



JUN 06 2018

4 June 2018  
Via e-mail  
Confirming via USPS

DEQ – AQD  
Daniel A. McGeen  
Constitution Hall, 1st floor, South Tower  
Lansing dist Office  
PO Box 30242  
Lansing, MI 48909

Re: Violation Notice of 14 May 2018

Dear Mr. McGeen:

Corrective actions have been implemented to prevent recurrence of the violations cited in your letter dated 14 May 2018. Corrective actions include,

*Submittal of the "Solvent Report" by the 1 February annual deadline*

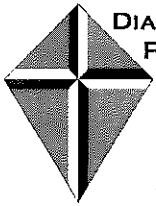
The Solvent Report was submitted on 20 March 2018. The deadline was inadvertently missed and corrected as soon as possible. To prevent recurrence I have now added two early January notices to my annual "tickler file" to prepare and submit in advance of the deadline.

*East rooftop ductwork leaks noted in First Quarter 2018, 3 leaks on 8 January and cleaned on January 9<sup>th</sup> without mention of repair.*

As MDEQ is aware, DCP spent significant resources in replacing all of its rooftop ductwork, replacing the 54 inch ducts that were replete with the many welds, seams and joints with seamless 24inch extruded PVC ductwork. With the new ductwork, the number of welds, seams and joints were significantly reduced and any leaks along the length of the ductwork runs has essentially been eliminated. It is important to understand, however, that a small weep may still occur at a welded seam. The reason for this is that a weld of the plastic PVC is done with a hot air gun which blows hot air sufficient to melt and fuse the plastic, and as the air infuses the molten plastic micro-bubbles of air leaving the weld form much like a sponge with tiny air bubbles throughout the weld. Chromic acid may slowly attack a thin wall of plastic between adjacent bubbles and penetrate to the next air bubble. In some cases this process may continue where bubbles with thin walls are adjacent throughout the thickness of the weld. The driving force for this fluid movement is not pressure since the ducts are under internal negative pressure but it is rather capillary action. As you know capillary movement requires a very thin route with confining walls very close together that enables the fluid to wet the walls along the route. The amount of fluid moving in this fashion is very small. This can result in a very small, pea size weep forming that is then quickly sealed as it dries upon exposure to air (i.e., the air bubble is filled with dried chromic acid). These do not drip to below or onto the roof. This process is not unlike fibrin conquering a cut when blood flows from a wound. The chromic acid has followed a contorted path through and across the weld. The drying of the surface upon air exposure essentially seals the path with dried chromic acid leaving a small stain. Once sealed, it is unlikely that that a new seep will occur at the same location. Therefore, DCP cleans the weld and observes during the inspection and the next day's inspection whether the weep has been self sealed. This is obvious by observation. If the weep is self sealed, no repair weld is required. The reason for this approach is that by unnecessarily using repair welds DCP may actually weaken the future integrity of the ductwork by further melting and fusing the plastic, which then adds additional air bubbles throughout the weld. If the weep is not self sealed, a repair weld is performed. This explains the lack of follow up repairs in almost all such cases. However, this does not make it clear to the reader of the record.

Accordingly, our inspectors have been instructed to make certain the follow up record includes the action taken, e.g. repair, or that the weep has self-sealed and no further action is warranted.

*East rooftop ductwork leak and repair of 18 August 2017 record.*



**DIAMOND CHROME  
PLATING, INC.**

Response same as above.

Note that this inspector has been fired as of Friday 26 January 2018. The replacement inspector has been instructed to make the record clear with the date of the repair or action is always recorded.

Diamond Chrome Plating believes we are now and will remain in compliance with these adjustments.

Very truly yours,

John D Wagner P.E.  
Directory of Health, Safety and Environmental Affairs.

pc/via e-mail

Mary Ann Dolehanty, DEQ  
Craig Fitzner, DEQ  
Chris Ethridge, DEQ  
Brad Myott, DEQ  
Malcolm Mead-O'Brien, DEQ  
Carla Davidson, DEQ  
Stephanie Kammer, DEQ  
Bryan Grochowski, DEQ  
Rebecca Taylor, DEQ  
Brian Negele, DAG