CVMIC
2015 SIGNIFICANT PROGRAM AWARD
ENTRY FORM

Instructions: Please fill out this form completely (type or print). Only complete entries will be considered. Enclose any supporting materials/documentation with this entry (forms, manuals, articles, videos, etc.). Provide complete answers to all questions. Also, provide specific data where appropriate. Entries must be received in the CVMIC office by Friday, July 10, 2015. Programs that have previously won a CVMIC Significant Program Award are not eligible. The judge's decisions are final. **Note – as a condition of submission you and your community agree to provide copies of all program materials and agree to the unrestricted use of the program and program materials by other CVMIC members. Any modification to vehicles or equipment must have the approval of the manufacturer, not impact the warranty and not impact the safe operation of the vehicle or the equipment. These issues must be outlined in the submission.**

Title of the Entry: Asphalt Truck Enhanced Cleaning Platform

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General Description: Provide a brief general description of the procedure, loss control activity or program being submitted.

If our asphalt truck is used during the day, it needs to be cleaned out at the end of the shift to prevent any left over asphalt from solidifying inside the hot box. This process was accomplished by having one of the crew members climb up the back of the truck (approximately 62.5"), stand on top of the hydraulic motor box and hose connectors, straddle the hydraulic hoses (a 8.5" space) and then use a five (5) foot shovel to clean the box, while standing parallel to the opening. Not only was the footing bad, this set up required the employee to twist at the waist to clean. Because of this, the operator of the truck and a Fleet Services welder/fabricator, designed and fabricated an Enhanced Cleaning Platform for the operator to stand on while cleaning the hot box of left over asphalt.

Purpose: Describe the problem, reason or circumstance that led to the development of this procedure, loss control activity or program.

The operator of our asphalt truck is required to clean out the hot box of any residual asphalt at the end of the shift. This keeps the remaining asphalt from turning into a solid mass inside the box, making it almost impossible to remove short of using a jack hammer or using diesel fuel as a softener. We prefer not to use the diesel fuel, even though it would mix with the remaining asphalt and could be used the next day. By doing this the quality of the asphalt the next day was so deteriorated; the crews had to return to the same patch on a more frequent basis. This was deemed to be a waste of time and money. The operator that performed the cleaning task realized after only a few cleaning sessions the hazards involved. The footing was precarious, the twisting at the waist was not a good motion, and the fall of 62.5" to concrete, if it happened, was going to cause injury to a singular body part (if we were lucky) or multiple body parts (more

likely). Therefore, he approached the fabricator/welder with his idea to make an actual platform, with grab rails, guardrails, steps to access the area, and a safety chain. This made the entire operation safer and provided the operator protection from falling or hurting his back, shoulder etc.

Program Development and Implementation: Who participated and how much time did each participant devote to this product/program? Were outside consultants used? Was the program developed in cooperation with a labor union or other organization?

One (1) employee from the Streets and Sanitation Department and the fabricator/welder from our Fleet Services Department were involved in the design, fabrication and installation of the Asphalt Truck Enhanced Cleaning Platform. Departmental Superintendents from each department okayed the project. The Streets and Sanitation employee had approximately one hour invested in the design of the Asphalt Truck Enhanced Cleaning Platform. His discussion with the fabricator/welder was about ½ hour long. The fabricator/welder estimated that he spent about eight (8) hours working on a design, based on his interaction with the Streets and Sanitation employee/operator. The fabricator/welder estimated he devoted approximately sixteen (16) hours of time fabricating and installing the different pieces of the access ladder, the working platform, the grab bars, guard rails, and safety chain holder. No outside contractors or consultants were used on the project. The program was not developed in cooperation with a labor union or other organization as these employees are not covered by a contract at this time. Contact with the manufacturer of the vehicle did not yield any solutions to this problem, so we proceeded on our own to make this a safer operation.

Significance: Explain why this program is important to loss control, risk management or safety in the public sector. What concepts, standards, practices or techniques are displayed or advanced? Does the program protect life? Reduce exposures? Was it developed to ensure regulatory compliance? Has the program been implemented?

This entry is important to our Workers Compensation, Risk Management, and Safety Program. The Asphalt Truck Enhanced Cleaning Platform has eliminated the need for an operator to climb up approximately 62.5", using different parts of the vehicle for footings without the benefit of grab bars or steps, stand on the hydraulic hose motor box, straddle the hoses, twist at the waist and shovel. The elimination of all these bad practices, and replacing them with an adequate means of access to a platform that is wide enough and intended to be stood on, has eliminated the potential for multiple injuries that can be sustained from a six (6) foot plus fall. One fill-in operator on this job refused to climb on the back of the truck to clean and opted to work off a mobile ladder. This presented its own set of safety hazards and ergonomic challenges. The Asphalt Truck Enhanced Cleaning Platform has eliminated the use of the mobile ladder option, while increasing the number of operators that can perform the cleaning function safely. This program was not developed to ensure regulatory compliance and the Asphalt Truck Enhanced Cleaning Platform has been in use for about six (6) months.

Transferability: Describe how this product/program can be adapted for use by other municipalities/CVMIC members. Would significant modifications or costs be required for implementation?

This platform can easily be adopted for use by other municipalities/CVMIC members for a minimal investment including time and material. There would not be significant modifications or costs required for implementation.

Cost/Benefits: What cost savings and/or benefits could a member realize by implementing this product/program? Describe how the impact of the program is assessed. Does it impact on operating costs? Improve productivity? Has your community seen a reduction in accidents? Injuries? Liability losses? If so, please describe the amount of the reduction and how they were measured. Describe the cost of development and implementation (staff time, resources, and other expenditures).

The immediate cost savings is reducing the possibility of multiple operator injuries from falling over six (6) feet to the concrete floor. A fall would probably result in head, shoulder, back, or knee injuries costing thousands of dollars. One operator involved in this operation already had a knee replaced by the City, so the easier access, climbing and standing, is helping reduce the wear and tear on that joint, hopefully negating the need for it to be replaced again at our expense (approximate cost $150,000.00 direct cost with medical, PPD and TTD) In addition are untold indirect costs (bad morale, a less experienced employee doing the job and taking longer to complete the task, etc.). We estimated the design cost was approximately $269.79 (1.5 hours x $23.41 per hr. for the operator's time, plus 8.5 hours x $27.61 per hr. for the fabricator/welder's time). The fabrication/installation cost was approximately $718.26 including the cost of the metal for the three (3) pieces of rebar used for the steps (3 x .90), the twenty (20) feet of 2" x ¼" wall square tubing (20 ft. x $9.80 per ft.), the expanded metal decking for the platform and the 20 feet of 1" round steel for the guardrails and grab bars (20 ft. x $3.89 per ft). In addition there were sixteen (16) hours x $27.61 in wages for the fabricator/welder. Total cost for design, fabrication, and installation was approximately $988.05. Operation costs have been positively impacted as we have eliminated the high potential of an injury due to a misstep and fall from the back of the truck. In addition the secondary operator no longer needs to spend time looking for a mobile ladder at the end of the shift, get it in place, etc. thus eliminating his chance of a potential injury from a fall. The Asphalt Truck Enhanced Cleaning Platform has allowed us to keep the employees out on the roads for additional time each day as the cleaning operation is now easier. The employees involved in this operation like having and using the Enhanced Cleaning Platform as it is much safer than the way they were initially performing this operation.

Originality/Innovation: What makes your approach unique or innovative? Describe the need or problem addressed. Where did the idea for the program or product come from? Was it adapted from a program developed elsewhere? If so, how was it modified?

The idea and design for this Asphalt Truck Enhanced Cleaning Platform came from the Streets and Sanitation employee that was most directly affected by the cleaning operation. This employee knew after a few times of initially trying to clean the hot box, while balancing on the hose connectors on top of the hydraulic motor box, there was a better and safer way to perform the operation. Consequently he drew up a design, approached the fabricator/welder for his input, got management's ok for the project to proceed, and in about three (3) days had a better, safer way to perform the cleaning function. Now the employees step on the tamper holder platform (11" off the ground), proceed to the 1st step (8" from the tamper platform), climb the steps (3 steps, 11" apart) using grab bars, to the platform which is 32.5 " long and 20" deep and 30" high with guard rails around it. To our knowledge, this program was not adopted from a program elsewhere.

Comment: Use this space to highlight any other issues or factors about this product/program that you feel should be considered as it is reviewed.

This was a situation where there was a potential for thousands of dollars of exposure if the employees fell from their perch over six (6) feet from the ground onto concrete. The employees knew there was a better/safer way to do this job and knew they were wasting their time and putting themselves in danger performing the job the old way. Employees showed initiative by designing and building what they needed to address the problem and did so in about twenty-six (26) hours of time. While no one likes to clean the hot box, the employees that do it have stated it is easier to do with the new platform. They feel more secure with an actual place for their feet, guardrails; grab rails to help with climbing, and the ability to face the task instead of twisting at the waist and trying to do this job. I think even they were surprised at how much easier and safer the new platform made doing this unpleasant task. For any members that have one of these trucks, I suggest they consider the Asphalt Truck Enhanced Cleaning Platform. It really works and makes the job safer.


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