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Mr. Nathan Putnam, Environmental Engineer New York State Department of Environmental Conservation Division of Environmental Remediation 625 Broadway Albany, NY 12233-7015



Subject:

Air Emission Regulatory Review and Current Status, Related Calculations, and Proposed Modifications to Current System Configuration and Monitoring Procedures, Soil Vapor Recovery System, United Stellar Industries, Plainview, New York, NYSDEC Site #1-30-115

Dear Mr. Putnam:

On behalf of 131 Sunnyside, LLC (Sunnyside) and Gertrude Discount (Discount), ARCADIS of New York, Inc. (ARCADIS) is providing the New York State Department of Environmental Conservation (NYSDEC) with the attached air emissions regulatory review summary and current regulatory status of the soil vapor recovery system (VRS) air emissions at the United Stellar Industries site, located in Plainview, New York. The goal of the evaluation presented herein is to determine if the removal of trichloroethylene (TCE) or other site-related compounds from effluent air emissions is required for the VRS to meet applicable regulatory criteria and/or provide protection of human health and the environment. Based on the evaluation described below, ARCADIS concludes that the untreated VRS air emissions meet applicable regulatory criteria and that the removal of the vapor phase granular activated carbon (VPGAC) unit is appropriate at this time.

The air emission evaluation conducted as well as the proposed modifications to the VRS configuration and the respective rationale for the proposed modifications is provided below.

Air Emission Regulatory Framework

As you are aware, there are several regulations in the New York Codes Rules and Regulations (NYCRR) that govern air emissions, treatment requirements, and related permitting requirements. However, as a result of the complicated organization of these regulations, and the continuous updates of both the NYCRR, and federal regulations, the NYSDEC issued the technical guidance document entitled "DAR-1" to assist facilities in understanding the applicable requirements and review mechanism of the Division of Air Resources (DAR). Appropriately, the DAR-1 technical guidance criteria were followed in evaluating the emissions from the United

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Date: August 20, 2009

Contact: Doug Smolensky

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Email: Doug.Smolensky@arcadisus.com

Our ref: NY001422.0004.00002

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Stellar Industries site VRS. Specifically, the process used to evaluate the VRS air emissions included the following:

- 1. Identify site-related air toxics.
- Determine the hazard rating, maximum emission rate potential (ERP), (based on the highest observed emission rate since startup) and current emission rate (CER) (based on May 28, 2009 data), for individual air toxics based on actual site data.
- Determine the actual annual impact and short-term impact for each air toxic using a site-specific air emissions model. Compare the actual impacts to applicable air standards for individual air toxics.
- 4. Determine the degree of air cleaning required in Table 3 of 6 NYCRR 212.9 for each air toxic.
- 5. Determine the permitting requirements for air emissions based on 6 NYCRR

Tab Proce	le 3 of 6 NYCRR 212.9 ess Emission Sources in the New Yo	 Degree of Air Cleanin Emitting Volatile Orga ork City Metropolitan Ar 	ng Required for nic Compounds rea						
Environmental	E	MISSION RATE POTEN	ITIAL (LB/HR)						
Rating	Less than 1.0	1 to 3.5	Greater than 3.5						
А	*	99% OR GREATER (T	OR BEST AVAILABLE CONTRO ECHNOLOGY						
B or C		* REASONABLY AVAI							
D	NO AIR CLEAN	ING REQUIRED	REASONABLY AVAILABLE CONTROL TECHNOLOGY						

* Degree of air cleaning required will be specified by the commissioner. Part 201.

As referenced in item number 4 above, the primary air emission treatment requirement regulation in the State of New York is 6 NYCRR Part 212 "General Process Emission Sources". The primary citation within 6 NYCRR Part 212 that regulates air emission regulatory status and treatment requirements for the New York

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Metropolitan Area (which is defined to include Nassau County) is Table 3 of 6 NYCRR Part 212.9. A copy of Table 3 is provided above.

As shown in Table 3 of 6 above, treatment requirements for individual air toxics are based on their respective emission rate potential and their environmental rating. "A" rated compounds are considered a significant risk to human health and the environment and require special consideration. Where applicable, the DAR-1 indicates that "A" rated contaminants be treated to the extent practicable at emission rates of less than 1.0 lb/hr. However, the DAR-1 further indicate "if the hourly emission rate of an "A" rated air toxic is less than 0.1 pound per hour and the ambient impact is less than both the Annual Guideline Concentration (AGC) and the Short-term Guideline Concentration (SGC), the no control option may be considered by the RAPCE."

"B and C" rated compounds require reasonably available control technology (RACT) for individual emissions of greater than 3.5 lb/hr. For emission rates of less than 3.5 lb/hr, the DAR-1 infers that RACT only be provided if required to reduce the annual impact or short-term impact to below applicable discharge criteria (i.e., the AGC or SGC). If RACT is required, the removal efficiency of the RACT will correspond to the required removal efficiency to treat the respective individual air toxic(s) to below their respective AGC or SGC.

For completeness, ARCADIS has also provided herein, a brief summary of applicable air emission permit regulatory requirements and the current regulatory status of the VRS with respect to these requirements. Air emission permit regulatory requirements are generally set forth in 6 NYCRR Part 201. The VRS is exempt from facility air permitting requirements under 6 NYCRR Part 201-3.3(c)(29) because the facility is under an Order on Consent but must meet the substantive requirements set forth in the air emission regulations. 6 NYCRR Part 201.2.1(21)(i) also provides further clarification on the definition of a major stationary source as it pertains to hazardous air pollutants (HAPs). Specifically, "for hazardous air pollutants other than radionuclides, a major source is defined as any stationary emission units or group of stationary emission units located within a contiguous area, under common control, that emits or has the potential to emit, in the aggregate, 10 [tons per year] (tpy) or more of any hazardous air pollutant as defined in Part 200 of this Title (including any fugitive emissions of such pollutant), 25 tpy or more of any combination of such hazardous air pollutants (including any fugitive emissions of such pollutants), or such lesser quantity as the administrator may establish by rule ... "

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Current Regulatory Status of Soil Vapor Recovery System

ARCADIS has reviewed and evaluated the current regulatory status of influent vapor quality using the general DAR-1 approach described herein. It should be noted that the influent vapor quality would represent the stack emissions if the vapor treatment is removed as proposed. The evaluation is summarized in the following four tables:

- Table 1 provides a summary of the identified site-related air toxics, their current hazard ratings as identified in the DAR-1 AGC/SGC tables (NYSDEC 2007), and their respective ERP and CER.
- Table 2 provides a summary of the current regulatory status of influent emissions related to the discharge criteria set forth in DAR-1 using sitespecific SCREEN3 model output. Attachments A-1 and A-2 provide back-up calculations for the SCREEN 3 model data provided in Table 2.
- Table 3 provides a summary of influent vapor quality compared to the SGCs set forth in DAR-1.
- Table 4 provides a summary of the ERP and CER (i.e., May 28, 2009) regulatory status as it pertains to air permitting and the definition of a major stationary source (i.e., 6 NYCRR Part 201).

The following can be concluded from Table 1:

- One A rated air toxins, benzene, 24 B or C rated air toxics, and three unrated air toxic (Freon 12, 4-Ethyltoluene and 1,2,4-Trimethylbenzene) have been identified in the influent vapor quality of the VRS.
- The ERP for the A rated compound is <u>four</u> orders of magnitude lower than the 0.1 pound per (lb/hr), criteria used by DAR-1 to identify sites that qualify for the no control option for A rated compounds.
- The CER for benzene is 0.0 lb/hr.
- The ERP for all B, C, and unrated compounds is significantly less than 3.5 lbs/hr DAR-1 criteria used to identify sites requiring RACT.
- Similarly, the CER for all B, C, and unrated compounds is significantly less than 3.5 lbs/hr DAR-1 criteria used to identify sites requiring RACT.

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The following can be concluded from Table 2 and 3:

- The instantaneous percent (i.e., not time-weighted) of the site-specific annual ambient impact for each of the detected compounds is well below each of their respective maximum allowable ambient impacts during the last year of system operation.
- Likewise, the time-weighted site-specific cumulative percent of the annual impacts is well below the calculated discharge criteria. These data indicate that the influent untreated vapor emission is well below all guidance values as set forth in the DAR-1. Furthermore, these data indicate that further treatment is not required for all B and C related compounds to meet applicable air emission guidance criteria set forth in the DAR-1.
- The influent concentration of all air toxics is currently and has historically been below their respective SGCs.

The following can be concluded from Table 4:

- The ERP and CER of individual HAPs (i.e., air toxics) are significantly below their respective major stationary source permitting criteria. This indicates that the facility is not a major stationary source and further corroborates that RACT is not required for "B" and "C" rated compounds.
- The data indicate that this facility is subject to the Minor Facility Registration requirements. As referenced previously, this facility is exempt from acquiring permits under 6 NYCRR Part 201-3.3(c)(29).

In summary, both the ERP and CER are below all criteria that define the minimum requirements for providing air treatment for "B and C" rated compounds. In addition, the ERP for "A" rated compounds is four orders of magnitude lower than the criteria established to allow the no control option for "A" rated compounds. The CER for benzene is 0.0 lb/hr. Finally, the vapor concentrations of all compounds are below their respective SGCs. Based on engineering experience at similar sites, it is expected that influent vapor concentrations will continue to be stable or decline. Accordingly, the analysis herein provides clear evidence that VPGAC and/or other air emission treatment alternatives for the VRS are not required.

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Proposed Modifications to the Soil Vapor Recovery System

As described below, modifications to the VRS Operation, Maintenance and Monitoring (OM&M) are proposed. The modifications to the VRS will be implemented during the fall of 2009. The specific VRS modifications include the following:

- Removal of the vapor phase granular activated carbon (VPGAC) unit. Based on the analysis presented herein, Sunnyside proposes to remove the VPGAC unit from operation during September 2009.
- Perform VRS performance and compliance monitoring on a quarterly basis. Sunnyside will continue to collect monthly monitoring data through September 2009 to document that influent air emissions continue to operate at steady-state or declining conditions. Accordingly, the first quarterly monitoring event will be completed in December 2009.

Note that this does not preclude the implementation of non-routine monitoring events to collect additional data if system troubleshooting is required. Site visits will be completed on a monthly basis to monitor system flow rates and vacuums as well as maintain system equipment.

If you have any questions, please do not hesitate to contact us at any time.

Sincerely,

ARCADIS

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Doug Smolensky Associate Vice President

Christing Buardi Turky (09)

Christina Berardi Tuohy, PE Principal Engineer

^{Copies:} Fred Werfel Mike Tone File TABLES

Table 1. Summary of Site Related Air Toxics, Hazard Rating, Emission Rate Potential and Current Emission Rates, United Stellar Industries, Plainview, NY

Detected Air Compound	Environmental Hazard Rating	Maximum Observed Influent Concentration ⁽¹⁾	Date**	Air Flow Rate at Maximum Observed Concentration	ERP ⁽²⁾	May 28, 2009 Influent Concentrations	CER
		(µg/m ³)		(acfm)	(lbs/hr)	(µg/m ³)	(lbs/hr)
Freon 12	NR	85	9/8/2006	272	8.66E-05	12	8.59E-06
Freon 113	С	452	6/30/2006	370	6.26E-04	12	8.59E-06
1,1,1-Trichloroethane	С	442	6/30/2006	370	6.13E-04	ND	0.00E+00
Chloroform	В	61	6/30/2006	370	8.45E-05	ND	0.00E+00
Trichloroethene	В	8,476	6/30/2006	370	1.17E-02	1,161	8.31E-04
Tetrachloroethene	В	167	6/30/2006	370	2.31E-04	48	3.43E-05
cis-1,2-Dichloroethene	В	227	5/29/2007	281	2.39E-04	80	5.72E-05
1,1-Dichloroethane	С	7	7/28/2006	133	3.49E-06	ND	0.00E+00
Toluene	С	222	10/30/2008	194	1.61E-04	47	3.36E-05
2-Propanol	В	169	6/16/2006	330	2.09E-04	35	2.50E-05
Methylene Chloride	В	18	5/28/2009	191	1.29E-05	18	1.29E-05
Carbon Disulfide	В	22	7/23/2008	203	1.67E-05	ND	0.00E+00
Hexane	В	62	4/3/2008	217	5.04E-05	29	2.08E-05
2-Butanone	В	13	4/3/2008	217	1.06E-05	8	5.72E-06
Ethanol	С	55	4/3/2008	217	4.47E-05	19	1.36E-05
Acetone	С	51	5/28/2009	191	3.65E-05	51	3.65E-05
Benzene	А	16	4/3/2008	217	1.30E-05	ND	0.00E+00
1,2-Dichloropropane	В	12	7/23/2008	203	9.12E-06	ND	0.00E+00
Tetrahydrofuran	В	26	11/25/2008	194	1.89E-05	ND	0.00E+00
2,2,4-Trimethylpentane	В	39	11/25/2008	194	2.83E-05	ND	0.00E+00
Ethyl Benzene	В	13	11/25/2008	194	9.45E-06	ND	0.00E+00
m,p-Xylene	В	58	11/25/2008	194	4.22E-05	9	6.44E-06
o-Xylene	В	32	11/25/2008	194	2.33E-05	ND	0.00E+00
4-Ethyltoluene	NR	33	11/25/2008	194	2.40E-05	ND	0.00E+00
1,3,5-Trimethylbenzene	В	24	11/25/2008	194	1.74E-05	ND	0.00E+00
1,2,4-Trimethylbenzene	NR	39	11/25/2008	194	2.83E-05	ND	0.00E+00
Heptane	В	9	10/30/2008	194	6.54E-06	ND	0.00E+00
Cyclohexane	С	46	5/28/2009	191	3.29E-05	46	3.29E-05

See notes on next page.

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Table 1. Summary of Site Related Air Toxics, Hazard Rating, Emission Rate Potential and Current Emission Rates, United Stellar Industries, Plainview, NY

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Notes:

1. Maximum observed influent concentration represents the highest observed concentration for an individual compound between system startup (June 2006) and May

2. Maximum emission rate potential calculated by multiplying the maximum observed influent concentration by the stack air flow rate on the sample date and the appropriate conversion factors.

AGC/SGC - Annual and short-term guideline concentrations specified in the NYSDEC DAR-1 AGC/SGC tables revised September 10, 2007.

µg/m³ - Micrograms per cubic meter

acfm - Actual cubic feet per minute

Ibs/hr - Pounds per hour

ERP - Emission rate potential

CER - Current emission rate based on May 28, 2009 monitoring data

NS - No standard provided in the NYSDEC DAR-1 AGC/SGC tables, revised September 10, 2007.

A - Constituent is considered a "high" toxicity rated compound per the NYSDEC DAR-1 AGC/SGC tables, revised September 10, 2007.

B - Constituent is considered a "medium" toxicity rated compound per the NYSDEC DAR-1 AGC/SGC tables, revised September 10, 2007.

C - Constituent is considered a "low" toxicity rated compound per the NYSDEC DAR-1 AGC/SGC tables, revised September 10, 2007.

NR - Constituent toxicity is not rated in the NYSDEC DAR-1 AGC/SGC tables, revised September 10, 2007.

ND - Compound not detected above method detection limit.

** - Original flow rate parameter collected on 11/25/08 and 10/30/08 or was erroneous, data point reported is reading taken on 09/30/08.

Table 2. Influent Vapor Air Emissions Model Output Summary, Soil Vapor Recovery System, Soil Vapor Recovery System, United Stellar Industries, Planview, NY

	AGC ⁽²⁾		Percent of Maximum Allowable Ambient Impact Per Event ⁽³⁾										Cumulative %
Compound ⁽¹⁾		06/26/08	07/23/08	08/28/08	09/30/08	10/30/08	11/25/08	01/14/09	02/25/09	03/31/09	05/12/09	05/28/09	Allowable Ambient Impact
	(µg/m ³)												(*)
Freon 12	12,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Freon 113	180,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1,1,1-Trichloroethane	1,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Chloroform	0.04	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Trichloroethene	0.5	31.16%	29.25%	36.65%	23.73%	22.12%	34.62%	13.25%	9.18%	13.23%	14.01%	23.64%	20.40%
Tetrachloroethene	1	0.67%	0.65%	0.83%	0.53%	0.00%	0.31%	0.29%	0.09%	0.28%	0.11%	0.49%	0.30%
cis-1,2-Dichloroethene	63	0.02%	0.02%	0.03%	0.02%	0.03%	0.05%	0.01%	0.01%	0.01%	0.01%	0.01%	0.02%
1,1-Dichloroethane	0.63	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Toluene	5,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2-Propanol	7,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Methylene Chloride	2.1	0.00%	0.00%	0.00%	0.00%	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.09%	0.00%
Carbon Disulfide	700	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hexane	700	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2-Butanone	5,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ethanol	45,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Acetone	28,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Benzene	0.13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1,2-Dichloropropane	4	0.00%	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Tetrahydrofuran	350	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2,2,4-Trimethylpentane	3,300	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ethyl Benzene	1,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
m,p-Xylene	100	0.00%	0.00%	0.00%	0.00%	0.01%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
o-Xylene	100	0.00%	0.00%	0.00%	0.00%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4-Ethyltoluene	NS												
1,3,5-Trimethylbenzene	290	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1,2,4-Trimethylbenzene	290	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Heptane	3,900	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Cyclohexane	6,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

See notes on last page.

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Table 2. Influent Vapor Air Emissions Model Output Summary, Soil Vapor Recovery System, United Stellar Industries, Planview, NY

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Notes:

- 1. Compounds listed include all constituents detected in the system combined influent vapor stream.
- 2. AGC refers to the compound-specific annual guideline concentration per the NYSDEC DAR-1 AGC/SGC tables, revised September 10, 2007. NYSDEC DAR-1 AGCs were scaled using the results of a site-specific annual USEPA SCREEN 3 model to calculate the annual maximum allowable ambient impact per monitoring event.
- 3. Percent of AGC was calculated by dividing the actual effluent concentration by the site-specific annual Maximum Allowable Ambient Impact.
- 4. Cumulative percent of the Maximum Allowable Ambient Impact was calculated using a time-weighted average of the percent Maximum Allowable Ambient Impact per event.

µg/m³ - Micrograms per cubic meter.

- AGC Annual guideline concentration.
- NS No standard provided in the NYSDEC DAR-1 AGC/SGC tables, revised September 10, 2007.
- -- Could not be calculated, no standard provided.

Table 3. Summary of Total Influent Vapor Sample Analytical Results Compared to DAR-1 SGCs, United Stellar Industries, Planview, NY⁽¹⁾

Compound ⁽²⁾ (units in ug/m3)	Location ID: Sample Date:	Combined Influent 6/26/2008	Combined Influent 7/23/2008	Combined Influent 8/28/2008	Combined Influent 9/30/2008	Combined Influent 10/30/2008	Combined Influent 11/25/2008
	SGC						
Freon 12	NS	16	15	24	17	7	12
Freon 113	960,000	19	20	41	14	ND	ND
1,1,1-Trichloroethane	68,000	11	14	18	12	ND	ND
Chloroform	150	ND	ND	ND	ND	ND	ND
Trichloroethene	14,000	1,562	1,448	1,798	1,158	359	560
Tetrachloroethene	1,000	67	64	81	52	ND	10
cis-1.2-Dichloroethene ⁽³⁾	190.000	102	100	186	149	61	92
1.1-Dichloroethane	NS	ND	ND	ND	ND	ND	ND
Toluene	37.000	ND	31	ND	ND	222	24
2-Propanol	98,000	ND	ND	ND	ND	ND	ND
Methylene Chloride	14,000	ND	ND	ND	ND	7	ND
Carbon Disulfide	6,200	ND	22	ND	ND	ND	ND
Hexane	NS	ND	ND	ND	ND	ND	ND
2-Butanone	13,000	ND	ND	ND	ND	4	7
Ethanol	NS	ND	ND	ND	ND	ND	ND
Acetone	180,000	ND	ND	ND	15	ND	15
Benzene	1,300	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NS	ND	12	ND	ND	ND	ND
Tetrahydrofuran	30,000	ND	ND	ND	ND	16	26
2,2,4-Trimethylpentane	NS	ND	ND	ND	ND	24	39
Ethyl Benzene	54,000	ND	ND	ND	ND	8	13
m.p-Xvlene	4.300	ND	ND	ND	ND	36	58
o-Xylene	4,300	ND	ND	ND	ND	20	32
4-Ethyltoluene	NS	ND	ND	ND	ND	20	33
1,3,5-Trimethylbenzene	NS	ND	ND	ND	ND	15	24
1,2,4-Trimethylbenzene	NS	ND	ND	ND	ND	24	39
Heptane	210,000	ND	ND	ND	ND	9	ND
Cyclohexane	NS	ND	ND	ND	ND	ND	ND
TVOC		1,777	1,726	2,148	1,417	832	984

See notes and abbreviations on last page.

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Table 3. Summary of Total Influent Vapor Sample Analytical Results Compared to DAR-1 SGCs, United Stellar Industries, Planview, NY⁽¹⁾

Compound ⁽²⁾ (units in ug/m3)	Location ID: Sample Date:	Combined Influent 1/14/2009	Combined Influent 2/25/2009	Combined Influent 3/31/2009	Combined Influent 5/12/2009	Combined Influent 5/28/2009	
	SGC				_		
Freon 12	NS	ND	ND	ND	ND	12	
Freon 113	960,000	ND	ND	ND	ND	12	
1,1,1-Trichloroethane	68,000	ND	ND	ND	ND	ND	
Chloroform	150	ND	ND	ND	ND	ND	
Trichloroethene	14,000	644	444	643	689	1.161	
Tetrachloroethene	1,000	28	9	27	11	48	
cis-1.2-Dichloroethene(3)	190.000	82	53	67	66	80	
1.1-Dichloroethane	NS	ND	ND	ND	ND	ND	
Toluene	37,000	ND	ND	ND	ND	47	
2-Propanol	98,000	ND	ND	ND	ND	35	
Methylene Chloride	14,000	ND	ND	ND	ND	18	
Carbon Disulfide	6,200	ND	ND	ND	ND	ND	
Hexane	NS	ND	ND	ND	ND	29	
2-Butanone	13,000	ND	ND	ND	ND	8	
Ethanol	NS	ND	ND	ND	ND	19	
Acetone	180,000	ND	ND	ND	ND	51	
Benzene	1,300	ND	ND	ND	ND	ND	
1,2-Dichloropropane	NS	ND	ND	ND	ND	ND	
Tetrahydrofuran	30,000	ND	ND	ND	ND	ND	
2,2,4-Trimethylpentane	NS	ND	ND	ND	ND	ND	
Ethyl Benzene	54,000	ND	ND	ND	ND	ND	
m,p-Xylene	4,300	ND	ND	ND	ND	9	
o-Xylene	4,300	ND	ND	ND	ND	ND	
4-Ethyltoluene	NS	ND	ND	ND	ND	ND	
1,3,5-Trimethylbenzene	NS	ND	ND	ND	ND	ND	
1,2,4-Trimethylbenzene	NS	ND	ND	ND	ND	ND	
Heptane	210,000	ND	ND	ND	ND	ND	
Cyclohexane	NS	ND	ND	ND	ND	46	
TVOC		754	506	737	766	1.575	

See notes and abbreviations on last page.

G:\APROJECT\Spiegel\Sunnyside\Vapor Recovery System\System Status Reports\Air Emissions Regulatory Review\SGC_Table 3_090712.xlsx - Table 3

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Table 3. Summary of Total Influent Vapor Sample Analytical Results Compared to DAR-1 SGCs, United Stellar Industries, Planview, NY⁽¹⁾

Page 3 of 3

Notes and	Abbreviations:
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Bold NS	Compound detected above method detection limit. Guideline concentrations not specified in the NYSDEC DAR-1 AGC/SGC tables revised September 10, 2007.
TVOC	Total volatile organic compounds.
ug/m ³	Micrograms per cubic meter.
ND	Not detected above labortory detection limit.
1.	Samples were collected by O&M personnel on the dates shown and submitted to Air Toxics Laboratory in Folsom, CA for VOC analysis using USEPA Method TO-14 Direct Inject. Data presented in this table correspond to the period through May 2009.
2.	Table summarizes detected compounds only.
3.	An SGC was not provided in the DAR-1 AGC/SGC Tables, dated September 10, 2007. An interim SGC was developed based on in Section IV.A.2.b.1 of guidance provided

An SGC was not provided in the DAR-1 AGC/SGC Tables, dated September 10, 2007. An interim SGC was developed based on in Section IV.A.2.b.1 of guidance provided the New York State DAR-1 Guidelines for the Control of Toxic Ambient Air Contaminants, 1991 edition. Specifically for cis-1,2 dichloroethene, which is not defined as a high-toxicity compound, the interim SGC = (smaller of Time Weighted Average [TWA] =- Threshold Limit Value or TWA - Recommended Exposure Limit)/4.2 or 793,000 ug/m3 / 4.2 = 190,000 ug/m3.

 Table 4.
 Summary of Emission Rate Potential and Current Emission Rates Compared to 6 NYCRR Part 201 Major Stationary Source Defining Criteria, United Stellar Industries, Plainview, New York.

Analyte/Compound	CER	CER	ERP	ERP	Emissions Standard
	lb/hr ⁽¹⁾	tons/yr ⁽²⁾	lb/hr ⁽¹⁾	tons/yr ⁽²⁾	tons/yr
Nonattainment Area Specific Compounds					
Total Volatile Organic Compounds***	1.13E-03	4.94E-03	1.44E-02	6.32E-02	25
Hazardous Air Pollutants (HAPs)					
Freon 12	0.00E+00	0.00E+00	8.66E-05	3.79E-04	10
1,1,1-Trichloroethane	0.00E+00	0.00E+00	6.13E-04	2.68E-03	10
Chloroform	0.00E+00	0.00E+00	8.45E-05	3.70E-04	10
Trichloroethene	5.21E-04	2.28E-03	1.17E-02	5.15E-02	10
Tetrachloroethene	8.32E-06	3.64E-05	2.31E-04	1.01E-03	10
cis-1,2-Dichloroethene	4.99E-05	2.19E-04	2.86E-04	1.25E-03	10
1,1-Dichloroethane	0.00E+00	0.00E+00	3.49E-06	1.53E-05	10
Toluene	0.00E+00	0.00E+00	1.17E-04	5.14E-04	10
Methylene Chloride	0.00E+00	0.00E+00	1.54E-05	6.72E-05	10
Carbon Disulfide	0.00E+00	0.00E+00	1.67E-05	7.33E-05	10
Hexane	0.00E+00	0.00E+00	4.11E-05	1.80E-04	10
2-Butanone	0.00E+00	0.00E+00	8.62E-06	3.78E-05	10
Acetone	0.00E+00	0.00E+00	3.65E-05	1.60E-04	10
Benzene	0.00E+00	0.00E+00	1.06E-05	4.65E-05	10
1,2-Dichloropropane	0.00E+00	0.00E+00	9.12E-06	3.99E-05	10
2,2,4-Trimethylpentane	0.00E+00	0.00E+00	2.92E-06	1.28E-05	10
Ethyl Benzene	0.00E+00	0.00E+00	9.70E-07	4.25E-06	10
m,p-Xylene	0.00E+00	0.00E+00	6.44E-06	2.82E-05	10
o-Xylene	0.00E+00	0.00E+00	2.40E-06	1.05E-05	10
	Total HAPs =	2.54E-03	Total HAPs =	5.83E-02	25

(1) Emission rate calculated by multiplying the actual effluent constituent concentration by the stack air flow (on the May 28, 2009 sample date) in actual cubic feet per minute and the appropriate conversion factors.

(2) Emissions Rate in tons per year (tons/yr) assumes the system is operating 24 hrs per day, 365 days per year.

CER Current emissions rate (May 28, 2009)

ERP Maximum emission rate potential based on highest observed emission rate since system startup.

*** Total volatile organic compounds calculated from all volatile organic compounds detected on May 28, 2009.

ATTACHMENTS



Table A-1. Summary of SCREEN3 Model Input and Outputs, United Stellar Industries, Planview, NY

Parameters Da	ate Sampled:	6/26/2008	7/23/2008	8/28/2008	9/30/2008	10/30/2008	11/25/2008	1/14/2009	2/25/2009	3/31/2009	5/12/2009	5/28/2009
SCREEN3 Model Input												
Source Type		Point	Point	Point	Point	Point	Point	Point	Point	Point	Point	Point
Emission Rate (g/s)		1	1	1	1	1	1	1	1	1	1	1
Stack Height (ft)		12	12	12	12	12	12	12	12	12	12	12
Stack Height (m)		3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Stack Inside Diameter (m)		0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Air Flow Rate (scfm) (1, 9)		196	190	175	182	182	182	173	186	182	192	182
Air Flow Rate (acfm @ stack temp) (2, 9)		209	203	188	194	194	194	179	193	190	202	191
Stack Gas Exit Temperature (K) (1)		313	315	316	314	304	304	304	306	307	309	309
Ambient Air Temperature (K) ⁽³⁾		303	297	295	289	283	290	273	274	279	287	290
Receptor Height (m) (4)		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Urban/Rural		Urban	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Urban	Urban
Building Height (m)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Min Horizontal Bldg Dim (m)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Max Horizontal Bldg Dim (m)		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Consider Bldg Downwash?		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple/Complex Terrain Above Stack		Simple	Simple	Simple	Simple	Simple	Simple	Simple	Simple	Simple	Simple	Simple
Simple/Complex Terrain Above Stack Base		Simple	Simple	Simple	Simple	Simple	Simple	Simple	Simple	Simple	Simple	Simple
Meteorology		Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
Automated Distances Array		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Terrain Height Above Stack Base		0	0	0	0	0	0	0	0	0	0	0
SCREEN3 Model Output												
1-HR Max		12,640	13,180	14,360	13.990	42.070	42,200	15,220	14,190	14 340	13 330	14 120
Annualization Factor ⁽⁶⁾		0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Average Annual Concentration at Receptor Hei	ight (ug/m^3) ⁽	1,011.2	1,054.4	1,148.8	1,119,2	3.365.6	3.376.0	1,217.6	1,135,2	1 147 2	1 066 4	1 129 6
Distance To Max Concentration (m) ⁽⁸⁾	,	12	12	11	11	9	9	10	11	11	11	11

See notes last page.

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Table A-1. Summary of SCREEN3 Model Input and Outputs, United Stellar Industries, Planview, NY

Notes

- 1. The stack air flow rate (in scfm) and temperature were measured using a handheld thermo-anemometer. Values were measured immediately prior to where the effluent air stream enters the vapor-phase carbon unit.
- 2. The stack air flow rate at the stack temperature (in acfm) was calculated by dividing the stack air flow rate in scfm by the ratio of the standard temperature to the actual stack gas exit temperature.
- 3. The ambient temperature was recorded from the weather.com website for Plainview, New York. The mean actual temperature from the website was used in model calculation.
- 4. The receptor height corresponds to the average inhalation level.
- 5. SCREEN3 calculated constituent concentration at listed conditions at the specified inhalation level.
- 6. Conservative annualization factor of 0.08 was used in the calculations.
- 7. Average annual constituent concentration at the receptor height was calculated by multiplying the one hour maximum concentration by the annualization factor.
- 8. SCREEN3 calculated distance to the 1-hour maximum concentration.
- 9. Original flow rate parameter collected on 11/25/08 and 10/30/08 or was erroneous, data point reported is reading taken on 09/30/08.

g/s - Grams per second

ft - Feet m - Meters scfm - Standard cubic feet per minute acfm - Actual cubic feet per minute K - Kelvin µg/m³ - Micrograms per cubic meter

Attachment A-2. Summary of Annual Maximum Allowable Ambient Impact Calculations for Influent Vapor, Soil Vapor Recovery System, United Stellar Industries, Planview, NY

Constituent					Actual In	fluent Cond	entrations ⁽	¹⁾ (µg/m ³)			
	06/26/08	07/23/08	08/28/08	09/30/08	10/30/08	11/25/08	01/14/09	02/25/09	03/31/09	05/12/09	05/28/09
Freon 12	16	15	24	17	7	12	0	0	0	0	12
Freon 113	19	20	41	14	0	0	0	0	0	0	12
1,1,1-Trichloroethane	11	14	18	12	0	0	0	0	0	0	0
Chloroform	0	0	0	0	0	0	0	0	0	0	0
Trichloroethene	1,562	1,448	1,798	1,158	359	560	644	444	643	689	1,161
Tetrachloroethene	67	64	81	52	0	10	28	9	27	11	48
cis-1,2-Dichloroethene	102	100	186	149	61	92	82	53	67	66	80
1,1-Dichloroethane	0	0	0	0	0	0	0	0	0	0	0
Toluene	0	31	0	0	222	24	0	0	0	0	47
2-Propanol	0	0	0	0	0	0	0	0	0	0	35
Methylene Chloride	0	0	0	0	7	0	0	0	0	0	18
Carbon Disulfide	0	22	0	0	0	0	0	0	0	0	0
Hexane	0	0	0	0	0	0	0	0	0	0	29
2-Butanone	0	0	0	0	4	7	0	0	0	0	8
Ethanol	0	0	0	0	0	0	0	0	0	0	19
Acetone	0	0	0	15	0	15	0	0	0	0	51
Benzene	0	0	0	0	0	0	0	0	0	0	0
1,2-Dichloropropane	0	12	0	0	0	0	0	0	0	0	0
Tetrahydrofuran	0	0	0	0	16	26	0	0	0	0	0
2,2,4-Trimethylpentane	0	0	0	0	24	39	0	0	0	0	0
Ethyl Benzene	0	0	0	0	8	13	0	0	0	0	0
m,p-Xylene	0	0	0	0	36	58	0	0	0	0	9
o-Xylene	0	0	0	0	20	32	0	0	0	0	0
4-Ethyltoluene	0	0	0	0	20	33	0	0	0	0	0
1,3,5-Trimethylbenzene	0	0	0	0	15	24	0	0	0	0	0
1,2,4-Trimethylbenzene	0	0	0	0	24	39	0	0	0	0	0
Heptane	0	0	0	0	9	0	0	0	0	0	0
Cyclohexane	0	0	0	0	0	0	0	0	0	0	46

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Attachment A-2. Summary of Annual Maximum Allowable Ambient Impact Calculations for Influent Vapor, Soil Vapor Recovery System, United Stellar Industries, Planview, NY

Constituent	AGC ⁽²⁾	Annual Maximum Allowable Ambient Impact ⁽³⁾ (µg/m ³)										
Constituent	(µg/m ³)	06/26/08	07/23/08	08/28/08	09/30/08	10/30/08	11/25/08	01/14/09	02/25/09	03/31/09	05/12/09	05/28/09
Freon 12	12,000	1.20E+08	1.19E+08	1.18E+08	1.17E+08	3.89E+07	3.88E+07	1.17E+08	1.16E+08	1.17E+08	1.18E+08	1.18E+08
Freon 113	180,000	1.80E+09	1.78E+09	1.77E+09	1.76E+09	5.84E+08	5.82E+08	1.75E+09	1.74E+09	1.75E+09	1.77E+09	1.77E+09
1,1,1-Trichloroethane	1,000	1.00E+07	9.90E+06	9.81E+06	9.76E+06	3.25E+06	3.24E+06	9.72E+06	9.67E+06	9.72E+06	9.84E+06	9.82E+06
Chloroform	0.04	4.31E+02	4.26E+02	4.22E+02	4.20E+02	1.40E+02	1.39E+02	4.18E+02	4.16E+02	4.18E+02	4.23E+02	4.22E+02
Trichloroethene	0.5	5.01E+03	4.95E+03	4.91E+03	4.88E+03	1.62E+03	1.62E+03	4.86E+03	4.84E+03	4.86E+03	4.92E+03	4.91E+03
Tetrachloroethene	1	1.00E+04	9.90E+03	9.81E+03	9.76E+03	3.25E+03	3.24E+03	9.72E+03	9.67E+03	9.72E+03	9.84E+03	9.82E+03
cis-1,2-Dichloroethene	63	6.32E+05	6.24E+05	6.18E+05	6.15E+05	2.04E+05	2.04E+05	6.12E+05	6.09E+05	6.12E+05	6.20E+05	6.19E+05
1,1-Dichloroethane	0.63	6.32E+03	6.24E+03	6.18E+03	6.15E+03	2.04E+03	2.04E+03	6.12E+03	6.09E+03	6.12E+03	6.20E+03	6.19E+03
Toluene	5,000	5.01E+07	4.95E+07	4.91E+07	4.88E+07	1.62E+07	1.62E+07	4.86E+07	4.84E+07	4.86E+07	4.92E+07	4.91E+07
2-Propanol	7,000	7.02E+07	6.93E+07	6.87E+07	6.83E+07	2.27E+07	2.26E+07	6.81E+07	6.77E+07	6.80E+07	6.89E+07	6.87E+07
Methylene Chloride	2.1	2.11E+04	2.08E+04	2.06E+04	2.05E+04	6.81E+03	6.79E+03	2.04E+04	2.03E+04	2.04E+04	2.07E+04	2.06E+04
Carbon Disulfide	700	7.02E+06	6.93E+06	6.87E+06	6.83E+06	2.27E+06	2.26E+06	6.81E+06	6.77E+06	6.80E+06	6.89E+06	6.87E+06
Hexane	700	7.02E+06	6.93E+06	6.87E+06	6.83E+06	2.27E+06	2.26E+06	6.81E+06	6.77E+06	6.80E+06	6.89E+06	6.87E+06
2-Butanone	5,000	5.01E+07	4.95E+07	4.91E+07	4.88E+07	1.62E+07	1.62E+07	4.86E+07	4.84E+07	4.86E+07	4.92E+07	4.91E+07
Ethanol	45,000	4.51E+08	4.45E+08	4.41E+08	4.39E+08	1.46E+08	1.46E+08	4.37E+08	4.35E+08	4.37E+08	4.43E+08	4.42E+08
Acetone	28,000	2.81E+08	2.77E+08	2.75E+08	2.73E+08	9.09E+07	9.06E+07	2.72E+08	2.71E+08	2.72E+08	2.75E+08	2.75E+08
Benzene	0.13	1.30E+03	1.29E+03	1.28E+03	1.27E+03	4.22E+02	4.21E+02	1.26E+03	1.26E+03	1.26E+03	1.28E+03	1.28E+03
1,2-Dichloropropane	× 4	4.01E+04	3.96E+04	3.92E+04	3.90E+04	1.30E+04	1.29E+04	3.89E+04	3.87E+04	3.89E+04	3.93E+04	3.93E+04
Tetrahydrofuran	350	3.51E+06	3.46E+06	3.43E+06	3.42E+06	1.14E+06	1.13E+06	3.40E+06	3.38E+06	3.40E+06	3.44E+06	3.44E+06
2,2,4-Trimethylpentane	3,300	3.31E+07	3.27E+07	3.24E+07	3.22E+07	1.07E+07	1.07E+07	3.21E+07	3.19E+07	3.21E+07	3.25E+07	3.24E+07
Ethyl Benzene	1,000	1.00E+07	9.90E+06	9.81E+06	9.76E+06	3.25E+06	3.24E+06	9.72E+06	9.67E+06	9.72E+06	9.84E+06	9.82E+06
m,p-Xylene	100	1.00E+06	9.90E+05	9.81E+05	9.76E+05	3.25E+05	3.24E+05	9.72E+05	9.67E+05	9.72E+05	9.84E+05	9.82E+05
o-Xylene	100	1.00E+06	9.90E+05	9.81E+05	9.76E+05	3.25E+05	3.24E+05	9.72E+05	9.67E+05	9.72E+05	9.84E+05	9.82E+05
4-Ethyltoluene	NS											
1,3,5-Trimethylbenzene	290	2.91E+06	2.87E+06	2.85E+06	2.83E+06	9.41E+05	9.38E+05	2.82E+06	2.80E+06	2.82E+06	2.85E+06	2.85E+06
1,2,4-Trimethylbenzene	290	2.91E+06	2.87E+06	2.85E+06	2.83E+06	9.41E+05	9.38E+05	2.82E+06	2.80E+06	2.82E+06	2.85E+06	2.85E+06
Heptane	3,900	3.91E+07	3.86E+07	3.83E+07	3.81E+07	1.27E+07	1.26E+07	3.79E+07	3.77E+07	3.79E+07	3.84E+07	3.83E+07
Cyclohexane	6,000	6.02E+07	5.94E+07	5.89E+07	5.86E+07	1.95E+07	1.94E+07	5.83E+07	5.80E+07	5.83E+07	5.90E+07	5.89E+07

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Attachment A-2. Summary of Annual Maximum Allowable Ambient Impact Calculations for Influent Vapor, Soil Vapor Recovery System, United Stellar Industries, Planview, NY

Constituent	Percent of Annual Maximum Allowable Ambient Impact ⁽⁴⁾										
	06/26/08	07/23/08	08/28/08	09/30/08	10/30/08	11/25/08	01/14/09	02/25/09	03/31/09	05/12/09	05/28/09
Freon 12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Freon 113	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1,1,1-Trichloroethane	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Chloroform	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Trichloroethene	31.16%	29.25%	36.65%	23.73%	22.12%	34.62%	13.25%	9.18%	13.23%	14.01%	23.64%
Tetrachloroethene	0.67%	0.65%	0.83%	0.53%	0.00%	0.31%	0.29%	0.09%	0.28%	0.11%	0.49%
cis-1,2-Dichloroethene	0.02%	0.02%	0.03%	0.02%	0.03%	0.05%	0.01%	0.01%	0.01%	0.01%	0.01%
1,1-Dichloroethane	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Toluene	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2-Propanol	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Methylene Chloride	0.00%	0.00%	0.00%	0.00%	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.09%
Carbon Disulfide	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hexane	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2-Butanone	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ethanol	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Acetone	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Benzene	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1,2-Dichloropropane	0.00%	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Tetrahydrofuran	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2,2,4-Trimethylpentane	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ethyl Benzene	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
m,p-Xylene	0.00%	0.00%	0.00%	0.00%	0.01%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%
o-Xylene	0.00%	0.00%	0.00%	0.00%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%
4-Ethyltoluene											
1,3,5-Trimethylbenzene	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1,2,4-Trimethylbenzene	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Heptane	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Cyclohexane	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

See notes on last page.

G:\APROJECT\Spiegel\Sunnyside\Vapor Recovery System\System Status Reports\Air Emissions Regulatory Review\Air Model Results_Influent Analysis_090712.xlsx - Appendix Table

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Attachment A-2. Summary of Annual Maximum Allowable Ambient Impact Calculations for Influent Vapor, Soil Vapor Recovery System, United Stellar Industries, Planview, NY

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Notes:

- 1. Actual effluent concentrations are analytical results from air samples collected on the dates shown.
- 2. AGC refers to the compound-specific annual guideline concentration per the NYSDEC DAR-1 AGC/SGC tables, revised September 10, 2007.
- 3. Annual Maximum Allowable Ambient Impacts were calculated by dividing the product of the annual guideline concentration of a constituent and the ratio of the SCREEN3 gas emission rate and the SCREEN 3 average annual concentration at receptor height by the air flow rate at the stack temperature and multiplying by the appropriate conversion factors.
- 4. Percent of Maximum Allowable Ambient Impact was calculated by dividing the actual effluent concentration by the Maximum Allowable Ambient Impact for a given monitoring event.

µg/m³ - Micrograms per cubic meter

- AGC Annual guideline concentration
- NS No standard provided in the NYSDEC DAR-1 AGC/SGC tables, revised September 10, 2007.
- -- Could not be calculated, no standard provided.