

I was discovering these facts by visiting each ESG and checking all areas of the site. These ESG sites represented a very large and critical Company asset that was not being managed correctly.

The weekly reports that I sent to my boss kept him informed and up to date on my progress. I had to be careful while preparing the reports so as not to be critical or judgmental in reporting the facts.

I found it hard to blame the maintenance people for not properly maintaining the ESGs when they did not have properly trained personnel. Also, quite a few of the generator sets themselves were not properly designed or outfitted for the environment they were in.

Several of the generators had to be replaced due to the manufacturer installing the batteries on top of the generator. When the batteries were overfilled and then charged, the electrolyte bubbled out of the batteries and ran into the generators and shorted the insulation on the field windings and armatures.

Some of the engines were not designed for a harsh, desert environment and pulled sand through the air filters into the engines and destroyed them. Wrong designs for the application and inadequate maintenance added considerably to ESG problems.

The situation with the ESGs did not happen overnight. The generators were added haphazardly over the years as the Company expanded in size.

Every time the Company went through an expansion period and added new facilities, a generator set was purchased almost as an afterthought. That's how I counted 17 engine manufacturers, 21 generator manufacturers, and fifteen automatic transfer switch manufacturers. Few people in the US ever hear of a Yanmar diesel engine.