

Project Brief

GAF Materials Pedestal Structural Strengthening



Michigan City, IN
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A study of the condition of the oxidizer tank foundations at GAF Materials Corporation in Indiana indicated a lot of distress in the concrete piers on which the tanks were sitting. The deterioration of the concrete was attributed to the thermal shock of the hot water off the oxidizers. During the quenching stage and during winter, the freeze/thaw impact directly affected the concrete.

The repair scheme consisted of three phases: 1) injection of all cracks in the pier foundations using Tyfo® 111 low viscosity epoxy; 2) concrete surface repairs using an epoxy grout; and, 3) the installation of two layers of the Tyfo® SEH-51A System (glass composite). The first layer of the composite system was applied perpendicular to the octagonal edge, the second layer horizontally around the pier. Upon completion an anti-slip industrial paint was applied.

This was a temporary fix until a more permanent solution could be developed. The environment was very hostile and the solution using Fibrwrap® was a good one to allow the tanks to be used until a more thorough investigation could be completed.

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