

Article VI. Independent Safety Testing Results

Included in this manual is the independent testing result for the Super Sonic Vac/Blast Model 2012 manufactured by Logocrete of NY, LLC. The test was performed on October 23, 2006. The test was performed by Dr. Zane Cofield of The Cofield Consulting Group.



19 DEC 2006

Bob Williams, Operations Manager
Stampcrete/Logocrete
Liverpool, New York

Dear Bob:

Today I have finished compiling data on our earlier testing of the new Logocrete process, and I'm happy to inform you that, as we thought, the tests bear out the fact that the process is as close as possible to harmless. There are some minor areas of concern, but nothing in the way of major hazard.

After taking the tags obtained in the testing process and comparing them to OSHA's guidelines on irritant dusts, silicosis standards, and other respirable dust studies, it is apparent that the Logocrete process is safer than walking on the beach on a windy day.

Results are enclosed within the empirical report accompanying this letter. As always, it is my great pleasure to work with you.

Sincerely,

Zane Cofield, Senior Consultant
The Cofield Consulting Group
Rome, New York

Survey Protocol for Testing
Logocrete Systems, LLC
Sandblasting/Concrete Etching Apparatus

October 23, 2006

Testing by:

Cofield Consulting Group
Rome, New York

**Environmental Safety Testing of
Logocrete Systems, LLC
Sandblasting/Concrete Etching Apparatus**

Consultant's Findings

Survey Protocol

Purpose of the Survey

At the request of the Mr. Michael Fennessy, Mrs. Karen Leith Fennessy, and Bob Williams, all of Stampcrete International and Logocrete Systems LLC, this firm was called in to conduct environmental safety tests on a new apparatus associated with the sandblasting and decorative etching of concrete, a process by which machinery-propelled particles of an abrasive are used to etch logos and other insignia into the concrete walkways, walls, and other surfaces of name-brand retail establishment buildings and the like.

Mr. and Mrs. Fennessy, who own the two companies above, and Mr. Williams, who is their Operations Manager, requested that this firm and consultant conduct any and all tests necessary in order to ensure complete safety for the operators of this new machinery, which is to be sold to Franchisees, as well as to test for the safety of bystanders and other lookers-on, and that of assistants and other persons possibly present while the sandblasting/etching process is being carried out. Senior Consultant of this firm, The Cofield Consulting Group, LLC, Zane Cofield, D.Sc., was further asked to report all findings of all testing protocol to the owners and Operations manager, and to submit his findings in writing so that they might become part and parcel of an Operations Manual provided to each purchaser of one of the new Logocrete Systems, LLC franchises.

Consultant was given unlimited budget and instructed to conduct non-biased tests with regard to any possible user hazard associate with this process.

Those hazards thought to present potential danger to the user are listed below:

1. Noise Hazards

Since gasoline-powered small engines are utilized in this process, the inventors/owners were interested in finding whether these machines, either used solely or in conjunction with one another, would or could cause damage to the hearing of the user.

2. Respiratory Hazards

Due to the fact that a non-hazardous media is used to cut into the concrete surface being etched, it was not anticipated that there would be respiratory hazard on that front; however, as the material being etched was indeed concrete, therefore containing silica, a potential respiratory hazard existed on that count, thus the need for particulate testing.

3. Eye and Facial Hazards

Since concrete dust, in minute quantities, is produced during this process, it was assumed that there could be a potential eye irritant present in the atmosphere during etching. Also, the media, being driven by a compressor unit set at 75 psig, could present a facial hazard, and though not significant otherwise, if directed toward the eyes, could cause irritation and abrasion.

4. Ingestion Hazards

As most substances transfer easily from hand to mouth during ingestion of food, it was assumed that silica could be transmitted to the mouth area if proper hand protection were not worn during the etching process.

5. Electrical Hazards

The machinery used produces electrical current; therefore an in-use observation was conducted to determine whether any significant electrical hazards were present.

6. Fire Hazards

Combustion engine machinery used in this process, as well as electrical current machinery used, hold the potential for fire danger; therefore an in-use observation was made to determine proper fire safety procedures for those using the apparatus.

Exposure Sites

The process is normally done out of doors though, it is assumed that at some jobs, the etching may be done indoors, perhaps in shopping mall environs and the like. In order to determine certain of the hazards, testing was begun in some cases within two feet of the machinery (audiometric), and at a remove of ten feet in others (audiometric). Other tests were conducted at absolute point-of-operation, with the subject actually wearing on his person the testing device, in order to achieve the most accurate results possible.

What Was Sampled

In the order listed above, observations and precautions took the place of testing for known amperage, residual dust accumulation on clothing, and the like. It was assumed that the following tests would suffice to ensure user safety.

1. Noise Hazard: This hazard was tested empirically utilizing an IRD Mechanalysis Vibration and Sound Meter, Model 308.
2. Respiratory Hazard: Particulate sampling was completed using a ThermoElectric PDR-1000 Hand Held Real Time Sampling Device.
3. Eye and Facial Hazards: These were circumvented through the use of both Eye Safety Device (protective goggles) and a 3M Dust Particulate Respirator protective device with a NIOSH rating of N-98.
4. Ingestion Hazards: This hazard was eliminated through the wearing of gloves during the etching process, and removal of same afterwards, prior to leaving the work environs.
5. Electrical Hazards: This hazard was eliminated by the use of UL-Approved extension cords, modern machinery equipped with Ground Fault Circuit Interruption devices and good environmental controls, such as providing dry surfaces for the work area.
6. Fire Hazard: Fire hazards were reduced or eliminated through Best Practices procedure such as sweeping the work area prior to commencement of work, elimination of flammable debris, and the presence of NFPA (National Fire Protection Association) -approved ABC Fire Extinguishers kept in close proximity to the work site.

Who Was Sampled

Particulate sampling was done at the point of use of the machinery, with a Personal DataRAM real-time particulate monitor actually attached to the belt of the user while he operated the machinery at full capacity.

Audiometric Testing, in decibels, was measured at the actual location of the machinery, from a distance of three feet from the machinery, and at the actual point of user position.

Samples Collected

Noise samples were collected using the aforementioned audiometric equipment and particulate samples, measured in both real-time exposure and Time Weighted Average were collected using the equipment listed for that purpose.

Two sets of Particulate Testing Data (Tags) were collected. Four Audiometric Samples were collected.

Results

Noise samples collected at the source (generator from two feet distant); (compressor from two feet distant), and all three machines, including cyclonic engine sandblaster, at two feet distant, resulted in a 98dB rating.

Upon moving the pickup microphone to a distance more consistent with actual use of the equipment in actual conditions, the dB rating was 79dB, below the threshold for OSHA's noise danger levels.

Particulate Measurements were taken at the actual point-of-use position, where the user was actually located, and the results of those two independent tags are as follow:

TAG ONE:

Test Duration: Four minutes, fourteen seconds.

At no time during this test did the real-time particulate concentration in the immediate vicinity of the user exceed OSHA's PEL, TWA, or STEL limits, actual numbers below:

TAG ONE: Maximum real-time exposure, during four-minute duration of use, reached 14 micrograms per square meter, well below the OSHA limit.

The reader must be mindful that TWA figures would be so far below the OSHA limits as to be practically ignored, as the user is only using the machine apparatus for 4-12 minutes per every two hours on the job during an eight-hour day.

TAG TWO: Maximum real-time exposure during a ten minute, fifty-four second duration of use resulted in a certified reading of 2.095 STEL, and a 3.271 TWA reading, respectively.

At no time during the operations of this machinery did respirable dust, silicon, silica, or any other mineral invade the user's breathing space at or even near the OSHA safe limits for such substances.

Conclusions

It is the conclusion of the experimenter that the Logocrete Systems LLC apparatus is quite safe, under the following stipulations, set not according to OSHA standard, but to the recommendation of the consultant, in order to provide protection to the user above and beyond that required by OSHA and all other agencies.

The appropriate personal protective equipment, according to this consultant, for those executing the Logocrete Systems LLC etching process, using the tested machinery is as follows:

1. Foam type earplugs, disposable type
2. Close fitting cloth gloves
3. N-97 or better type 3M dust mask
4. Lightweight coverall, either disposable or washable, to be kept separate from clothing worn at the home of the user of the sandblasting machinery.

Machine Calibration

Instruments utilized in this testing were calibrated as follows:

The TE – PDR – 1000AN, PDR – 1000 Hand-Held Real-Time Aerosol Monitor Serial Number 6340 was calibrated prior to the testing. That calibration took place on July 17, 2006.

The IRD – 308 Vibration – Sound Level Meter, Serial Number 9509459, was calibrated prior to the testing contained in this report. That calibration took place on October 12, 2006.

Both instruments were calibrated in accordance with industry standards by their owners, Thermo-Electric Corporation, and calibration affidavits were signed by Authorized Representatives of that company.

Along with this Consultant's Findings Report are:

1. Receipts or rental of testing equipment from ThermoElectric Corporation
2. Certificates of Calibration for both instruments
3. Original MASTER 8MM videotape of testing site and testing in progress
4. Copy in VHS format of testing site and testing in format
5. Consultants handwritten notes compiled during actual testing
6. Notes of the Consultant's Administrative Assistant, taken during testing.

Experimenter:

Gary Zane Cofield, Senior Consultant
Cofield Consulting Group, LLC
Co-Founder, National Safety and Health Trainers Alliance of America
Doctorate of Science, Occupational Safety and Health
West Virginia University at Morgantown, West Virginia, 1980

New Jersey School of Medicine and Dentistry, 2000, Updated 2005
Graduate Specialty in Hazardous Materials Supervision

New Jersey School of Medicine and Dentistry, 2004, Updated 2006
Graduate Specialty in Hazardous Waste Management

OSHA-Authorized Outreach Instructor for the Construction Industry, 1999, Updated 2004

OSHA-Authorized Outreach Instructor for General Industry, 1998, Updated 2003

Affirmed:

To the best of my knowledge, these tests were conducted in true double blind experiment procedure and the results are accurate to the best of my ability and the accuracy of those devices used to conduct said experiment.

Electronically signed,

Zane Cofield, D.Sc.

* For any additional testing questions please contact Logocrete of NY, LLC or Cofield Consulting Group.