1.0 PURPOSE

1.1 To describe Walker Aggregates Inc. (HSC) commitment to controlling and reducing fugitive dust emissions from our operations at the Redford Pit and the Redford Pit RMC Plant.

1.2 This plan recognizes that there are both existing and proposed aggregate operations in the local area and is intended to minimize the potential for cumulative impacts through strict control of dust from operations at the Redford Pit and the Redford Pit RMC Plant.

1.3 This is based on the understanding that other aggregate operations are also required to mitigate dust and minimize the potential for adverse effects on nearby residences or other sensitive receptors.

2.0 BACKGROUND

2.1 Condition 5 of the Environmental Compliance Approval (Air) No. 7214-B2XHJL requires a Best Management Practices Plan to be implemented immediately and updated as necessary for the control of fugitive dust emissions to provide effective dust suppression measures to any potential sources of fugitive dust emissions resulting from the operation of the Facility. In addition, O. Reg 419 Point of Impingement (POI) standards govern fugitive dust emissions.

2.2 Condition 19 of the Schedule B: Operational Plan of the Aggregate Resource Act Site Plans for the Redford Pit requires that:

> "19. Dust control will be maintained through the use of a MOE approved dust suppressant or water as required.

2.3 The licence for the Redford Pit was issued in 2012, and the Application Standards for a Class "A", Category 3 licence included the following Prescribed Conditions:

- Dust will be mitigated on site.
- Water or another provincially approved dust suppressant will be applied to internal haul roads and processing areas as often as required to mitigate dust.

- Processing equipment will be equipped with dust suppressing or collection devices, where the equipment creates dust and is being operated within 300 metres of a sensitive receptor.

3.0 RESPONSIBILITIES

3.1 The Site Manager is responsible for ensuring the requirements of this plan, including the deployment, maintenance, monitoring and inspections of equipment and operations. To accomplish this, employees shall be trained in this plan.

3.2 The Site Manager, in conjunction with the Environmental Performance Department, is responsible for:

- 3.2.1 Providing training to staff in this plan;
- 3.2.2 Providing guidance on dust control measures; and
- 3.2.3 Maintaining this plan.

4.0 **IMPLEMENTATION AND TRAINING**

4.1 Dust control procedures as outlined in this document are currently in place at the Redford Pit and Redford Pit RMC Plant.

4.2 Redford Pit and Redford Pit RMC Site Manager has received training in the 2024 version of this procedure.

4.3 Redford Pit and Redford Pit RMC Site Manager shall review the policy annually.

5.0 SOURCES OF FUGITIVE DUST EMISSIONS AND POTENTIAL CAUSES

5.1 The following potential areas of fugitive dust emissions associated with the Redford Pit RMC have been identified as per Condition 5(1) of the ECA:

- 5.1.1 Delivery of cement and fly ash releases during silo loading;
- 5.1.2 Delivery and stockpiling of aggregates;
- 5.1.3 Transfer points when handling raw materials;
- 5.1.4 Loading and drawing down aggregate bins;
- 5.1.5 Aggregate and cement weighing;
- 5.1.6 Truck mixer loading and charging; and
- 5.1.7 Plant site equipment and vehicle traffic.

5.2 The following potential areas of fugitive dust emissions associated with the Redford Pit have been identified:

5.2.1 Overburden stripping and rehabilitation operations;
5.2.2 Extraction of sand and gravel from the working face by excavator;
5.2.3 Material handling operations (dumping material at the crushing, screening, washing & concrete plants, and loading highway trucks at the plant for shipping);
5.2.4 Equipment movement over unpaved surfaces (front-end loaders and highway trucks);
5.2.5 Material crushing, screening, and stockpiling; and,

5.3 General fugitive dust control procedures are outlined in Section 6. Specific control procedures for each identified potential fugitive dust source are outlined in Section 7.

5.4 Potential causes for high fugitive dust emissions and opacity (identified as per Condition 5(2):
5.4.1 Weather: windy or dry conditions can potentially cause high fugitive dust emissions from open areas including material loading and unloading sites, roadways and aggregate extraction, processing and stockpile areas; and
5.4.2 Mechanical disturbance of granular material can cause a significant amount of dust if not controlled. Mechanical disturbances can be in the form of vehicle traffic on paved or unpaved roads, the loading and unloading of materials and wind erosion of exposed stockpiles.

6.0 GENERAL CONTROL MEASURES

6.1 The site shall take the following general steps to control fugitive emissions:
6.1.1 Increase the application rate of dust suppression systems when necessary;
6.1.2 Adapt or reduce certain activities during windy/dry conditions;
6.1.3 Consider ceasing operation(s) when weather conditions make fugitive dust control activities ineffective;
6.1.4 Maintain vegetation around perimeter/inside property for dust screening (vegetation over 2 metres tall that provides year-round density is preferred);
6.1.5 Train employees in the importance of controlling fugitive emissions of dust; and
6.1.6 Maintain enclosures around aggregate processing equipment and drop areas where possible.

6.2 Controlled Use of Water as a Dust Suppressant

6.2.1 When water is used as a dust suppressant consider freezing conditions which can pose health and safety issues, as well as erosion from the flow of water from roadways and equipment which may cause damage to vegetation, clog drainage systems, create drag out or damage equipment or structures.

6.2.2 When using manufactured dust suppressant consider the following:

6.2.2.1 Chemical, biodegradable and water-soluble properties of the substance;

6.2.2.2 The effect the material may have on the existing road surface (i.e., making the asphalt cement in RAP soluble);

6.2.2.3 The effect of the suppressant on surrounding environment, including surface water, soil, vegetation, fish and animal habitats;

6.2.2.4 If the material is a Ministry of the Environment approved dust suppressant; and

6.2.2.5 The weather conditions expected during/after application to ensure effectiveness of the materials use and compatibility with environmentally sound practices.

7.0 **SPECIFIC SOURCE CONTROL MEASURES**

7.1 Minimizing Sources for Dust Emissions

7.1.1 The Site Manager's air quality management program should address the following objectives:

7.1.1.1 Identify all sources for dust emissions that are released into the atmosphere from both pit and RMC Plant operations;

7.1.1.2 Collect airborne particulates from RMC Plant point source dust emissions through air filtration mechanisms where practical;

7.1.1.3 Suppress the airborne particles from fugitive source dust emissions generated from both pit and RMC Plant operations; and

7.1.1.4 Consider local climatic conditions for both the pit and RMC Plant site, with consideration for prevailing wind directions, average daily temperatures and seasonal precipitation.

7.2 Aggregate Extraction Operations

7.2.1 Some alternatives for minimizing dust emissions from aggregate extraction operations:

7.2.1.1 Excavation and loading operations should be monitored hourly when all of the following criteria are met:

- Dry weather is anticipated; and,
- Winds are anticipated to be blowing towards the residence.

7.2.1.2 If visible dust is observed under these conditions, these operations shall be reduced, or additional mitigation measures shall be undertaken, such that visible dust is prevented from leaving the site.

7.3 Aggregate Processing Operations

7.3.1 Some alternatives for minimizing dust emissions from aggregate processing operations:

7.3.1.1 The processing plant shall be equipped with a water spray system. Spray bars shall be located at the crushers and screen.

7.3.1.2 Watering rate will be set as needed to prevent visible dust from leaving the site.

7.3.1.3 For screenings and other high-fines materials, stackers will be kept as close to the tops of stockpiles as is feasible, to achieve a drop height of approximately 1 metre or less.

7.4 Wind Erosion of Exposed Areas

7.4.1 Some alternatives for minimizing dust emissions from wind erosion of exposed areas include:

7.4.1.1 The amount of disturbed area will be kept to the minimum necessary for extraction to proceed in an efficient manner.

7.4.1.2 Progressive rehabilitation will be used to reduce erosion from previously extracted areas.

7.4.1.3 Stockpiles of finer-grained material will be located on the eastern side of the plant area so as to be sheltered from prevailing winds by other piles.

7.4.1.4 If visible fugitive dust associated with wind erosion of stockpiles or exposed areas is observed blowing towards nearby residences, water should be applied to the stockpiles and / or working face using a spray cannon mounted on the water truck, as quickly as possible.

7.5 RMC Plant Operations

7.5.1 The handling and transfer of aggregates and other raw material into or within the RMC plant can help minimize and eliminate batch plant dust emissions.

Some alternatives for minimizing dust emissions from batch plant operations:

7.5.1.1 Fine-tune the batching sequence to deliver a smooth, controlled flow of raw material into the plant mixer;

7.5.1.2 Consider covers or partial enclosures for elevated conveyors into plant; and

7.5.1.3 Enclose or shield aggregate storage areas and transfer points.

7.6 Traffic Areas

7.6.1 Some alternatives for minimizing dust emissions from plant site traffic:

7.6.1.1 Consider paving or hard surfacing of high traffic areas around yard or between the scale house and the site entrance;

7.6.1.2 Keep paved or hard surfaced areas clean;

7.6.1.3 Dust suppression using water or chemical dust suppressants, using the following guidance:

7.6.1.3.1 A water truck and sufficient water supply shall be used to apply water to all significant unpaved traffic areas.

7.6.1.3.2 The watering system shall be able to deliver the water evenly over the haul route surface and shall have the capacity to deploy water on all active haul routes at a rate of at least 1.5 L/m^2/hour.

7.6.1.3.3 The actual watering rate shall vary, depending on surface moisture conditions and traffic conditions.

7.6.1.3.4 A provincially approved dust suppressant may be used to augment watering. This suppressant may allow longer periods between watering.

7.6.1.4 A speed limit of 20 km/h shall be posted near the site entrance. Haul truck, highway truck and ready-mix concrete truck operators will be directed to observe the speed limit.

7.7 Aggregate Storage and Handling at the RMC Plant

7.7.1 The storage or handling of aggregates and any other raw materials around the plant site can help minimize and eliminate plant site dust emissions. Some alternatives for minimizing dust emissions from aggregates storage:

7.7.1.1 Consider higher moisture content in aggregates delivered to yard;

7.7.1.2 Partial enclosures or below grade pads for aggregate stockpile areas;

7.7.1.3 Minimize exposed surface area of aggregate stockpiles;

7.7.1.4 Minimize number of transfer points for raw materials;
7.7.1.5 Minimize drop heights for conveyors or hoppers; and
7.7.1.6 Consider fencing property boundaries using 2-metre high solid fence or vegetation.

7.8 Baghouses at the RMC Plant

7.8.1 Some best management practices for ensuring proper baghouse operations:
7.8.1.1 Pulse air, agitation mechanisms should be checked regularly;
7.8.1.2 Fabric bags should be fitted properly and inspected regularly;
7.8.1.3 Replace any damaged or torn fabric bags observed during inspections;
7.8.1.4 The silo pop valve should be checked regularly; and
7.8.1.5 Ensure all fabric bags or cartridge filters are replaced as outlined in manufacturer's instructions.