDEQ personnel as well as to present additional information regarding some changes to the Idaho Falls HMA Plant that will clear up many of the questions and issues presented in the May 21, 2007 letter. First we would like to present additional information/changes to the Permit Application:

The Dryer Drum stack parameters that will be modified/changed are:

1. Increase the stack height to 36 feet

Remodeling using these parameter changes, using the SCREEN3 model, has resulted in a *dispersion factor* of 4.585. Further assessment of both criteria pollutants and toxic air pollutants (TAPs), using the IDEQ provided spreadsheets, has resulted in all air quality parameters passing with no need for additional modeling and/or facility changes.

(1) Revise emission inventory:
Scrubber efficiency for particulates is estimated at greater than 70%. For additional information please see attached completed IDEQ spreadsheets.

(2) Facility-wide modeling for criteria pollutants:
Please see attached completed IDEQ spreadsheets for more information.

(3) Scaled plot plan:
This was provided to IDEQ by HKC prior to this response letter.

(4) NAAQS demonstration:
Please see attached completed IDEQ spreadsheets for more information.

(5) Idaho TAPs demonstration:
Please see attached completed IDEQ spreadsheets for more information.

(6) Annual production rates clarified:
The annual production rate requested is 250 tons per hour (T/hr) at 4,063 hours per year. This is reflected in the attached completed IDEQ spreadsheets.

Conclusion:
ECS and HKC are confident that the information contained within this letter will satisfy your request for additional information and we look forward to the IDEQ issuing a revised AQ Permit for the HKC Idaho Falls HMA Plant facility. If you should have any questions or need any further assistance please feel free to contact Kevin Walsh of ECS.

Respectfully submitted,

ENVIRONMENTAL CONSULTING SERVICES, LLP

Kevin K. Walsh
Partner/Consultant
KKW/jlw
Attachments: SCREEN3 Modeling Raw Data Inputs (1 page)
SCREEN3 Model Output (2 pages)
IDEQ Excel Spreadsheets

H K CONTRACTORS, INC. – CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS (BY RESPONSIBLE OFFICIAL)

"I hereby certify that based on information and belief formed after reasonable inquiry, the statements and information in this and any attached and/or referenced document(s) are true, accurate and complete in accordance with IDAPA 58.01.01.123-124."

(Signature) 05/30/07 (Date)

Clarence H. Davis (Printed Name) Permits & Environmental Administrator (Title)

05/29/07
16:13:36

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

H K Contractors Teton Facility HMA Plant Dryer Drum Dispersion Factor

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	.126000
STACK HEIGHT (M)	=	10.9700
STK INSIDE DIAM (M)	=	1.0200
STK EXIT VELOCITY (M/S)	=	25.7000
STK GAS EXIT TEMP (K)	=	325.9300
AMBIENT AIR TEMP (K)	=	293.0000
RECEPTOR HEIGHT (M)	=	1.0000
URBAN/RURAL OPTION	=	RURAL
BUILDING HEIGHT (M)	=	.0000
MIN HORIZ BLDG DIM (M)	=	.0000
MAX HORIZ BLDG DIM (M)	=	.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = 6.623 M**4/S**3; MOM. FLUX = 154.436 M**4/S**2.

*** FULL METEOROLOGY ***

****
*** SCREEN AUTOMATED DISTANCES ***
****

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
50.	.2866E-01	2	5.0	5.0	1600.0	28.55	11.08	6.99	NO
100.	1.653	3	10.0	10.1	3200.0	19.73	12.65	7.75	NO
200.	4.546	3	8.0	8.1	2560.0	21.92	23.83	14.37	NO
300.	4.342	3	5.0	5.0	1600.0	28.50	34.66	20.94	NO
400.	4.008	4	8.0	8.1	2560.0	21.87	29.62	15.58	NO
500.	3.727	4	5.0	5.1	1600.0	28.42	36.49	18.96	NO
600.	3.609	4	5.0	5.1	1600.0	28.42	43.01	21.79	NO
700.	3.377	4	4.5	4.6	1440.0	30.35	49.50	24.66	NO
800.	3.161	4	4.0	4.1	1280.0	32.78	55.92	27.50	NO
900.	2.970	4	3.5	3.5	1120.0	35.89	62.29	30.31	NO
1000.	2.794	4	3.0	3.0	960.0	40.05	68.63	33.15	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 50. M:

215.	4.585	3	8.0	8.1	2560.0	21.92	25.55	15.37	NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

****

*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	4.585	215.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

Date: **5/29/2007**

SCREEN3 Modeling Raw Data Inputs

Client: **H-K Contractors, Inc.**
Source: **Teton Facility HMA Plant (1959 Barber Green; Drum Mix; Parallel Flow)**
Type: **Dryer Drum**
Compound (Air Pollutant): **All, set at 1.0 pound per hour (lb/hr)**

1. Measured **or** estimated emission rate in either pounds per hour (lbs/hr) or grams per second (g/s):

   1.0 lb/hr or 0.126 g/s

2. Measurements of the exit stack height for the Source, above the ground level in either feet (ft) or meters (m):

   36 ft or 10.97 m

3. Measurements of the inside diameter of the stack for the Source in either ft or m:

   3.33 ft or 1.02 m

4. Measured **or** estimated rate of stack exit velocity in either feet per second (ft/s) or meters per second (m/s) of the stack for the Source:

   84.2 ft/s or 25.7 m/s

5. Measured **or** estimated stack gas temperature in either °F or °C of the stack for the Source:

   127 °F or 52.78°F or 325.93°K

6. Notification of any terrain in the area that is above the exit of the stack for the Source:

   None

7. Notification of the facilities setting as either Urban or Rural of the stack for the Source:

   Rural

8. Measurements of the buildings height in either ft or m, **if** there are any buildings associated with the stack for the Source:

   N/A

9. Measurements of the buildings minimum **and** maximum dimensions in either ft or m:

   N/A

10. Location of the facility, and/or nearest city:

    110 North 2300 East, Teton, ID

11. Measurements of distance from the stack for the Source to the property boundary in ft or m:

    Unknown

Facility: HK Contractors **Permit/Facility ID:** P-2007.0068 777-00028 5/30/2007 14:11

Drum Mix Asphalt Plant AP-42 Section 11.1, Change in Emissions: Natural Gas/Propane to No 2 Fuel Oil/Used Oil, with Scrubber

Fuel Type Toggle = 1
Hourly Throughput 250 T/hr
Proposed Operations 4,063 hrs/yr
Permitted Production (nat gas/propan 2,190,000 Tons/yr
Proposed Production (No. 2/used oil) 1,015,750 Tons/yr

Weight % Sulfur = 0.50%
For %S greater than 0.5%, SO2 emissions have been multiplied by a factor:
(AP-42, 1.3 emissions at S%)/(AP-42, 1.3 emissions at 0.5%)

Pollutant	Nat Gas or Propane Emission Factor (lb/ton)	Used Oil Emission Factor[a] (lb/ton)	Change in Emissions (lb/hr)	Permitted Emissions (T/yr)	Proposed Emissions (T/yr)
PM (total)[b]	0.045	0.045	0	49.28	22.85
PM-10 (total)[b For scrubber, presume same ratio as for baghouse 0.023 PM10 /0.033 PM	0.031	0.031	0.00	33.95	15.74
P.M.-2.5[b1]	*0.0029*	*0.0029*	0.00	3.18	1.47
CO[c]	0.13	0.13	0.00	42.71	19.81
NOx[c] (Propane NOx ~ 1.5x Nat Gas NOx)	0.039	0.055	1.20	12.81	8.38
SO_2[c]	0.0034	0.058	4.10	1.12	8.84
VOC[d]	0.032	0.032	0	10.51	4.88
Lead	6.20E-07	5.40E-04	4.05E+00	2.04E-02	8.23E+00
HCl[d,e]	No Data	0.00021	5.25E-02	---	1.07E-01
Dioxins[e,f]					
2,3,7,8-TCDD		2.10E-13	5.25E-11	0.00	1.07E-10
Total TCDD		9.30E-13	2.33E-10	0.00	4.72E-10
1,2,3,7,8-PeCDD		3.10E-13	7.75E-11	0.00	1.57E-10
Total PeCDD		2.20E-11	5.50E-09	0.00	1.12E-08
1,2,3,4,7,8-HxCDD		4.20E-13	1.05E-10	0.00	2.13E-10
1,2,3,6,7,8-HxCDD		1.30E-12	3.25E-10	0.00	6.60E-10
1,2,3,7,8,9-HxCDD		9.80E-13	2.45E-10	0.00	4.98E-10
Total HxCDD		1.20E-11	3.00E-09	0.00	6.09E-09
1,2,3,4,6,7,8-Hp-CDD		3.40E-11	8.50E-09	0.00	1.73E-08
Total HpCDD		7.10E-11	1.78E-08	0.00	3.61E-08
Octa CDD		2.70E-09	6.75E-07	0.00	1.37E-06
Total PCDD[h]		2.80E-09	7.00E-07	0.00	1.42E-06
Furans[e,f]					
2,3,7,8-TCDF		9.70E-13	2.43E-10	0.00	4.93E-10
Total TCDF		3.30E-11	8.25E-09	0.00	1.68E-08
1,2,3,7,8-PeCDF		4.30E-12	1.08E-09	0.00	2.18E-09
2,3,4,7,8-PeCDF		8.40E-13	2.10E-10	0.00	4.27E-10
Total PeCDF		8.40E-11	2.10E-08	0.00	4.27E-08
1,2,3,4,7,8-HxCDF		5.40E-12	1.35E-09	0.00	2.74E-09
1,2,3,6,7,8-HxCDF		1.20E-12	3.00E-10	0.00	6.09E-10
2,3,4,6,7,8-HxCDF		1.90E-12	4.75E-10	0.00	9.65E-10
1,2,3,7,8,9-HxCDF		8.40E-12	2.10E-09	0.00	4.27E-09
Total HxCDF		1.30E-11	3.25E-09	0.00	6.60E-09
1,2,3,4,6,7,8-HpCDF		1.10E-11	2.75E-09	0.00	5.59E-09
1,2,3,4,7,8,9-HpCDF		2.70E-12	6.75E-10	0.00	1.37E-09
Total HpCDF		3.80E-11	9.50E-09	0.00	1.93E-08
Octa CDF		4.80E-12	1.20E-09	0.00	2.44E-09
Total PCDF[h]		1.50E-10	3.75E-08	0.00	7.62E-08
Total PCDD/PCDF[h]		3.00E-09	7.50E-07	0.00	1.52E-06
Non-PAH HAPs[f]					
Acetaldehyde[e]		1.30E-03	3.25E-01	0.00	0.66
Acrolein[e]		2.60E-05	6.50E-03	0.00	0.01
Benzene[e]	3.90E-04	3.90E-04	0.00E+00	0.43	0.20
1,3-Butadiene[e]					
Ethylbenzene[e]	2.40E-04	2.40E-04	0.00E+00	0.26	0.12
Formaldehyde[e]	3.10E-03	3.10E-03	0.00E+00	3.39	1.57
Hexane[e]	9.20E-04	9.20E-04	0.00E+00	1.01	0.47
Isooctane	4.00E-05	4.00E-05	0.00E+00	0.04	0.02
Methyl Ethyl Ketone[e]		2.00E-05	5.00E-03	0.00	0.01
Pentane[e]					
Propionaldehyde[e]		1.30E-04	3.25E-02	0.00	0.07
Quinone[e]		1.60E-04	4.00E-02	0.00	0.08
Methyl chloroform[e]	4.80E-05	4.80E-05	0.00E+00	0.05	0.02
Toluene[e]	1.50E-04	2.90E-03	6.88E-01	0.16	1.47
Xylene[e]	2.00E-04	2.00E-04	0.00E+00	0.22	0.10

Pollutant	Nat Gas or Propane Emission Factor (lb/ton)	Used Oil Emission Factor[a] (lb/ton)	Change in Emissions (lb/hr)	Permitted Emissions (T/yr)	Proposed Emissions (T/yr)
PAH HAPs[f]					
2-Methylnaphthalene	7.40E-05	1.70E-04	2.40E-02	8.10E-02	8.63E-02
3-Methylchloranthrene[e]					
Acenaphthene	1.40E-06	1.40E-06	0.00E+00	1.53E-03	7.11E-04
Acenaphthylene	8.60E-06	2.20E-05	3.35E-03	9.42E-03	1.12E-02
Anthracene	2.20E-07	3.10E-06	7.20E-04	2.41E-04	1.57E-03
Benzo(a)anthracene	2.10E-07	2.10E-07	0.00E+00	2.30E-04	1.07E-04
Benzo(a)pyrene[e]	9.80E-09	9.80E-09	0.00E+00	1.07E-05	4.98E-06
Benzo(b)fluoranthene	1.00E-07	1.00E-07	0.00E+00	1.10E-04	5.08E-05
Benzo(e)pyrene	1.10E-07	1.10E-07	0.00E+00	1.20E-04	5.59E-05
Benzo(g,h,i)perylene	4.00E-08	4.00E-08	0.00E+00	4.38E-05	2.03E-05
Benzo(k)fluoranthene	4.10E-08	4.10E-08	0.00E+00	4.49E-05	2.08E-05
Chrysene	1.80E-07	1.80E-07	0.00E+00	1.97E-04	9.14E-05
Dibenzo(a,h)anthracene					
Dichlorobenzene					
Fluoranthene	6.10E-07	6.10E-07	0.00E+00	6.68E-04	3.10E-04
Fluorene	3.80E-06	1.10E-05	1.80E-03	4.16E-03	5.59E-03
Indeno(1,2,3-cd)pyrene	7.00E-09	7.00E-09	0.00E+00	7.67E-06	3.56E-06
Naphthalene[e]	9.00E-05	6.50E-04	1.40E-01	9.86E-02	3.30E-01
Perylene	8.80E-09	8.80E-09	0.00E+00	9.64E-06	4.47E-06
Phenanthrene	7.60E-06	2.30E-05	3.85E-03	8.32E-03	1.17E-02
Pyrene	5.40E-07	3.00E-06	6.15E-04	5.91E-04	1.52E-03
Non-HAP Organic Compounds[f]					
Acetone[e]		8.30E-04	2.08E-01	0.00E+00	4.22E-01
Benzaldehyde		1.10E-04	2.75E-02	0.00E+00	5.59E-02
Butane	6.70E-04	6.70E-04	0.00E+00	7.34E-01	3.40E-01
Butyraldehyde		1.60E-04	4.00E-02	0.00E+00	8.13E-02
Crotonaldehydee		8.60E-05	2.15E-02	0.00E+00	4.37E-02
Ethylene	7.00E-03	7.00E-03	0.00E+00	7.67E+00	3.56E+00
Heptane	9.40E-03	9.40E-03	0.00E+00	1.03E+01	4.77E+00
Hexanal		1.10E-04	2.75E-02	0.00E+00	5.59E-02
Isovaleraldehyde		3.20E-05	8.00E-03	0.00E+00	1.63E-02
2-Methyl-1-pentene	4.00E-03	4.00E-03	0.00E+00	4.38E+00	2.03E+00
2-Methyl-2-butene	5.80E-04	5.80E-04	0.00E+00	6.35E-01	2.95E-01
3-Methylpentane	1.90E-04	1.90E-04	0.00E+00	2.08E-01	9.65E-02
1-Pentene	2.20E-03	2.20E-03	0.00E+00	2.41E+00	1.12E+00
n-Pentane[e]	2.10E-04	2.10E-04	0.00E+00	2.30E-01	1.07E-01
Valeraldehyde[e]		6.70E-05	1.68E-02	0.00E+00	3.40E-02
Metals[g]					
Antimony[e]	1.80E-07	1.80E-07	0.00E+00	5.91E-03	2.74E-03
Arsenic[e]	5.60E-07	5.60E-07	0.00E+00	1.84E-02	8.53E-03
Barium[e]	5.80E-06	5.80E-06	0.00E+00	1.91E-01	8.84E-02
Beryllium[e]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cadmium[e]	4.10E-07	4.10E-07	0.00E+00	1.35E-02	6.25E-03
Chromium[e]	5.50E-06	5.50E-06	0.00E+00	1.81E-01	8.38E-02
Cobalt[e]	2.60E-08	2.60E-08	0.00E+00	8.54E-04	3.96E-04
Copper[e]	3.10E-06	3.10E-06	0.00E+00	1.02E-01	4.72E-02
Hexavalent Chromium[e]	4.50E-07	4.50E-07	0.00E+00	1.48E-02	6.86E-03
Manganese[e]	7.70E-06	7.70E-06	0.00E+00	2.53E-01	1.17E-01
Mercury[e]	2.40E-07	2.40E-07	0.00E+00	7.88E-03	3.66E-03
Molybdenum[e]					
Nickel[e]	6.30E-05	6.30E-05	0.00E+00	2.07E+00	9.60E-01
Phosphorus[e]	2.80E-05	2.80E-05	0.00E+00	9.20E-01	4.27E-01
Silver[e]	4.80E-07	4.80E-07	0.00E+00	1.58E-02	7.31E-03
Selenium[e]	3.50E-07	3.50E-07	0.00E+00	1.15E-02	5.33E-03
Thallium[e]	4.10E-09	4.10E-09	0.00E+00	1.35E-04	6.25E-05
Vanadium[e]					
Zinc[e]	6.10E-05	6.10E-05	0.00E+00	2.00E+00	9.29E-01

a) Emission factors are from AP-42 11.1, Hot Mix Asphalt Plants, 3/04
b) AP-42, Table 11.1-3, Particulate Matter Emission Factors for Drum Mix Hot Asphalt Plants, 3/04
b1) AP-42, Table 11.1-4, Summary of Particle Size Distribution for Drum Mix Dryers **(Emission Rating Factor E - "Poor")**
c) AP-42, Table 11.1-7, Emission Factors for CO. CO2, NOx, and SO2 from Drum Mix Hot Asphalt Plants, 3/04
d) AP-42, Table 11.1-8, Emission Factors for TOC, Methane, VOC, and HCl from Drum Mix Hot Asphalt Plants, 3/04
e) IDAPA Toxic Air Pollutant
f) AP-42, Table 11.1-10, Emission Factors for Organic Pollutant Emissions from Drum Mix Hot Asphalt Plants, 3/04
g) AP-42, Table 11.1-12, Emission Factors for Metal Emissions from Drum Mix Hot Mix Asphalt Plants, 3/04
h) Compound is classified as polycyclic organic matter, as defined in the 1990 CAAA. Total PCDD is the sum of the total tetra through octa dioxins; total PCDF is sum of the total tetra through octa furans; and total PCDD/PCDF is the sum of total PCDD and total PCDF.

Pollutants shown in bold/orange text are emitted when using Used Oil but not when using #2 Fuel Oil or Natural Gas.
Pollutants shown in magenta are emitted when using Used Oil or #2 Fuel Oil, but not when using Natural Gas
Dioxin/Furan emission factors are for using a baghouse, except EFs shown in green are based on uncontrolled emissions.
CO, NOx, SO2, VOC use Scrubber %. PARTICULATES ADJUSTED BY (1-Scrubber %)/(1-Baghouse %) **Baghouse: 99.00% Scrubber: 70.00%**

Facility: HK Contractors
5/30/2007 14:11 Permit/Facility ID: P-2007.0068 777-00028

MODELING FOR CHANGE IN ALLOWABLE EMISSIONS
(PTC EMISSION INVENTORY MINUS OLD PERMIT LIMITS)

Ambient Impacts - Screening Modeling

A. Drum Mix Plant: 250 Tons/hour 4,063 Hours/year 1,015,750 Tons/year HMA throughput 24 hrs/day
Maximum emission for each pollutant from any fuel-burning option selected on "Facility Data" worksheet

B. Tank Heater: 0.0000 MMBtu Rated 0 Hours/year 24 hrs/day
Maximum emission for each pollutant for heater burning any fuel selected on "Facility Data" worksheet

C. Generator: 0 gal/hour 0 Hours/year Small or Large Generator using Diesel Fuel 24 hrs/day

Release Parameters	Drum Dryer	Tank Heater	Generator	Load-out, Silo, Tank
Stack Height (ft)	36			
Stack Diameter (ft)	3.33			
Stack Gas Temp (°F)	127			
Stack Gas Flow (acfm)	(25.7 m/sec)			
Hours of Operation per Day	24			
Proposed Hours of Operation per Year	4,063			
SCREEN 3 Dispersion Coeff	4.59			

D. Include all emissions from Load-out/Silo/Storage? NO 0

[1] Persistence Factors from Appendix A to the Idaho DEQ Air Quality Modeling Guide, rev 1, 12/31/02

			Drum Dryer			Tank Heater			Generator			Load-out, Silo & Tank Storage		
Pollutant	Averaging Period	Persistence Factor, Simple Terrain[1] (unitless)	SCREEN 3 Dispersion Coefficient (µg/m³/lb/hr)	Estimated Change in Emission Rate[2] (lb/hr)	Maximum Predicted Ambient Impact (µg/m3)	SCREEN3 Dispersion Coefficient (µg/m³/lb/hr)	Estimated Change in Emission Rate[2] (lb/hr)	Maximum Predicted Ambient Impact (µg/m3)	SCREEN3 Dispersion Coefficient (µg/m³/lb/hr)	Estimated Change in Emission Rate[2] (lb/hr)	Maximum Predicted Ambient Impact (µg/m3)	ISCT3 Generic Dispersion Coefficient (µg/m³/TPH or µg/m³/TPY)	T/PH or TPY	Maximum Predicted Ambient Impact (µg/m3)
PM-10	24-hour	0.4	4.59	0.00	0.00							7.390E-02		
	Annual	0.08	4.59	-6.03	-1.03							1.747E-06		
CO	1-hour	1	4.59	0.00	0.00							1.895		
	8-hour	0.7	4.59	0.00	0.00							0.3973		
NO_2	Annual	0.08	4.59	-1.01	-0.17									
SO_2	3-hour	0.9	4.59	4.10	16.90									
	24-hour	0.4	4.59	4.10	7.51									
	Annual	0.08	4.59	1.76	0.30									
Ozone (as VOCs/TOCs)	8-hour	0.7	4.59	0.00	0.00									
Lead	Quarterly	0.130	4.59	0.47	0.03									
Non-Carcinogenic (585)[6]														
HCl [e]	24-hour	0.4	4.59	5.25E-02	9.63E-02									
Phosphorus[e]	24-hour	0.4	4.59		0.00E+00									
Propionaldehyde[e]	24-hour	0.4	4.59	3.25E-02	5.96E-02									
Quinone[e]	24-hour	0.4	4.59	4.00E-02	7.34E-02									
Carcinogenic (586)[6]														
Acetaldehyde[e]	Annual	0.125	4.59	1.51E-01	8.64E-02									
Arsenic[e]	Annual	0.125	4.59		0.00E+00									
Benzene[e]	Annual	0.125	4.59		0.00E+00									
Cadmium[e]	Annual	0.125	4.59		0.00E+00									
Dioxins/Furans (TEQ)[3]	Annual	0.125	4.59	1.90E-10	1.09E-10									
Hexavalent Chromium[e]	Annual	0.125	4.59		0.00E+00									
Formaldehyde[e]	Annual	0.125	4.59		0.00E+00									
Nickel[e]	Annual	0.125	4.59		0.00E+00									
PolycyclicOrganic Matter [4,e]	Annual	0.125	4.59		0.00E+00									

Facility: HK Contractors
5/30/2007 14:11 **Permit/Facility ID:** P-2007.0068 777-00028

MODELING FOR CHANGE IN ALLOWABLE EMISSIONS
(PTC EMISSION INVENTORY MINUS OLD PERMIT LIMITS)

Ambient Impacts - (based on Screening Modeling, NO CO-LOCATION)

A. Drum Mix Plant: **250** Tons/hour **4,063** Hours/year **1,015,750** Tons/year HMA throughput **24** hrs/day
Maximum emission for each pollutant from any fuel-burning option selected on "Facility Data" worksheet. Fuels Selected = Used Oil Natural Gas LPG/Propane
B. Tank Heater: MMBtu Rated Hours/year **24** hrs/day
Maximum emission for each pollutant for heater burning any fuel selected on "Facility Data" worksheet. Fuels Selected =
C. Generator: **0** gal/hour **0** Hours/year #2 Fuel Oil (diesel) **24** hrs/day

[4] Memo, March 14, 2003, Rick Hardy & Kevin Schilling to Mary Anderson (all DEQ State Office Air Division), "Background Concentrations for Use in New Source Review Dispersion Modeling"

[5] Non-Carcinogenic (585) Impacts converted to 24-hr average using persistence factor x (hrs/day)/24

[6] Carcinogenic (586) Impacts converted to annual average for dryer using persistence factor x (T/yr)/(T/hr * 8760) and persistence factor x (hrs/yr)/8760 for heater and generator

		Drum Dryer	Tank Heater	Generator	Load-out/ Silo/ Storage	HMA FACILITY TOTAL				
Pollutant	Averaging Period	Maximum Predicted Ambient Impact (µg/m3)	Maximum Predicted Ambient Impact (µg/m3)	Maximum Predicted Ambient Impact (µg/m3)	Maximum Predicted Ambient Impact (µg/m3)	Maximum Predicted Ambient Impact (µg/m3)	Background Concentration (µg/m3)[4]	Total Ambient Impact (µg/m3)	NAAQS (µg/m3)	Percent of NAAQS
PM-10	24-hour	0.00	0.00	0.00	0.00	0.00	**73**	73	150	48.7%
	Annual	-1.026	0.00	0.00	0.00	-1.03	**26**	25	50	49.9%
CO	1-hour	0.0	0.00	0.00	0.0	0.0	**3,600**	3,600	40,000	9.0%
	8-hour	0.0	0.00	0.00	0.0	0.0	**2,300**	2,300	10,000	23.0%
NO_2	Annual	-0.172	0.00	0.00		**-0.17**	**17**	17	100	16.8%
SO_2	3-hour	16.90	0.00	0.00		**16.9**	**34**	51	1,300	3.9%
	24-hour	7.51	0.00	0.00		**7.5**	**26**	34	365	9.2%
	Annual	0.30	0.00	0.00		**0.30**	**8**	8	80	10.4%
Ozone (as VOCs/TOCs)	8-hour	0.00	0.00	0.00		0.00		0	0.08 ppm	
Lead	Quarterly	3.24E-02	0.00E+00	0.00E+00		3.24E-02	**3.00E-02**	0.06	1.5	4.2%
Non-Carcinogenic (585)									AAC (mg/m^3) (24-hr avg)	Percent of AAC
HCl [e]	24-hour	9.63E-02	0.00E+00	0.00E+00		**9.63E-02**		9.63E-02	0.375	0.026%
Phosphorus[e]	24-hour	0.00E+00	0.00E+00	0.00E+00		0.00E+00		0.00E+00	0.005	0.000%
Propionaldehyde[e]	24-hour	5.96E-02	0.00E+00	0.00E+00		**5.96E-02**		5.96E-02	0.0215	0.277%
Quinone[e]	24-hour	7.34E-02	0.00E+00	0.00E+00		**7.34E-02**		7.34E-02	0.020	0.367%
Carcinogenic (586)							**T-RACT Factor:**	**1**	AACC (µg/m^3) (Annual Avg x T-RACT Factor)	Percent of AACC
Acetaldehyde[e]	Annual	**8.64E-02**	0.00E+00	0.00E+00	0.00E+00	**8.64E-02**		**8.64E-02**	**4.50E-01**	**19.2%**
Arsenic[e]	Annual	0.00E+00	0.00E+00	0.00E+00		0.00E+00		0.00E+00	2.3E-04	0.0%
Benzene[e]	Annual	0.00E+00	0.00E+00	0.00E+00		0.00E+00		0.00E+00	1.2E-01	0.0%
Cadmium[e]	Annual	0.00E+00	0.00E+00	0.00E+00		0.00E+00		0.00E+00	5.6E-04	0.0%
Dioxins/Furans (TEQ)	Annual	**1.09E-10**				**1.09E-10**		**1.09E-10**	**1.50E-10**	**72.6%**
Hexavalent Chromium[e]	Annual	0.00E+00	0.00E+00	0.00E+00		0.00E+00		0.00E+00	8.3E-05	0.0%
Formaldehyde[e]	Annual	0.00E+00	0.00E+00	0.00E+00		0.00E+00		0.00E+00	7.7E-02	0.0%
Nickel[e]	Annual	0.00E+00	0.00E+00	0.00E+00		0.00E+00		0.00E+00	4.2E-03	0.0%
PolycyclicOrganic Matter[d,e]	Annual	0.00E+00		0.00E+00		0.00E+00		0.00E+00	3.0E-04	0.0%