

PORT OF SEATTLE
MEMORANDUM

DATE: November 13, 2009

TO: Port Commission and Tay Yoshitani, CEO

FROM: Ralph Graves, Managing Director, Capital Development *ptb*
Mike Smith, Manager, Mechanical Systems, AV Facilities & Infrastructure

SUBJECT: Notification that the Port intends to execute three (3) Sole Source contracts and/or agreements with Siemens Building Technologies, Inc., for the following airport mechanical controls system projects: Steam Distribution System Upgrades (A Concourse); Sewer Pump Stations Upgrades (STIA); and, Central Mechanical Plant (CMP) Ethernet Control System Upgrade.

NOTIFICATION

The Port intends to execute three (3) Sole Source contracts/agreements for airport mechanical controls system projects including Steam Distribution upgrades (steam valves in A Concourse), Sewer Pump Stations upgrades (STIA), and CMP (HVAC) Ethernet Control System upgrades throughout the airport. The Port did a waiver for each project.

These 3 competitive waivers are for modifying a mechanical controls system called Direct Digital Controls (DDC) from Siemens Building Technologies. The combined estimated value is \$720,000.

This is justified under Resolution 3605, Section 6.5 Competition Waivers. This section reads, in part, "The CEO is authorized to approve competition waivers consistent with applicable federal and state laws and internal Port policies...".

The condition that applies here is:

Condition (ii) which states, "the only source for the service or product is proprietary in nature...". This applies here because the programming changes and system modifications related to these upgrades to Siemens Direct Digital Controls (DDC) proprietary system require factory- certified, technical expertise, with access to the system source codes.

Please see the 3 attached Siemens Building Technologies Inc. justification memos for additional details.

PORT OF SEATTLE

MEMORANDUM

DATE: October 8, 2009

TO: Ralph Graves, Managing Director, CDD
Craig Watson, General Counsel
Nora Huey, Director, CPO
Paul Powell, Sr. Manager, CPO Construction *no*

FROM: Mike Smith, Manager, Mechanical Systems Aviation Facilities and Infrastructure

SUBJECT: Sole Manufacturer Justification – Siemens Building Technologies Direct Digital Controls (DDC) for Project 103703 Sea-Tac International Airport Sewer Pump Station Upgrade.

1. How was it determined that Siemens DDC is a sole manufacturer?

Siemens Direct Digital Controls (DDC) system was the low bidder on the original Concourse A expansion in the 1980s. Siemens was also the low bidder on the 1991 Concourse B, C and D Upgrade project. The above projects were “open” bids with no sole source requirements. The DDC system has been expanded after these projects in a “Sole Source” capacity. The DDC System operates the HVAC, water, smoke control, train ventilation, exhaust, heating, cooling, steam, gas, air, sanitary pumping, industrial waste, and other systems. In 2008, Siemens was the low bidder on the Rental Car Facility Project, designed as a stand-alone DDC system that was “open” bid with no sole source requirements. The system has yet to be installed as construction is currently underway.

The existing system at the Airport contains over 75,000 control points and 15,000 devices controlled by 180 Master Building Controllers (MBC). The DDC system is integrated into the infrastructure of the Airport and projects will connect and add to the existing infrastructure. The DDC system ensures that infrastructure operates as intended, including infrastructure that protects life safety, prevents release of products into the environment, continued Airport Operations including the terminal and airfield, occupant comfort, critical environment exhaust, utility metering, master planning, troubleshooting, and maintenance.

There are multiple existing control systems that service facilities at the Seaport, the largest of which is Siemens DDC system at Pier 69 which is intended to service multiple facilities within that particular area.

2. Why is no other design suitable for your requirements?

DDC systems transmit and receive signals using a specific language, frequency and timing in order to control and monitor electrical and mechanical equipment. If another design were introduced into the existing system, it would be analogous to having an English-speaking network try to integrate a Spanish language component. Obviously, an interpreter becomes necessary to integrate signals to and from the Spanish language portion. Since the Life Safety duties of the DDC System require data reliability and speed in order to function, delays and mistakes caused by the attempt to integrate separate languages not only result in excessive costs

in hardware, software and training, they also result in lack of Code compliance (speed of response for the Smoke Control System), and potential human life endangerment.

3. Are there unique skills or knowledge required for Siemens DDC systems?

Port Maintenance, Facilities, Operations, and Fire Department have integrated the Siemens DDC system into everyday operating and maintenance activities. The system is utilized for controlling and/or monitoring the cooling, heating, air handlers, pumps, air conditioners, boilers, chillers, heat exchangers, smoke control life safety systems, general exhaust, kitchen exhaust systems, welding exhaust systems, critical operations exhaust systems, parking garage exhaust systems, natural gas systems, domestic water systems, airfield lighting vaults, emergency generators, storm water pumping, sanitary sewer pumping, industrial waste pumping, utility metering system, pneumatic and other systems. The operating engineers at the airport utilize over 1,250 graphic display screens within the system every day. The operating engineers have attended a minimum of 40 hours training just to begin operating the system and further hours of advanced training has been required for proficient operation of the system. Integration of an additional system would require a significant investment in training and everyday use in order to gain the magnitude of knowledge the maintenance department possesses in this system.

4. Mandate from Federal or State Government required.

No

5. What are the consequences of not approving the sole manufacturer request?

Costs will go up in order to perform the activities presently controlled and monitored by the Siemens DDC system. Systems normally controlled by the DDC may fail to operate due to the training gaps and "language" inoperability. Additional equipment, software programs, training, and knowledge of new interconnection systems would be required. The interconnection systems may also be proprietary and reliability risk may be integrated into the existing DDC systems. The added costs and FTE allocated time has not been included in the Aviation Maintenance Budget.

The infrastructure is required to operate 24 hours a day 365 days a year with absolute reliability. The existing DDC system has been operating at the Airport continuously since the 1980's and has proven to be robust and dependable, ensuring that the Airport operates as intended for the general population as well as the internal operations of the systems it controls and monitors. Without this reliability, the infrastructure is at risk of not protecting life safety, the environment, and critical operations that would ultimately leave the community and region at risk.

6. What negative consequences will result by formally bidding this requirement?

The DDC system has been open bid multiple times in the past. The Siemens DDC system has proven to be consistently economical in comparison to other DDC systems that routinely bid this scope of work. A formal bid by another DDC system would be required to be integrated into the existing DDC system and show the same robust proven reliability that the existing DDC system possesses.

A highly developed technical specification that requires Siemens DDC system compatibility and components would be required. Language, timing, transmission rates and frequencies would be necessary components of the specification. This specification would only be attainable by Siemens Building Technologies. This approach could possibly result in complaints by competing manufacturers that the Port specification represents essentially a de facto sole manufacturer. For this reason, it is preferable to formally request sole manufacturer approval in advance. In addition, every effort will be made to provide competition for components within the specification wherever possible, providing a better cost to the Port of Seattle without compromising quality or reliability. Examples would include sensors, enclosures, flow meters, variable frequency drives, controllers, actuators, etc.

7. What is the estimated cost of this request?

The project is estimated at \$550,000 for the necessary upgrade. The portion requiring Sole Source justification is approximately \$400,000.

8. How was this cost determined to be reasonable?

The cost of the work is reviewed and estimated independently for each project as if it were bid to a minimum of three vendors. The estimate is then compared to the bid amount to determine that it is reasonable. The scope is always determined prior to the final design and expected outcomes are evaluated. The scope generally consists of providing and installing programming, points, wiring, and hardware expected for the system. Furthermore, the numbers of controlled devices and the type of monitoring and control desired dictate the system complexity.

9. Is this request a one time requirement?

Port staff intends to continue to ask that Siemens Building Technologies Direct Digital Controls to be the sole manufacturer of the DDC system on future projects. Similar requests have been approved in the past.

10. What are other costs incurred from this request?


This request should not incur any other costs.

11. What other methods of fulfilling this requirement have been explored?

None, except those as mentioned above.

12. Certification that the preparer(s) making this recommendation to the Port Project Manager has/have no financial or other beneficial interest in Siemens Building Technologies Direct Digital Controls products?

The Port of Seattle (Employees listed below) warrant and covenant that they have no direct or indirect pecuniary or proprietary interest, and that they shall not acquire any such interest which conflicts in any manner or degree with the performances of the work and services required to complete this request. In the event that the Port or any of its Consultants or its agents, employees or representatives hereafter acquires such a conflict of interest, the Port shall immediately disclose such interest to the Port of Seattle Legal Department, and take action immediately to eliminate the conflict. In addition, with my signature below I further state that I am not nor will I within 18 months of this justification seek employment with this firm. I hold that the information provided is true and complete to the best of my knowledge under the penalties of perjury in the State of Washington.



Mike Smith
Manager Mechanical Infrastructure Systems
Facilities & Infrastructure
SeaTac International Airport

10.8.09
Date




Stuart Mathews
Mechanical Maintenance Senior Manager
Aviation Maintenance
SeaTac International Airport

10/9/2009
Date




Nora Huey
Director Central Procurement Office

10/21/09
Date



Craig Watson
General Counsel

10/26/09
Date



Approved: Ralph Grave

10-28-09
Date

This new system needs to work with the current Sumas DPC system

PORT OF SEATTLE

MEMORANDUM

DATE: October 8, 2009

TO: Ralph Graves, Managing Director, CDD
Craig Watson, General Counsel
Nora Huey, Director CPO
Paul Powell, Sr. Manager, CPO Construction *mp*

FROM: Mike Smith, Manager, Mechanical Systems Aviation Facilities and Infrastructure

SUBJECT: Sole Manufacturer Justification – Siemens Building Technologies Direct Digital Controls (DDC) for Project 103884 Steam Distribution Systems Upgrade.

1. How was it determined that Siemens DDC is a sole manufacturer?

Siemens Direct Digital Controls (DDC) system was the low bidder on the original Concourse A expansion in the 1980s. Siemens was also the low bidder on the 1991 Concourse B, C and D Upgrade project. The above projects were “open” bids with no sole source requirements. The DDC system has been expanded after these projects in a “Sole Source” capacity. The DDC System operates the HVAC, water, smoke control, train ventilation, exhaust, heating, cooling, steam, gas, air, sanitary pumping, industrial waste, and other systems. In 2008, Siemens was the low bidder on the Rental Car Facility Project, designed as a stand-alone DDC system that was “open” bid with no sole source requirements. The system has yet to be installed as construction is currently underway.

The existing system at the Airport contains over 75,000 control points and 15,000 devices controlled by 180 Master Building Controllers (MBC). The DDC system is integrated into the infrastructure of the Airport and projects will connect and add to the existing infrastructure. The DDC system ensures that infrastructure operates as intended, including infrastructure that protects life safety, prevents release of products into the environment, continued Airport Operations including the terminal and airfield, occupant comfort, critical environment exhaust, utility metering, master planning, troubleshooting, and maintenance.

There are multiple existing control systems that service facilities at the Seaport, the largest of which is Siemens DDC system at Pier 69 which is intended to service multiple facilities within that particular area.

2. Why is no other design suitable for your requirements?

DDC systems transmit and receive signals using a specific language, frequency and timing in order to control and monitor electrical and mechanical equipment. If another design were introduced into the existing system, it would be analogous to having an English-speaking network try to integrate a Spanish language component. Obviously, an interpreter becomes necessary to integrate signals to and from the Spanish language portion. Since the Life Safety duties of the DDC System require data reliability and speed in order to function, delays and mistakes caused by the attempt to integrate separate languages not only result in excessive costs

in hardware, software and training, they also result in lack of Code compliance (speed of response for the Smoke Control System), and potential human life endangerment.

3. Are there unique skills or knowledge required for Siemens DDC systems?

Port Maintenance, Facilities, Operations, and Fire Department have integrated the Siemens DDC system into everyday operating and maintenance activities. The system is utilized for controlling and/or monitoring the cooling, heating, air handlers, pumps, air conditioners, boilers, chillers, heat exchangers, smoke control life safety systems, general exhaust, kitchen exhaust systems, welding exhaust systems, critical operations exhaust systems, parking garage exhaust systems, natural gas systems, domestic water systems, airfield lighting vaults, emergency generators, storm water pumping, sanitary sewer pumping, industrial waste pumping, utility metering system, pneumatic and other systems. The operating engineers at the airport utilize over 1,250 graphic display screens within the system every day. The operating engineers have attended a minimum of 40 hours training just to begin operating the system and further hours of advanced training has been required for proficient operation of the system. Integration of an additional system would require a significant investment in training and everyday use in order to gain the magnitude of knowledge the maintenance department possesses in this system.

4. Mandate from Federal or State Government required.

No

5. What are the consequences of not approving the sole manufacturer request?

Costs will go up in order to perform the activities presently controlled and monitored by the Siemens DDC system. Systems normally controlled by the DDC may fail to operate due to the training gaps and "language" inoperability. Additional equipment, software programs, training, and knowledge of new interconnection systems would be required. The interconnection systems may also be proprietary and reliability risk may be integrated into the existing DDC systems. The added costs and FTE allocated time has not been included in the Aviation Maintenance Budget.

The infrastructure is required to operate 24 hours a day 365 days a year with absolute reliability. The existing DDC system has been operating at the Airport continuously since the 1980's and has proven to be robust and dependable, ensuring that the Airport operates as intended for the general population as well as the internal operations of the systems it controls and monitors. Without this reliability, the infrastructure is at risk of not protecting life safety, the environment, and critical operations that would ultimately leave the community and region at risk.

6. What negative consequences will result by formally bidding this requirement?

The DDC system has been open bid multiple times in the past. The Siemens DDC system has proven to be consistently economical in comparison to other DDC systems that routinely bid this scope of work. A formal bid by another DDC system would be required to be integrated into the existing DDC system and show the same robust proven reliability that the existing DDC system possesses.

A highly developed technical specification that requires Siemens DDC system compatibility and components would be required. Language, timing, transmission rates and frequencies would be necessary components of the specification. This specification would only be attainable by Siemens Building Technologies. This approach could possibly result in complaints by competing manufacturers that the Port specification represents essentially a de facto sole manufacturer. For this reason, it is preferable to formally request sole manufacturer approval in advance. In addition, every effort will be made to provide competition for components within the specification wherever possible, providing a better cost to the Port of Seattle without compromising quality or reliability. Examples would include sensors, enclosures, flow meters, variable frequency drives, controllers, actuators, etc.

7. What is the estimated cost of this request?

The project is estimated at \$140,000 for the necessary upgrade. The portion requiring Sole Source justification is approximately \$40,000.

8. How was this cost determined to be reasonable?

The cost of the work is reviewed and estimated independently for each project as if it were bid to a minimum of three vendors. The estimate is then compared to the bid amount to determine that it is reasonable. The scope is always determined prior to the final design and expected outcomes are evaluated. The scope generally consists of providing and installing programming, points, wiring, and hardware expected for the system. Furthermore, the numbers of controlled devices and the type of monitoring and control desired dictate the system complexity.

9. Is this request a one time requirement?

Port staff intends to continue to ask that Siemens Building Technologies Direct Digital Controls to be the sole manufacturer of the DDC system on future projects. Similar requests have been approved in the past.

10. What are other costs incurred from this request?

This request should not incur any other costs.

11. What other methods of fulfilling this requirement have been explored?

None, except those as mentioned above.

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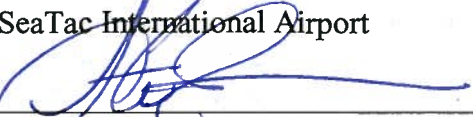
12. Certification that the preparer(s) making this recommendation to the Port Project Manager has/have no financial or other beneficial interest in Siemens Building Technologies Direct Digital Controls products?

The Port of Seattle (Employees listed below) warrant and covenant that they have no direct or indirect pecuniary or proprietary interest, and that they shall not acquire any such interest which conflicts in any manner or degree with the performances of the work and services required to complete this request. In the event that the Port or any of its Consultants or its agents, employees or representatives hereafter acquires such a conflict of interest, the Port shall immediately disclose such interest to the Port of Seattle Legal Department, and take action immediately to eliminate the conflict. In addition, with my signature below I further state that I am not nor will I within 18 months of this justification seek employment with this firm. I hold that the information provided is true and complete to the best of my knowledge under the penalties of perjury in the State of Washington.



Mike Smith
Manager Mechanical Infrastructure Systems
Facilities & Infrastructure
SeaTac International Airport

10.8.09
Date



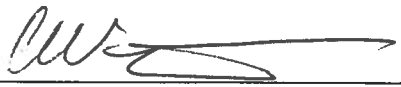
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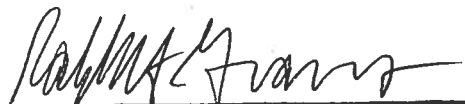
Nora Huey
Director Central Procurement Office

10/21/09
Date



Craig Watson
General Counsel

10/26/09
Date



Ralph Graves

10-28-09
Date


Approve
by

This ^{new} system needs to work with the current Siemens
DDS system

PORT OF SEATTLE

MEMORANDUM

DATE: October 8, 2009

TO: Ralph Graves, Managing Director CDD
Craig Watson, General Counsel
Nora Huey, Director CPO
Paul Powell, Sr. Manager, CPO Construction 

FROM: Mike Smith, Manager, Mechanical Systems Aviation Facilities and Infrastructure

SUBJECT: Sole Manufacturer Justification – Siemens Building Technologies Direct Digital Controls (DDC) for Project 103547 CMP Ethernet Control System Upgrade.

1. How was it determined that Siemens DDC is a sole manufacturer?

Siemens Direct Digital Controls (DDC) system was the low bidder on the original Concourse A expansion in the 1980s. Siemens was also the low bidder on the 1991 Concourse B, C and D Upgrade project. The above projects were “open” bids with no sole source requirements. The DDC system has been expanded after these projects in a “Sole Source” capacity. The DDC System operates the HVAC, water, smoke control, train ventilation, exhaust, heating, cooling, steam, gas, air, sanitary pumping, industrial waste, and other systems. In 2008, Siemens was the low bidder on the Rental Car Facility Project, designed as a stand-alone DDC system that was “open” bid with no sole source requirements. The system has yet to be installed as construction is currently underway.

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4. Mandate from Federal or State Government required.

No

5. What are the consequences of not approving the sole manufacturer request?

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6. What negative consequences will result by formally bidding this requirement?

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A highly developed technical specification that requires Siemens DDC system compatibility and components would be required. Language, timing, transmission rates and frequencies would be necessary components of the specification. This specification would only be attainable by Siemens Building Technologies. This approach could possibly result in complaints by competing manufacturers that the Port specification represents essentially a de facto sole manufacturer. For this reason, it is preferable to formally request sole manufacturer approval in advance. In addition, every effort will be made to provide competition for components within the specification wherever possible, providing a better cost to the Port of Seattle without compromising quality or reliability. Examples would include sensors, enclosures, flow meters, variable frequency drives, controllers, actuators, etc.

7. What is the estimated cost of this request?

The project is estimated at \$150,000 for the necessary upgrade.

8. How was this cost determined to be reasonable?

The cost of the work is reviewed and estimated independently for each project as if it were bid to a minimum of three vendors. The estimate is then compared to the bid amount to determine that it is reasonable. The scope is always determined prior to the final design and expected outcomes are evaluated. The scope generally consists of providing and installing programming, points, wiring, and hardware expected for the system. Furthermore, the numbers of controlled devices and the type of monitoring and control desired dictate the system complexity.

9. Is this request a one time requirement?

Port staff intends to continue to ask that Siemens Building Technologies Direct Digital Controls to be the sole manufacturer of the DDC system on future projects. Similar requests have been approved in the past.

10. What are other costs incurred from this request?

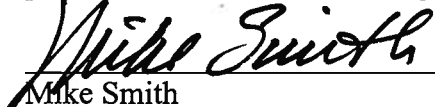
This request should not incur any other costs.

11. What other methods of fulfilling this requirement have been explored?

None, except those as mentioned above.

12. Certification that the preparer(s) making this recommendation to the Port Project Manager has/have no financial or other beneficial interest in Siemens Building Technologies Direct Digital Controls products?

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Mike Smith
Manager Mechanical Infrastructure Systems
Facilities & Infrastructure
SeaTac International Airport

10.8.09
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Stuart Mathews
Mechanical Maintenance Senior Manager
Aviation Maintenance
SeaTac International Airport

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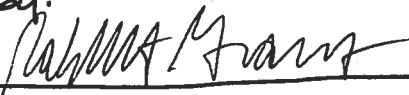
Nora Huey
Director Central Procurement Office

10/21/09
Date



Craig Watson
General Counsel

10/26/09
Date

Approved by:


Ralph Graves

10-28-09
Date

This system needs to work with the current Siemens DDC system.