



DAVE S.  
Lury

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

### REGION 10

1200 Sixth Avenue, Suite 900  
Seattle, Washington 98101-3140

December 2009

## Federal Air Rules for Reservations (FARR)

In 2005, the Environmental Protection Agency (EPA) promulgated the Federal Air Rules for Reservations (FARR), a basic set of federal air rules that apply within the exterior boundaries of Indian Reservations in Idaho, Oregon and Washington. One of the rules specifically refers to construction and demolition projects carried out on any of these reservations.

*40 CFR §49.126 Rule for limiting fugitive particulate matter emissions* requires that any person who owns or operates a source of fugitive particulate emissions from construction or demolition activities take certain actions to limit those emissions during construction or demolition. The specific requirements for construction or demolition projects located on a reservation in Idaho, Oregon, or Washington include:

**1. Prepare a site-specific written plan:** A site-specific written plan must be prepared prior to commencing construction or demolition. The written plan must specify the reasonable precautions that will be taken and the procedures to be followed to prevent fugitive particulate matter emissions, including appropriate monitoring and recordkeeping.

An example of a written plan is enclosed which can be used as a guideline for the preparation of a specific plan for your site. Please also refer to the rule for additional examples of reasonable precautions.

**2. Implement your written plan:** All reasonable precautions must be taken to prevent fugitive particulate matter emissions and the construction or demolition activities must be conducted in a manner that minimizes fugitive particulate matter emissions.

**3. Conduct a survey and update your written plan:** If the construction or demolition activity will last longer than 30 days, the construction or demolition site must be surveyed within 30 days after commencing operation. The survey should take place during typical operating and meteorological conditions. The survey is to determine the sources of fugitive particulate matter emissions and the reasonable precautions that will be taken to prevent these emissions. The results of the survey must be documented and your written plan must be updated as necessary.

**4. Maintain your records:** Records that document the surveys and the reasonable precautions that were taken to prevent fugitive particulate matter emissions must be maintained for five years.

The complete version of the FARR is available on the FARR website at: <http://www.epa.gov/r10earth/farr.htm>. Rule 40 CFR §49.126 can be found on page 18100 of the document. Should you have any questions regarding the requirements of the rule or the preparation of a written plan, please contact Bill Todd at (206) 553-6914.



## **Sample Fugitive Particulate Matter Emissions Prevention Implementation Plan**

The following Sample Fugitive Particulate Matter Emissions Prevention Implementation Plan was developed by EPA to assist the regulated community in understanding what form these documents might take. Your facility may be able to comply with the requirements of 40 C.F.R. § 49.126 without adhering to the format of this sample document. The scope and content of your plan should take into account site specific factors as well as the regulatory requirements of 40 C.F.R. § 49.126.

**The information provided in this document is provided for compliance assistance purposes only and it may not address all of the legal requirements applicable to your facility. This document does not replace or amend any statutory or regulatory requirements that may apply to your facility. Following the information in this document will not shield a facility from enforcement. This document does not constitute rulemaking by the EPA and may not be relied on to create a substantive or procedural right or benefit enforceable at law or in equity, by any person.**

# **FUGITIVE PARTICULATE MATTER EMISSIONS PRE-DEMOLITION/CONSTRUCTION WALK THROUGH**

**CONCRETE CONSTRUCTION COMPANY  
IDAHO OPERATIONS  
2009**

Conducted by: Tony James - Site Planning Engineer  
Robert Brown – Site Safety Officer

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## **FUGITIVE PARTICULATE MATTER PRE-DEMOLITION/CONSTRUCTION WALK THROUGH**

### **CONCRETE CONSTRUCTION COMPANY**

**Work site address:**

**2460 West Sixth Avenue**

**Orofino ID**

**Office address:**

**1943 Third Avenue**

**Orofino ID**

### **INTRODUCTION**

Concrete Construction Company has recently been awarded a new contract on the Nez Perce Reservation involving the demolition of existing buildings and the erection of new offices and retail outlets. The work site address for this project is 2460 West Sixth Avenue, Orofino ID. Because this demolition and construction project is located on a reservation in Idaho, Oregon, or Washington, it is regulated by the Environmental Protection Agency (EPA). The company is subject to the requirements of 40 C.F.R. Part 49 and must prepare a site-specific written plan prior to commencing construction or demolition on any site located within the exterior boundaries of a reservation in Idaho, Oregon and Washington.

Mr. James performed a walk through of the site to assess the potential sources of fugitive particulate matter. The walk through will assist in the development of a written plan that must be completed prior to construction. Construction plans and other project documents will also be reviewed to help develop the written plan. The written plan will be re-evaluated if project plans change. If this project lasts more than 30 days, a survey will also be performed after commencing operation, as required under the FARR.

### **DESCRIPTION OF THE WALK THROUGH AND THE RESULTS**

Tony James – Site Planning Engineer and Robert Brown – Site Safety Officer conducted the walk through on 8/14/09 between 8:00 am and 10:00 am at the new construction site. The site is located at 2460 West Sixth Avenue, Orofino ID and consists of approximately two and a half acres with derelict buildings that had been constructed of timber with concrete foundations and metal roofs. The walk through consisted of walking around the site to identify the potential sources of fugitive particulate matter emissions during the demolition of the old buildings and the construction of the new buildings and roads.

## **Demolition Phase**

As the old buildings are torn down there will be potential fugitive emissions from the deposits of dirt and other materials on the metal roofs. In addition, the timber is old and dry which would be another potential source of fugitive emissions. The soil in the immediate area is very dry and dusty and would possibly create fugitive emissions when disturbed by removing the old concrete foundations. As demolition equipment and haul trucks move around the site they will likely create fugitive emissions.

### **Precautions:**

During demolition, water will be used to wet down the area that is being demolished prior to starting the demolition. During the demolition process a water spray will be used to minimize the fugitive particulate matter emissions. The ground will be sprayed with water either by water truck or some type of water spray to minimize fugitive particulate emissions from haul trucks and demolition equipment.

During the loading of the trucks with demolition debris a water spray will be used to minimize fugitive particulate matter emissions. The trucks will have tarpaulins installed to cover their loads prior to leaving the site to ensure there are no emissions while the trucks are in transit.

## **Construction Phase:**

The construction phase will consist of erecting four three-story buildings with retail stores on the ground floors and office space on the upper two floors. The buildings will be constructed of concrete with metal reinforcing bars, the foundations will be to a depth of four feet below ground level. New roads will have to be constructed within the site together with access roads from the main road. The roads will be constructed of crushed rock of varying sizes with an asphalt top layer. The above actions will create fugitive particulate matter emissions.

### **Precautions:**

During the excavation for the new foundations, water sprays will be used to suppress potential fugitive particulate matter from the dry dusty soil. The soil will be loaded into trucks and during this process water sprays will be used to keep the soil damp to minimize fugitive particulate emissions.

The trucks will also be covered with a tarpaulin prior to leaving the site to ensure there are no emissions during transit. Crushed rock will be brought on site and stored in piles for the road construction. These piles will be wetted down by water sprays to minimize fugitive particulate emissions. As the crushed rock is being laid down to form the road base it will be kept damp with water sprays to minimize fugitive particulate matter.

## **CONCRETE CONSTRUCTION COMPANY**

**Work site address:**  
**2460 West Sixth Avenue**  
**Orofino ID**

### **2009 Fugitive Particulate Matter Emissions Prevention Implementation Plan**

**The walk through conducted on 8/14/09 identified potential sources of fugitive particulate matter emissions from the work site as follows:**

#### **Demolition Phase:**

- a) Potential fugitive particulate emissions from the old buildings as they are demolished.
- b) Potential fugitive particulate emissions from the dry soil and old concrete foundations as they are being demolished.
- c) Potential fugitive particulate emissions from the demolition equipment and haul trucks as they move around the site.
- d) Potential fugitive particulate emissions from loaded trucks hauling demolition debris off site.

#### **Construction Phase:**

- a) Potential fugitive particulate emissions from the dry dusty soil during excavations for the new foundations.
- b) Potential fugitive particulate emissions from loaded trucks carrying foundation excavation material off site.
- c) Potential fugitive particulate matter emissions from crushed rock storage piles on site.
- d) Potential fugitive particulate matter emissions from road construction using crushed rock.
- e) Potential fugitive particulate matter emissions from trucks hauling in new construction material. There is also potential emissions from the construction material unloading, storage and construction activities.

**Procedures that the facility will perform to minimize fugitive particulate matter emissions.**

**Demolition Phase:**

- a) Water sprays will be used to minimize fugitive particulate matter emissions from the demolition of the old buildings.**
- b) A supervisor will monitor the demolition process and ensure that water sprays are turned on as required to minimize fugitive particulate matter emissions.
- c) A log of the dates and times the water sprays are turned on and off will be maintained.
- d) Water sprays will be used to minimize potential fugitive particulate emissions from the removal of the old concrete foundations.**
- e) A supervisor will monitor the removal of the old concrete foundations and ensure that the water sprays are turned on as required to minimize fugitive particulate matter emissions.
- f) A log of the dates and times the water sprays are turned on and off will be maintained.
- g) Either a water truck or water sprays will be used to suppress the dust and minimize fugitive particulate matter emission from the movement of haul trucks and demolition equipment.**
- h) A supervisor will monitor the movement of haul trucks and demolition equipment and ensure that either a water truck or water sprays are used as required to minimize fugitive particulate matter emissions.
- i) A log will be maintained of the dates and times the water sprays are turned on and off or the water truck is used.
- j) Tarpaulins will be fitted to trucks hauling demolition debris off site, to minimize potential fugitive particulate matter emissions.**
- k) A supervisor will ensure that all haul trucks leaving the site with demolition debris will be fitted with a tarpaulin to minimize fugitive particulate matter emissions.

**Note: All logs must be maintained for a period of five years.**

**Construction Phase:**

- a) Water sprays will be used to minimize fugitive particulate matter emissions from the soil excavation for the new foundations.**
- b) A supervisor will monitor the site excavations for the new foundations and ensure that the water sprays will be turned on as required to minimize fugitive particulate matter emissions.**
- c) A log of the dates and times the water is turned on and off will be maintained.**
- d) Tarpaulins will be fitted on the haul trucks carrying the excavated material from the foundation sites to minimize fugitive particulate matter emissions.**
- e) A supervisor will ensure that all haul trucks containing excavated material are fitted with tarpaulins to minimize particulate emissions.**
- f) Water sprays will be used to minimize fugitive particulate matter emissions from the crushed rock storage piles.**
- g) A supervisor will monitor the crushed rock storage piles and ensure that the water sprays are turned on as required to minimize fugitive particulate matter emissions.**
- h) A log of the date and times the water is turned on and off will be maintained.**
- i) Water sprays will be used to minimize fugitive dust from the crushed rock used in the construction of roads on this project.**
- j) A supervisor will ensure that the sprays are turned on as required to minimize fugitive particulate emissions.**
- k) A log of the dates and times the water sprays are turned on will be maintained.**

- l) Water sprays will be used to minimize fugitive particulate matter from the trucks carrying construction materials as required. Care will be taken when handling the construction material to minimize the emissions of fugitive particulate matter.
- m) A supervisor will ensure that the water sprays are turned on as required to minimize fugitive particulate matter. When necessary a supervisor will ensure that the construction material is suitably covered to minimize emissions of fugitive particulate matter emissions.
- m) A log of the dates and times that the water sprays are turned on will be kept.

**Note: All logs must be maintained for a period of five years.**