PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA
ACTION ITEM

Item No. 5d

Date of Meeting October 22, 2013

DATE: September 25, 2013

TO: Tay Yoshitani, Chief Executive Officer

FROM: John Christianson, General Manager Aviation Maintenance
Luisa Bangs, Senior Maintenance Manager Facilities, Fleet, Systems, and Grounds

SUBJECT: Purchase of Liquid and Solid Pavement Deicers for the Airport

Amount of This Request:	$3,000,000	**Source of Funds:**	Airport Development Fund
Est. Total Project Cost:	$3,000,000		
Est. State and Local Taxes:	$294,000	**Est. Jobs Created:**	N/A
Net Proceeds to the Port:	N/A		

ACTION REQUESTED

Request Commission authorization for the Chief Executive Officer to execute a five (5) year contract for the purchase of liquid and solid pavement deicing agents for use at Seattle Tacoma International Airport for an estimated total amount of $3,000,000.

SYNOPSIS

During snow and ice conditions, Aviation Maintenance actively employs a combination of snow removal equipment and deicing agents to maintain optimal landing surfaces for arriving and departing aircraft and for vehicle traffic utilizing Airport roadways. The demand for deicer changes from season to season based on the winter weather conditions experienced. During heavy storms, it is necessary to execute multiple short-notice/high-dollar value purchases of liquid or solid deicer to ensure timely delivery of these chemicals. Inability to execute these purchases could limit Aviation Maintenance's ability to service one or more runways and Airport roadways and parking facilities, resulting in closures.

Contract costs over this requested five year period are estimated at approximately $3,000,000; however, this amount could be exceeded if significant winter weather conditions are experienced over multiple years during the five year contract duration. The contract will be structured as a one-year agreement with four (4) annual renewal options to be exercised at the Port's discretion.

BACKGROUND

Aviation Maintenance is charged with executing the removal of snow and ice from runways, taxiways, and specified Airport roadways and parking facilities. Liquid (Potassium Acetate) and

Solid (Sodium Acetate) deicers are initially applied to the pavement surfaces in an "anti-icing" mode to prevent snow and ice from bonding to the pavement surfaces. These chemicals are also used for "deicing" if snow and ice has already bonded to the surface. In these situations, chemicals are applied in the "deicing" mode to break the bond of the snow and ice from the pavement surfaces in order to remove the contaminants mechanically with the Airport's snow removal equipment.

In June 2013, Aviation Maintenance submitted a procurement policy waiver for the purchase of liquid and solid pavement deicers that was approved in August 2013.

Budget Status and Source of Funds

Chemical purchases are initially budgeted for and handled through the Aviation Maintenance annual expense budget. If winter weather conditions are significant and exceed the Maintenance budget, the Airport strives to absorb the costs within contingency budget or through other budget savings.

STRATEGIES AND OBJECTIVES

Ensuring the Airport remains operational during winter weather events supports the Port's Century objective of meeting the region's air transportation needs at the Airport over the next 25 years. During adverse weather conditions (snow and ice storms), reliable access to and from this vital transportation hub is essential to public travel and regional commerce.

TRIPLE BOTTOM LINE

Economic Development

The use of deicing chemicals is necessary for the Airport to remain operational during winter weather conditions. Ensuring the Airport remains open and operational provides significant economic benefit to the Port, its customers, and business partners.

Environmental Responsibility

Deicing chemicals have the potential to affect water quality. These effects occur when deicing compounds degrade in receiving waters (streams and lakes). As they degrade, oxygen is consumed and oxygen depletion may stress, or if large enough, kill aquatic organisms. The ability of a compound to deplete oxygen in receiving waters is characterized by a parameter known as biochemical oxygen demand (BOD). The amount of BOD exerted by different deicing compounds varies greatly. The current material used, potassium acetate, is generally known to have low BOD (less impact on the environment).

The Department of Ecology required the Port to conduct extensive studies to determine if the Airport's deicing activities are impacting receiving waters. The studies concluded that the current materials and volumes applied have no discernible adverse impacts on the local streams. If a different deicing chemical were to be used, the Airport's National Pollutant Discharge Elimination System (NPDES) permit requires the Airport determine that it has equal or less BOD

than the material currently used and/or conduct another study to demonstrate it results in no discernible adverse impacts to the environment.
Water quality treatment and flow control is provided for all stormwater discharges within the Airport's NPDES permit boundary. Stormwater monitoring is conducted quarterly and all results are reviewed by Port Environmental to determine compliance with NPDES effluent limits with Discharge Monitoring Reports submitted quarterly to the Department of Ecology.

Community Benefits

Availability of deicer products enables the Airport to remain open and operational, supporting the Airport business partners and the travelling public.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1) – Adhere to purchasing limits as outlined in Resolution No. 3605, as amended by Resolution No. 3628. The CEO purchasing limit is not to exceed $300,000. This could result in depleting the chemical supplies and lead to closing airfield and roadway surfaces due to unsafe conditions if replacement chemicals are not obtained when needed.

Alternative 2) – Commission authorizes the Chief Executive Officer to execute a five (5) year contract for the purchase of liquid and solid pavement deicers for use at the Airport. The contract will be structured as a one-year contract with four (4) annual renewal options to be exercised at the Port's discretion. **This is the recommended alternative.**

ATTACHMENTS TO THIS REQUEST

- None

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

On December 15, 2009, the Commission authorized the Chief Executive Officer to exercise options and otherwise proceed with existing goods and purchased services agreements needing renewal prior to January 31, 2010, a total of six contracts including a $300,000 contract for snow and ice removal chemicals.