FLINT HILLS resources®

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North Pole, Alaska 99705
907.488.2741

CO-089-16

Via Email

April 27, 2016

Karin Hendrickson
Alaska Department of Environmental Conservation
1700 E. Bogard Road, Building B Suite 103
Wasilla, Alaska 99654

Subject: Integrated Pest Management Plan for Flint Hills Resources Alaska, LLC Anchorage Terminal Facility

Dear Ms. Hendrickson:

Please find attached a completed Integrated Pest Management Plan for the Flint Hills Resources Alaska, LLC (FHRA) Anchorage facility. FHRA plans to apply a plant herbicide to portions of our Anchorage Terminal located at 1076 Ocean Dock Rd in Anchorage. FHRA leases the terminal property from the Alaska Railroad and will be utilizing the same contractor as the railroad (Rumble Spray Inc.) to apply the herbicide.

If you have any questions please contact me at (907) 490-6217.

Sincerely,

Serena Lewellyn
Environmental
Flint Hills Resources Alaska. LLC

Enclosure: Integrated Pest Management Plan & Map

cc: Env. File: 2.A.10.N.Pesticide Permits.2016

Integrated Pest Management Plans

Integrated Pest Management (IPM) uses a wide range of pest control methods or tactics, rather than just relying on chemical controls. The goal of IPM is to maintain pest damage at acceptable levels, which usually does not require complete elimination of a pest. IPM follows a series of four steps to address pest problems:

1. Set Action Thresholds

Before taking any pest control actions, IPM users first set an action threshold — a pre-determined point at which pest control action will be taken. This threshold is often the level at which pests will become a health hazard, an economic threat, or simply cause an unacceptable level of damage. Finding a single pest does not always mean pest control is needed. An action threshold helps ensure that control measures are taken only when necessary.

2. Monitor and Identify Pests

Monitoring involves a regular and methodical procedure to quantify information needed to make sound pest management decisions. Accurately identifying pests will allow for effective controls, if necessary. The UAF Cooperative Extension Service can offer help in identifying pests. IPM users should monitor for the presence and concentration of pests in various locations at various times, as these levels can vary greatly.

3. Prevent Pests

To prevent pests from becoming a problem, IPM programs work to create unfavorable environments for pests to colonize, grow, and reproduce. Prevention for outdoor environments might include crop rotation, selecting pest-resistant varieties, or putting down physical barriers such as landscaping fabric. Indoor pest prevention might include good sanitation, removing debris, or sealing cracks and other entries into buildings.

4. Control

If action thresholds have been triggered and preventive methods are no longer effective, IPM programs then evaluate control methods to determine which would be most effective. IPM users must know which control methods are available, and should evaluate the benefits and risks of each. Non-chemical methods of controlling pests are often very effective. Some examples of non-chemical control methods include trapping, heat treatments, cutting or mowing, or cultivating soil. Chemical controls can be an effective part of IPM, but are just one of the many tools that may be used.

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Sample IPM Plan

The following pages provide an outline for developing an IPM Plan. It can be modified to meet the needs in various management areas and for various pests. The tables are filled in with example information in **gray** text. This information should be replaced with the correct information for your management area.

Integrated Pest Management Plan

IPM Plan Effective Dates:	May 2016 – May 2017
Management Area Name/Location:	Flint Hills Resources Alaska (FHRA), LLC - Anchorage Terminal
General Site Description:	Bulk Oil Storage Facility on state owned land/right of ways.
Land Uses:	Bulk Oil Storage Facility
Name of Person in Charge:	Pat Hallett
Certified Applicator Name(s):	(1) Ray Grooters
Certification Numbers:	(1) 9912-1606-9

1. Action Thresholds

Check the types or categories of pests that might present a problem or need to be controlled at this management site:

✓	Category
✓	**Vegetation**
	Insects
	Fungus
	Rodents
	Other (describe below)

For each pest category listed above, describe the level at which the pest becomes a problem which requires control measures to be taken.

Vegetation:

Flint Hills Resources Alaska, LLC (FHRA) owns and operates the bulk fuel storage facility located at 1076 Ocean Dock Road, Anchorage, Alaska; approximately one mile north of downtown Anchorage and one-half mile south of the Municipality of Anchorage (MOA) Petroleum, Oil and Lubricant (POL) dock.

Pesticide application is necessary for vegetation control in three tank farms (north, east and west), the asphalt loading area and the rail rack loading area (see attached map). These areas must be free of excessive vegetation per 18 AAC 75.075(c) & (g):

> *"A secondary containment system must be maintained free of debris, vegetation, excessive accumulated water, or other materials or conditions that might interfere with the effectiveness of the system; The owner or operator of rail tank car and tank truck loading areas and permanent unloading areas must ensure that those loading and unloading areas are maintained free of debris, vegetation excess accumulated water or other materials or conditions that might interfere with the effectiveness of the system".*

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2. Monitor and Identify Pests

How often will the management area be inspected for the presence of pests?

The rail rack, asphalt yard, tank farm and asphalt unloading areas are inspected daily and monthly for the presence of excessive vegetation growth.

Which locations will be inspected?

The rail rack, asphalt yard, tank farms and asphalt unloading spur locations. See attached map outlining the application zones.

What methods will be used for identifying and quantifying the presence of pests?

The presence of vegetation will be visually noted during monthly inspections. Vegetation growth must not interfere with the effectiveness of the secondary containment areas or encroach on the rail bed.

How will pest species be identified?

Vegetation types are identified as noxious/invasive weeds, moss, annual/perennial grasses and sedges.

Describe record keeping procedures:

Vegetation management records will be kept at the FHRA Anchorage Terminal and filed with the environmental files.

Monthly tank farm inspections will include the date, locations, and remarks concerning vegetation if it is excessive.

A record of each control applied will include the date, location, and details about the control that was applied.

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3. Prevent Pests

For each pest category listed under Section 1, describe preventative measures that will be taken:

Secondary containment areas in the east and west tank farms are lined with an impermeable liner covered by a layer of soil. The secondary containment areas are designed to contain any spill of product from the tanks. This design allows for the accumulation of water which can contribute to the growth of vegetation in these areas. As a preventative measure, water will be pumped out of the containment areas as required by 18AAC 75.075(c) & (d).

The rail rack areas consist of rail ballast and gravel. Using mechanical means to previously minimize the growth of vegetation in this area has led to the need for complete chemical control in these areas. No preventative measures are recommended.

Vegetation growth in the asphalt yard and loading areas could be minimized by the application of weed barriers. The amount of soil that would have to be removed in order to place a weed barrier is not practical. No preventative measures are recommended.

How often will preventative measures be applied?

Water will be pumped from the east and west containment areas when noted during daily inspections. Water will be pumped/drained from the areas in accordance with 18AAC 75.075(d).

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4. Control Measures

For each pest category listed under Section 1, list potential non-chemical control measures that may be used:

Mechanical Controls:	Weed trimming or hand cutting can be used in the rail rack, tank farms, asphalt yard and unloading areas. These methods can be performed throughout the summer if the vegetation growth is minimal.

For each pest category listed under Section 1, describe the characteristics needed in any chemical controls that may be used:

Vegetation: Product should be a post emergence, systemic herbicide which gives a broad-spectrum control of many annual and perennial weeds, woody brush, and small trees.

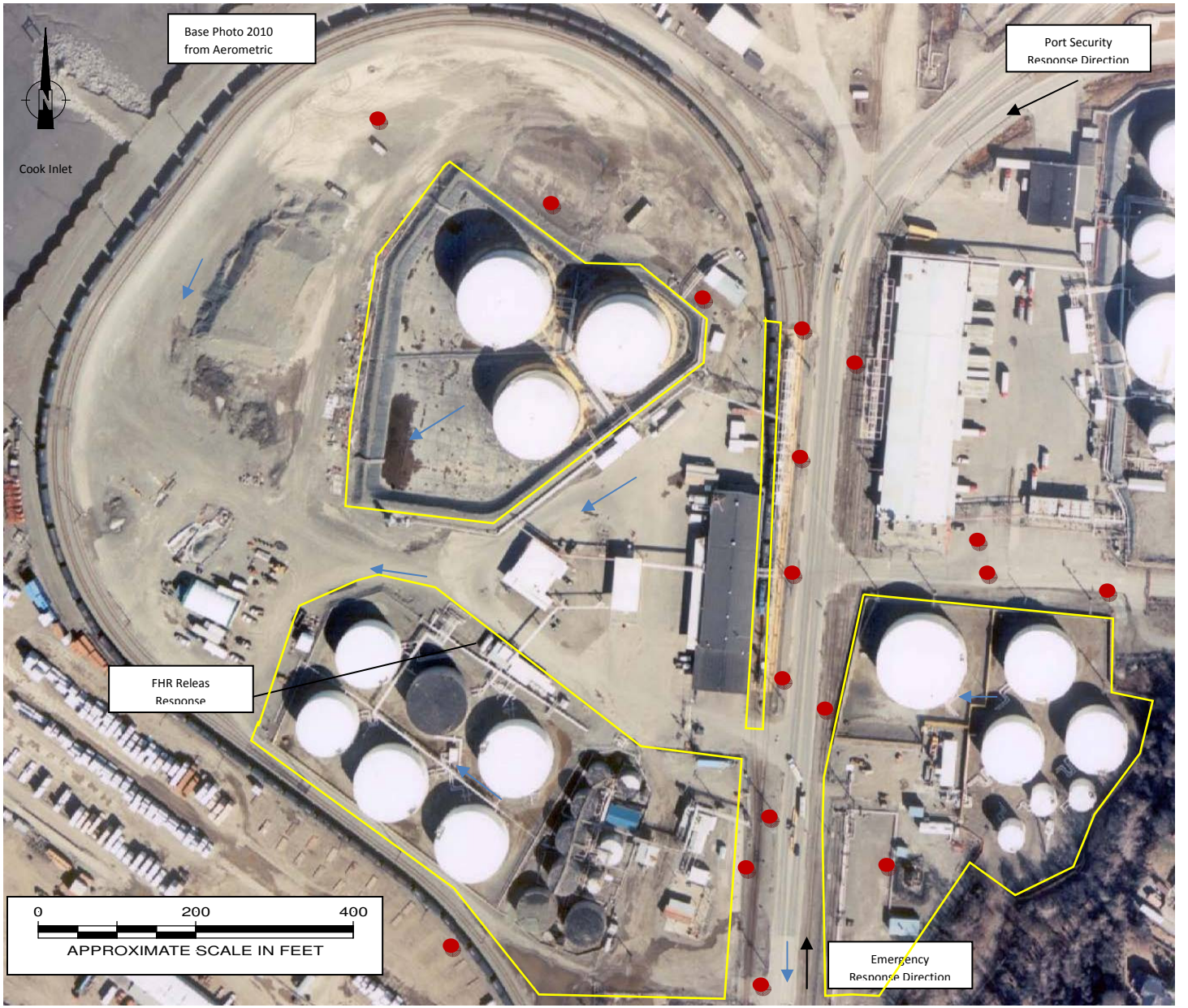
For each pest category listed under Section 1, list potential chemical controls that may be used:

Target Pest	Product Name	EPA Registration Number
Vegetation	Glyphosate 5.4	81927-8
Vegetation	SFM Extra ™	81927-5

Describe how treated areas will be re-inspected and evaluated for effectiveness of controls:

Following application of chemical controls, the areas will be monitored during daily rounds to determine the effectiveness of the application. If the chemical control is not effective, the certified applicator will be contacted to recommend modifications or additional controls.

**Application of chemical controls will not occur when standing water is present.*



Storm Sewer Inlets

Approximate Surface Drainage Direction

Application Areas