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COMMISSION

AGENDA MEMORANDUM Item No. 8e

ACTION ITEM Date of Meeting August 13, 2024

DATE : June 4, 2024

TO: Stephen P. Metruck, Executive Director

FROM: Brendalynn Taulelei, Senior Manager, Aviation Maintenance, Asset Management and Logistics

Tae Stacy, Manager, Aviation Maintenance Logistics

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

Amount of this request: \$5,000,000

Total estimated project cost: \$5,000,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to execute a contract for the purchase of liquid and solid pavement deicing agents, for use at Seattle-Tacoma International Airport (SEA) and waterfront locations during snow and ice weather conditions. The estimated value of this contract is \$ 5,000,000.

EXECUTIVE SUMMARY

Aviation Maintenance uses a combination of snow removal equipment and deicing agents during snow and ice conditions, to maintain surfaces for arriving and departing aircraft and vehicle traffic that uses the airport roadways. The deicing chemicals used on the airport runways and roadway surfaces have a low impact on the environment and approved by the Department of Ecology. The Port has a competition waiver (2018-005-PP) in place with supplier Cryotech, to manufacture and deliver these products until November 2028. In a typical snow season at the Seattle-Tacoma International airport, it is necessary to execute multiple high dollar-value purchases of liquid or solid deicer in a short notice to prevent impacts to Airport operations on the runways and roadways. Executing procurement of liquid and solid deicer will allow the Aviation Division to be well prepared for the winter weather conditions, and still provide operational airport to our passengers. Additionally, any contracts created under this request can be utilized by the Maritime Division for use on waterfront properties.

JUSTIFICATION

This contract authorization will allow Aviation Maintenance to keep the airport open for public travel and regional commerce by providing the deicer chemical needed for operations during a winter weather event. The Federal Aviation Administration Advisory Circular 150/5200-30D requires as follows: "If the runway pavement temperature is warm enough for snow to compact

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COMMISSION AGENDA – Action Item No. 8e Page 2 of 5

Meeting Date: August 13, 2024

and bond, or if freezing rain is forecasted, approved anti-icing chemicals and/or heated sand should be applied prior to the start of precipitation or as soon as precipitation starts." Heated sand is not utilized at the airport since it is less effective than deicer products, the sediment runoff impacts the performance of stormwater best management practices and requires a storage and warming facility. Deicer availability is critical during a winter weather event; therefore, the ability of contracted suppliers to provide timely delivery of deicer products when requested either before or during an active snow event prevents significant negative impacts to airport operations. If deicer is not available, snow and ice accumulation will lead to unsafe runway and roadway conditions, and an airport closure is likely.

Diversity in Contracting

Since only products manufactured by Cryotech are authorized for use on the airfield according to the environmental permit issued by the Washington State Department of Ecology there is no opportunity for sourcing this product from small, woman and minority business enterprise (WMBE) businesses.

Cryotech understands the Port's commitment to supporting WMBE businesses and is committed to utilizing WMBE businesses for shipping when practicable.

DETAILS

For almost 30 years, the Port of Seattle at Seattle-Tacoma International Airport has used liquid and solid runway and roadway deicing products manufactured by Cryotech Deicing Technologies when snow and ice control efforts are required. We currently have an approved contract (S-

00319560) that is currently in effect until November 24th 2024.

Deicing chemicals have the potential to impact water quality as they degrade and wash off with stormwater runoff. To address this concern, the Port uses acetate-based deicing products which have a lower biochemical oxygen demand as it degrades in the environment better than glycolbased fluids. In addition, over the past twenty years, Port Environmental has completed many studies demonstrating that Cryotech potassium acetate and sodium acetate products do not impact water quality. The study results have been reviewed and approved by the Department of Ecology.

The provider of the deicing chemicals must also have a proven track record and is expected to remain or be in business for the foreseeable future. In addition, the provider must have the required infrastructure, have demonstrated their local production and storage capabilities, and have the capacities to meet delivery requirements of these mission-critical chemicals even during significant regional snow and ice events.

Due to the environmental and operational reasons given, we received a competition waiver (2018-005-PP) for the procurement of the Cryotech deicer products E-36 ® liquid potassium acetate and NACC ® solid sodium acetate.

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COMMISSION AGENDA – Action Item No. 8e Page 3 of 5
Meeting Date: August 13, 2024

To ensure safe operating surfaces, control chemicals must be applied to prevent snow and ice from bonding to our pavement surfaces, or to melt and break the bond of ice that has adhered to the surfaces. To accomplish these requirements, Aviation Maintenance stocks both liquid potassium acetate and solid sodium acetate as snow and ice control chemicals at the airport.
Scope of Work

This contract is for the purchase of liquid potassium acetate and granular deicer sodium acetate to support runway and roadway deicing operations located at Seattle-Tacoma International Airport. The liquid deicing product shall be Potassium Acetate and must meet requirements of the Society for Automotive and Aerospace Engineers (SAE) Aerospace Material Specifications (AMS) 1435. The solid deicing product shall be Sodium Acetate and must meet requirements of SAE AMS 1431.

Schedule

The current contract expires in November 2024. Therefore, we are requesting authorization to execute a new contract to cover the 2024-2025 snow season by no later than end of October. The new contract shall be for a 5-year term.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Do not execute a new long-term contract for deicer but purchase deicer as needed from multiple suppliers during a snow event.

Cost Implications: Estimated contract amount - \$5 million dollars over 5 years.

Pros:

(1) Flexibility to go with any company who has product available and best current price.

Cons:

(1) Product quantity needed for a single event would exceed direct-buy purchase limit of \$50,000. A purchase of between \$50,000 and \$150,000 would require three quotes before issuing a purchase order. A purchase of over \$150,000 would require a formal bid, which would take longer. These processes take too long for such critical operations.

(2) Liquid deicing products outside of those already tested and approved from different companies may have different environmental impacts that are unknown to Port staff.

If we went with another product, we would have to update our NPDES (National Pollutant Discharge Elimination System) Permit and get approval from the Washington Department of Ecology. This process could take a year and a half, cost over \$300,000 for testing, and may result in other corrective actions having to be implemented, or possibly, our request may be denied outright.

(3) Liquid deicing products from different companies may react unpredictably when mixed in the same storage tanks. It is possible to create a transition plan to switch from one

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COMMISSION AGENDA – Action Item No. 8e Page 4 of 5
Meeting Date: August 13, 2024

product to another, but it would be dangerous to frequently add different products to the same tanks.

(4) Suppliers may not store enough quantities of the product locally unless obligated by contract requirements. Required quantities may not be available during an event, which is a great risk to airport operations.

(5) Suppliers would fill orders for customers who they have contracted obligations for before filling requisitions from the Port.

(6) The Port would likely have to pay a premium for delivery charges.

(7) Purchasing deicer without a contract leads to variable and unpredictable cost per gallon. This is not the recommended alternative.

Alternative 2 Execute a new contract for the purchase of liquid and solid pavement deicing agents, for use at SEA Airport and waterfront locations.

Cost Implications: The contract to purchase liquid and solid deicer products for the airport is estimated to cost \$5 million dollars in total over a five-year period. Over the past five snow seasons (between 2018 and 2023), we have spent over \$8 million dollars for deicer, but each year is highly variable and difficult to predict. Costs may range from \$300,000 to over \$1 million dollars in a single season.

Pros:

(1) This approach will allow us to take advantage of the favorable terms of the existing contract. The current contract would have language to allow us to negotiate a new contract.

(2) The contract may be able to specify the vendor's use small businesses in their supply chain.

Cons:

(1) Executing annual contracts would limit our ability to re-negotiate mid-year and take advantage of price drops due to market conditions.

(2) Locking into a price at the beginning of each season could subject us to disadvantageous timing related to price volatility.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

Annual Budget Status and Source of Funds

Annual expenditures under this contract for the airport will be charged to the Aviation Maintenance operating budget.

ATTACHMENTS TO THIS REQUEST

None

Template revised June 27, 2019 (Diversity in Contracting).

COMMISSION AGENDA – Action Item No. 8e Page 5 of 5

Meeting Date: August 13, 2024

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

November 8, 2022 Commission authorization for the Executive Director to execute contracts or amend existing contracts, for the purchase of liquid and solid pavement deicing agents, for use at Seattle-Tacoma International Airport and waterfront locations. Estimated value \$5,000,000.

November 12, 2019 Commission authorization for the Executive Director to execute a contract revision for the purchase of liquid and solid pavement deicing agents for use at Seattle-Tacoma International Airport. Revision added \$1,020,000.

September 11, 2018 Commission authorization for the Executive Director to execute a contract for the purchase of liquid and solid pavement deicing agents for use at Seattle - Tacoma International Airport. Estimated value \$2,200,000.

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