PRODUCTS AT WORK

VERTICAL WET SCRUBBER SYSTEMS

Beta NO_x 2000™ Turnkey System Controls NO_x Emissions at National Superconducting Cyclotron Lab

Background

The National Superconducting Cyclotron Lab (NSCL) at Michigan State University in East Lansing, Michigan, constructed a new chemical milling facility to achieve the desired quality required for their Niobium RF cavities surfaces which are critical to NSCL experiments in nuclear physics.

Initial experimentation and analysis of the chemical milling of Niobium using strong Nitric Acid generated a significant concentration of NO_x emissions. Test results were tabulated and a draft equipment specification was prepared for an NO_x scrubber control system. Duall Division was invited to visit the facility and give a presentation on the features and benefits of the Beta NO_x technology.

Duall proposed a unique batch chemical control system to minimize capital costs and operational maintenance. Duall also offered project management control and turnkey installation. The proposed package included plan elevations drawings as well as process and instrumentation diagrams.

The NSCL project manager packaged all the new information and modified specifications for public bidding procedures. After thorough analysis of competitive bids, Duall was awarded the contract.

Results

A pre-contract meeting was held with Duall project management and service installation personnel at the NSCL. A full review of the proposal with the NSCL project manager, project physicist, facility managers, and facility electrical engineer was performed to detail specific requirements.

The site was carefully measured. New plans were submitted and a purchase agreement issued. Duall proceeded to fabricate the scrubber, AMCA certified fan, control panel and the ventilation duct system. In November 2001 Duall performed installation, start-up, and operator training.

Present Status

The lab has done several milling procedures since installation. All procedures have met required quality with excellent control of process NO_x emissions.

Application: Niobium Chemical Milling/NO_x and HNO_3 Emissions

User: NSCL at Michigan State University

Reference: 4356-01

PT500 Series Beta NO_x 2000™

- Corrosion Resistant PVC Construction
- 6" ΔP W.C. Vacuum
- Duall RB-6 Fan with VFD, and sound blanket
- Airflow Variable to 500 CFM

Beta NO_x Technology
PT-500 Series Wet Scrubber
PUC Construction

MET PRO CORPORATION
Duall Division
1550 Industrial Drive, Owosso, MI 48867-9799
TEL (989) 725-8184 • FAX (989) 725-8188
E-mail: duallldiv@met-pro.com • Web Site: www.duallldiv.com