**EFFECT OF CATHODIC PROTECTION ON COATING STEEL PIPELINE IN SALINE ENVIRONMENT**

**Naser Korde Zedin**

Assistant Lecturer, Production Eng. & Metallurgy Department, University of Technology

Naserkorde\_56@yahoo.com

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**ABSTRACT: -** There are two main types of cathodic protection systems: galvanic and impressed current. In this research, the effect of coatings on impressed current cathodic protection was studied. The selection of coating process for a specific application depends on several factors including the corrosion resistance that are required, the anticipated lifetime of the coated material and environmental considerations. When using cathodic protection on coated pipelines, the problems that exist if the coating disbands (loses adhesion) must be considered. Many in the oil steel pipeline industry assume cathodic protection will solve their external corrosion problems without truly understanding the relationship between the epoxy-coating and cathodic protection. Most external corrosion on oil steel pipelines is caused by disbanded epoxy-coating that shield cathodic protection. This paper will discuss the differences in cathodic protection of oil steel pipeline that coating and not coating and how cathodic protection works with these coatings (wear used epoxy (G-5470), (G-5471) and (G-5472), three types component epoxy system resistance to acid and chemical from modern paints industrials Company (in Iraq)). The aqueous corrosion properties of the coated samples in 3.5 wt % NaCl solution were studied by Tafel extrapolation measurements.

**Keywords:** Cathodic Protection (CP), Epoxy-coating, Corrosion Current Density (Icorr), Corrosion Potential Ecorr, Tafel Extrapolation.