CASE STUDY FOR THE CAROLINA CONCEPTIONS FERTILITY CLINIC

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PURAFIL IMPROVES INDOOR AIR QUALITY
FOR THE CAROLINA CONCEPTIONS FERTILITY CLINIC

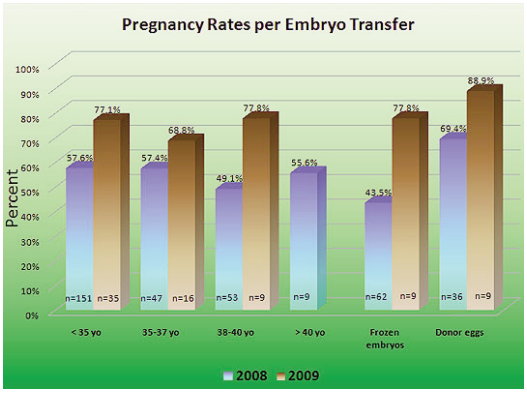
ABOUT CAROLINA CONCEPTIONS

Since Carolina Conceptions Fertility Clinic opened its doors in August 2006, it has become the fastest growing infertility/in vitro fertilization (IVF) private practice in North Carolina. Located in Raleigh, the clinic specializes in the treatment of primary, secondary, male, and female infertility. The clinic provides on-site IVF, egg donation and recipiency, husband and donor intrauterine inseminations, and a gestational carrier/surrogacy program.

THE PROBLEM

The 11,000 sq. ft., three-story medical facility that houses Carolina Conceptions is located in a busy suburban office park. The entire facility: the IVF lab, andrology (male infertility) lab, twelve exam rooms, offices, and lobby are vulnerable to airborne molecular contamination (AMC) from unwanted gas-phase contaminants. Pollutants like smog, ozone (O_3), sulfur dioxide (SO_2), and nitrogen oxides (NOXs) are produced by automobile exhaust, nearby industrial facilities, and many other outside sources that surround the clinic. Since IVF must be conducted under highly optimized conditions to permit maximum fertilization, the indoor air quality (IAQ) in the lab is critical for successful pregnancies.

Airborne contaminants can affect IAQ when they are introduced through unfiltered outside air intakes of an HVAC system. In order to prevent AMC, the clinic needed an efficient way to filter its indoor air and monitor room conditions in the labs, exam rooms, and office.



PURAFIL PROVIDES A SOLUTION

As part of a large-scale effort to improve the facililty, Carolina Conceptions contacted their local Purafil sales representative, Engineered Air Systems, and a Purafil Double Wall Side Access (DWPSA) System was installed by Comfort Engineers contractors as a replacement for an existing carbon filter. The flexible design of the DWPSA unit permits customization for specific installation requirements. The system at Carolina Conceptions was able to be retrofit and installed upstream as part of the clinic's five ton HVAC system. The DWPSA system, containing Purafil® SP media, now works in conjunction with the facility's air handling system to control airborne particulates.

In addition to the DWPSA, an OnGuard® 2000 Atmospheric Corrosion Monitor was installed at Carolina Conceptions to track and control IAQ conditions and to make certain that the DWPSA continues to function as designed. Purafil has also provided the clinic with the value-added services of Media Life Analysis (MLA) as well as OnGuard/A-Prompt readings to further ensure the system's optimum performance.

Shortly after the installation of the Purafil DWPSA and implementation of several other improvements at Carolina Conceptions, the success rate of IVF pregnancies began to rise. In a matter of a few months, **the rate of successful pregnancies in the IVF lab rose from 50 percent to a 75 percent average**. Heather Blackmon, embryologist at the clinic and a member of the American Society of Reproductive Medicine, stated that she would "highly recommend [Purafil] to other IVF labs for incorporation into their filtration protocol."

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