



INSITU INSULATOR REPAIR

THE HY POXY SOLUTION



Due to flashover, the bursting of Insulators and breakage of Insulator petticoat area is a common problems in any sub station.

Normally replacing the broken disc is the only solution in the hand of maintenance personnel but which is very tedious and time consuming. Some times in high voltage substations, the replacement takes few days which leads to shut down of the substation.

HY POXY SYSTEMS INC. OF USA offers a time tested unique solution to address above issues.

INTRODUCTION OF "HY POXY SYSTEMS, INC." U.S.A :-

Hy Poxy Systems is one of the leading MRO EPOXY SOLUTIONS provider & a premiere formulator, manufacturer and worldwide marketer of quality epoxies. The company is headquartered at South Carolina USA & with the completely automated modern manufacturing facilities, provides internationally proven **Metal & Ceramic filled Polymer compounds for maintenance & repair solutions.**

The Hy Poxy Systems Inc. has pioneered the concept of "**COLD WELDING REPAIR TECHNOLOGY**".

Under "CWRT" technology, the bonding between metals and ceramics is achieved by cold chemical process and without any heat input as in the case of electric arc or gas welding process.



HY POXY PRODUCTS :-

Hy Poxy range of repair compounds are mostly 2 component systems consisting of the RESIN & HARDNER. The resin contains of finely powdered metals or ceramic suspended in an epoxy filler. The hardner is a chemical curing agent. When the resin and the hardner are mixed in the right proportions, the mixture quickly cures to form the solid mass.

Hy Poxy products are engineered to carry out fast insitu repairs and put damaged equipments back into service quickly.

The cured metallic mass will have comparable and often superior physical and chemical properties as compared to base metal.

PROBLEM :-

INSITU REPAIR OF PETTICOAT AREA OF INSULATOR DISC.

Due to flashover or high voltage surges or due to loss of insulator glaze, some times the petticoat area of insulator is bursted and broken.

In the normal course, the replacement of the broken disc is the obvious answer. But this option normally is very time consuming and expensive too.

The replacement of disc calls for complete sub station shut down, dismantelling of the insulator and finally the replacement of broken disc.

This leads to :-

1. No Power situation.
2. Loss of revenue for the board.
3. Expensive maintenance to bring back the normal situation.

THE HY POXY SOLUTION :-

Many solutions have been tried out but with limited success and each solution have many limitations.

The Hy Poxy solution is a quick and easy solution and does not involve cumbersome procedures.

The Hy Poxy solution is consisting of three main products

1. Hy Poxy "CLEANER / CONDITIONER"
2. 2. Hy Poxy "WEAR RESISTANT PUTY"
3. 3. Hy Poxy "CERAMIC HARD COAT - RED"

The Hy Poxy "CERAMIC HARD COAT - RED" is a normal curing product which has property of high dielectric strength (16KV / mm) with very good heat dissipation properties.



BRIEF PROCEDURE :-

1. Clean and roughen the area using the clean cloth and emery paper.
2. Clean and prepare the surface using the Cleaner / Conditioner.
3. Make a steel template with same contour & external dimensions as of original disc.
4. Mix small qty of Hy Pox "WEAR RESISTANT PUTY" as per the mixing ratio advised.
5. Apply by spatula the mix material & align to match the template contour.
6. Mix more material and fill all the area.
7. Allow the deposit material to cure as advised in the product technical specs.
8. Once the Wear resistant putty is cured ,mix small quantity of Hy Pox "CERAMIC - RED"
9. Apply by brush. The Ceramic coat is self settling hence slowly flow and set evenly.

TRAINING :-The operating staff of a substation can be easily trained to apply these products in case of emergency requirements. Hy Pox Systems also offers special training courses for group of operating and maintenance personnel from SEB.

The company offers application services through nation wide presence of techno commercial executive and managers, Team of skilled applicators along with wide network of authorized dealers located at strategic locations.

We provide complete MRO services like Maintenance survey, assessment of problems, Recommendation of suitable products and services & finally the complete application services. We also provide feedback with the data on financial savings by customers employing our services.

TESTIMONIALS :-The above products and methods are in extensive use in the main and sub stations of various electricity boards and also private power companies.

We can submit few case studies, performance certificates along with job completion reports and job photographs on demand.



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