

## ADM Ringaskiddy, Ireland



ADM's chemical plant at Ringaskiddy near Cork has its own power station with three 45 metre tall steel chimneys. The chimneys suffered from vortex shedding induced vibrations shortly after construction; fatigue cracking occurred in one of the chimneys.

Flint & Neill investigated the dynamic response and designed remedial measures. These included a bespoke guy damper system for each chimney and the strengthening of fatigue sensitive details.

Flint & Neill continue to advise on the maintenance of the chimneys. This has included:

- An independent assessment of the chimneys based on measured dimensions and thicknesses;
- Periodic site visits to inspect the steelwork and maintain the dampers;
- Design of local strengthening;
- Detailed design of replacement chimneys; and
- Supervision of chimney replacement.

Through Flint & Neill's involvement, ADM have been able to extend the service life of the chimneys well beyond that originally intended. Furthermore, replacement chimneys have been designed to eliminate problems identified in the original designs.

