Record Keeping Guidance (1)

As the number of individual HAPS that could possibly be present in non-hazardous pesticide, non-hazardous coal tar and creosote and non-hazardous Group A, B, C, D and E Compound contaminated soils could be extremely large, record keeping to account for each individual HAP is overly burdensome. Furthermore, as pointed out in correspondence that Koogler & Associates provided to the Department in support of the request by Atlas to process non-hazardous pesticide contaminated soil, the potential for the emission rate of a single individual HAP in any contaminated soil to approach 10 tons per year is extremely remote. An exception to this is HCl that will be addressed as a separate issue.

As a result of this fact, Atlas will track only **total HAP** emissions from pesticide, creosote/coal tar and Group A, B, C, D and E Compound contaminated soils. This total is obtained by adding together the concentrations of each individual HAP reported on the pre-acceptance analysis forms required by Atlas for each job site. In the case of organic compounds in any type of soil listed by Trade Name (e.g., LACOLENE, KWIK DRI, HI-SOL, etc.) or mixed compounds (e.g. naptha), MSDSs will be obtained and individual HAPs accounted for. The mass of the **total HAPs** is calculated by multiplying the quantity of soil represented by the analyses by the sum of the reported individual HAP concentrations. These quantities are totaled on a monthly basis to provide a record of the **total HAPs** from pesticide, creosote/coal tar and Group A, B, C, D and E Compound contaminated soil input to the soil thermal treatment system. The emission rate of **total HAPs** is calculated by applying a 99 percent destruction efficiency to the HAPs input to the system. The monthly **total HAP** emission rates is combined to calculate a rolling 12-month **total HAP** emission rate.

The rolling 12-month **total HAP** emission rate is used for two purposes. First, it is used to provide assurance that the emission rate of no single HAP equaled or exceeded 10 tons per year. If the rolling 12-month **total HAP** emission rate reaches 4.4 tons per year, Atlas is required to go through their records and calculate rolling 12-month emission rates of individual HAPs to provide the Department with assurance that the emission rate of no single HAP from pesticide, creosote/coal tar and/or Group A, B, C, D and E Compound contaminated soil will equal or exceed 10 tons per year.

The second purpose that the rolling 12-month **total HAP** emission rate serves is an input to the calculation of the total of all HAP emissions from the facility. The total of all HAPS will include the **total HAP** emissions from pesticide, creosote/coal tar and Group A, B, C, D and E Compound contaminated soil, HCl emissions resulting from chlorine in all soil and fuel, and HAP emissions from TRPH contaminated soil.

The types of contaminated soils that can be processed at the Atlas facility and the contaminants that might be present are:

(1) A revision of a section of a letter from Koogler & Associates to FDEP dated December 15, 2000, which is referenced in Specific Condition 3.M. of current Atlas-Transoil Permit No. 0810067-010-AO.

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1. Pesticide Contaminated Soils - Contaminants could include individual organic HAPs from pesticides, individual HAPs and collective HAPs from TRPH contamination, and chlorides that could result in the emissions of HCl.

2. Virgin Petroleum Contaminated Soils - Contaminants associated with this type of contaminated soil are the individual and total HAPs associated with the TRPH contamination.

3. Used Oil Contaminated Soils - Contaminants would include HAPs associated with the TRPH contamination and halogens that could result in the emissions of HCl.

4. Creosote/Coal Tar Contaminated Soils - Contaminants could include individual HAPs from coal tar and/or creosote, TRPH contamination and/or chlorides.

5. Group A, B, C, D and E Compounds - Contaminants could include individual organic HAPs from specific compounds, individual HAPs and collective HAPs from TRPH contamination and possibly a very limited amount of compounds that could result in the emissions of HCl.

In addition to contaminants present in soils processed, there is a possibility of chlorides (halogens) being present in used oil fuel. These contaminants could result in the release of HCl emissions.

The record keeping spreadsheet tracks:

1. Calculate the emission rate of the maximum expected individual HAP from TRPH contamination for all soils processed. The emission rate of this maximum HAP emission will be calculated for each type of soil for each day. The daily emissions will be totaled to provide a monthly emission rate and monthly emission rates will be totaled to provide a rolling 12-month total emission rate of the maximum individual HAP emission associated with TRPH contamination. The emission rate of this HAP will not equal or exceed 10 tons per year.

2. Atlas has revised its record keeping spreadsheet to calculate the daily emission rate of **total HAPs** associated with TRPH contamination in each type of soil. These daily emission rates will be totaled to provide monthly emission rates and monthly emission rates will be totaled to provide a rolling 12-month emission rate of **total HAPs** associated with TRPH contamination for all soils combined.

3. The organic HAPs present in the pesticide, creosote/coal tar and Group A, B, C, D and E Compound contaminated soils will be totaled to yield **total organic HAPs** from each type of soil. Daily emission rates will be calculated for each type of soil processed and daily emissions will be totaled to provide monthly emission rates of **total organic HAPs** from all soils combined. The monthly emissions will

then be totaled to provide rolling 12-month emission rates of **total organic HAPs** from all soils combined.

To provide the Department will assurance that the emission rate of no single organic HAP equals or exceeds 10 tons per year, Atlas will go back through its records and calculate emission rates of individual organic HAPS if the **total organic HAP** emission rate from all soils exceeds 4.4 tons per year.

4. The Atlas record keeping spreadsheet calculates HCl emissions from chlorides in all types of soil and in used oil fuel on a daily basis. The daily emissions is totaled to provide monthly emissions of HCl and monthly emissions will be totaled to provide a rolling 12-month HCl emission rate. The emission rate of HCl will not exceed 10 tons per year.

5. To provide the Department with assurance that the **total HAP** emission rate does not equal or exceed 25 tons per year, the Atlas record keeping spreadsheet provides daily totals of HAP emissions resulting from TRPH contamination, organic HAPS in pesticide, creosote/coal tar and Group A, B, C, D and E Compound contaminated soil, and HCl emissions from soil and used oil fuel contaminants. The daily **total HAP** emission rates is totaled to provide monthly **total HAP** emission rates and the monthly **total HAP** emission rates are totaled to provide a rolling 12-month emission rate of **total HAPs** (from TRPH, organic HAPs and HCl).

The record keeping spreadsheet used by Atlas provides a record of the type of soil processed each day. If more than one type of contaminated soil is processed during a single day, multiple entries are provided for that day. As a result, daily emission rates of all HAPs (individual category and total HAPSs) will be calculated for each soil type. It should be noted, however, that no effort will be made to calculate total monthly or total rolling 12-month emissions of any HAP or HAP category from individual soil types. The HAP emission calculations will be provided for all soils collectively.

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