



Challenge

Diesel smoke removal in service garage

Volume

12,000 CFM each

Solution

3 Motorized boom arms 24" diameter with horizontal and vertical movement connected to a New York blower

Iron Ore Canada

Rio Tino Mine

Labrador City, NFL

Iron Ore Canada is located in Labrador City, Labrador, Newfoundland, Canada. It was developed more than 40 years ago as a mining operation. A 12 bay service garage was built to repair the ore trucks and loaders. The general exhaust was not effective in smoke removal and it was difficult to heat the garage when it was operating. To ensure a safe work environment it was decided that source capture of the carcinogenic diesel exhaust was the only alternative.



The first attempt was a manual boom arm pulled into position by a rope from the floor. Due to the size and weight it was difficult to use. Atlantic Air Cleaning Specialists was consulted by AMEC Engineering to work with them on developing a user-friendly system to solve the diesel exhaust problem in three more of the twelve bays. AACs with the help of AVANI Environmental designed motorized booms that would store flat against the wall when not in use and when required would swing out into the shop and lower a capture hood to the exhaust of the truck or loader. This was all done by a service person operating a controller from the floor. The exhaust fan was then turned on and the vehicle started up. This was a huge success and plans will be made to furnish the remaining 8 bays with this custom motorized boom arm developed by Atlantic Air Cleaning Specialists Ltd.

Performance granted to comply with local and federal clean air regulations