


Case History – Gunnedah Shire Council Tank Repair

<i>Month/Year</i>	May 02
<i>Products</i>	NMP 1720 Heavy-duty protective coating with Kevlar
<i>The Problem</i>	Gunnedah Shire Council has had continual leakage from their 'Links Road No2' tank. Repairs have been made in the past using heated bitumen mastic; this entails several days of drying out the concrete floor prior to applying the bitumen product, followed by a curing period prior to refilling the tank. Also, work place safety procedures have made the application of hot bitumen difficult and unsafe in confined spaces.
<i>The Solution</i>	<p>A procedure was proposed to complete the necessary repairs in one day, including cleaning the tank at the same time. The Council had arranged to have the water level dropped down to 500mm over the floor area prior to arrival of the diver team. The site supervisor then carried out a 'walk around' internal inspection of the floor dressed in a 'dry suit' for insulation.</p> <p>Using the undisturbed covering of sediment as a guide, all internal leakage areas and floor cracks were identified and marked, prior to the tank being fully drained. Leakage was determined to be in two separate areas – the wall/floor sealing joint of mastic bitumen had lost adhesion in many sections, allowing water to escape. The floor area also had large-scale cracking along a 'general line' area, possibly caused by poor foundation preparation, or a prior ground disturbance occurring.</p> <p>Following sweeping and cleaning the floor of all sediments, a high pressure water blaster was used (at 4000psi) to clean all the leaking areas prior to application of NMP 1720 epoxy. The diver team divided into two groups for the application process. One person mixed the epoxy in relays to avoid premature curing, and the remaining two staff applied the epoxy using stiff plastic spatulas.</p>
<i>Notes/Comments</i>	Twenty-four litres of epoxy were applied in a two-hour period, and the tank was slowly refilled after initial curing. The tank was in full operation by the next day, and all serious leakage had been eliminated. The ability of NMP epoxies to be applied over wet surfaces and cure underwater greatly reduces the downtime normally experienced when using other sealing compounds. The ability to be used in confined spaces without specialised breathing apparatus is an additional bonus of NMP products.