The facility of shrimp and other seafood products to undergo deterioration processes demands from the fisheries industry continuous attention regarding their quality. One of the major issues concerning the sanitary security of foods is the diseases caused by pathogenic bacteria contamination, often associated to inadequate handling and inappropriate storage, which may represent health risks to consumers. The aim of this study was to evaluate the occurrence of two important pathogens – *Staphylococcus aureus* and *Salmonella* sp. – in shrimps marketed at public fairs in Natal, Rio Grande do Norte. Throughout the month of February 2012, twenty samples of raw, whole, fresh shrimp were collected, from different locations, weighing 200g each. The analyses were performed accordingly to the methods established by legislation. The results for *S. aureus* showed average counts of $1.25 \times 10^4$ cfu g$^{-1}$, and the highest count was $2 \times 10^5$ cfu g$^{-1}$, far superior to the $10^3$ cfu g$^{-1}$ allowed by Brazilian (RDC nº 12) and European (CR nº2073) regulations. Only 8 samples (40%) were within the counts required by these guidelines. The presence of *Salmonella* sp. was detected in 4 samples (20%), even though the absence of this pathogen is demanded by the mentioned regulations and by the American FDA, due to its hazardous nature. Since these microorganisms are sanitary indicators, the results suggest the shrimps acquired for this experiment came from establishments displaying poor hygienic conditions. Therefore, the application of Good Manufacturing Practices is necessary to decrease the shrimps’ bacterial contamination and assure an innocuous and secure product.