October 26, 2016

Clemson University
310 Klugh Avenue
Clemson, South Carolina 29634

Attn: Mr. W. Robert Newberry, IV
E-mail: wnewber@clemson.edu

Re: Limited Mold Investigation Report
Clemson Apparel Research
Pendleton, South Carolina
Terracon Project No. 86127158 – Task 69

Dear Mr. Newberry:

Terracon Consultants, Inc. (Terracon) conducted a limited mold investigation in the offices of Clemson Apparel Research at a Clemson University facility in Pendleton, South Carolina after a complaint by three full time employees regarding an allergic reaction alleged to be resulting from mold. This service was conducted in general accordance with our Master Service Agreement with Clemson University.

## PROJECT DESCRIPTION

### Scope of Services

At the request of Clemson University, Terracon representative Mr. Benjamin Hestir conducted a limited mold investigation at the Clemson Apparel Research facility in Pendleton, South Carolina on October 21, 2016. The investigation included; a visual assessment of the facility, collection and review of indoor air quality questionnaires from employees provided by Clemson University, and review of measurements of temperature and relative humidity from two locations inside the facility collected by building occupants.

### Standard of Care

This limited mold investigation was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. Terracon did not attempt to identify every potential exposure or hazard present in the subject building. The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during our investigation. Many factors, such as weather conditions, building occupancy, ventilation patterns and seasonal variations in

fungal concentrations, can affect the conditions observed. The information contained in this report should not be relied upon to represent conditions that existed prior to or after this investigation. Terracon does not warrant the services of regulatory agencies, laboratories or other third parties supplying information that may have been used in the preparation of this report.

# INVESTIGATION CRITERIA AND METHODS

## Visual Assessment

The visual assessment was conducted to determine whether building materials were impacted by moisture intrusion or condensate formation, and to identify the presence of visible fungal growth. The assessment focused primarily on collecting observational data (i.e., information obtained by physical assessment of the building and interviews with the building management and maintenance staff). The visual assessment can help to formulate plans for more in-depth investigation and/or maintenance.

The visual assessment included:

- an examination of the physical structure and potential indoor and outdoor sources of moisture intrusion in the area of concern;
- the identification of any discoloration or odor that could indicate moisture intrusion, water damage, and/or fungal growth; and,
- an examination of the HVAC system.

## Temperature and Relative Humidity

Indoor air temperature and relative humidity are physical conditions important to the perception of comfort. The American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) has published recommendations regarding thermal comfort. ASHRAE Standard 55-2013, Thermal Environmental Conditions for Human Occupancy, identifies six primary factors that affect comfort: metabolic rate (affected by the activity being performed); clothing insulation; air temperature; radiant temperature; air speed; and humidity.

Although the relationships are complex, a temperature range between 73 and 79 degrees Fahrenheit (°F) with relative humidity between roughly 20 and 60 percent (%) are recommended for persons in a conditioned setting wearing light summer clothing. Higher temperatures require lower humidity for comfort.

EPA recommends maintaining indoor humidity below 60%, ideally 30-50%, if possible.

Readings of temperature and relative humidity were collected by a Clemson staff member based on the facility (Dr. Jonn Faulk) with an Omega Model OM-73 IAQ instrument which was calibrated by the manufacturer.

### Indoor Air Quality Questionnaires

Three full time staff members at the facility completed indoor air quality questionnaires provided by Clemson University. The completed questionnaires are attached to this report.

## FINDINGS

### Physical Assessment

The Clemson Apparel Research (CAR) facility was originally constructed in 2002 and was then renovated for current usage in 2014. Based on employee interviews, the facility originally contained a large printing press. There are at least 3 fulltime employees in the approximately 8,400 square foot facility at the time of our investigation.

No indication of water infiltration was observed or reported in the facility and no musty odors were detected. However, small (less than 10 square feet) amounts of apparent fungal growth were observed on a wrist rest at a computer work station on the southeast side of facility.

Additional small areas of apparent fungal mold growth were also observed on equipment and surfaces of the Secure Compartmentalized Information Facility (SCIF) built inside the lab for specialized yarn and fabric research. The SCIF structure was previously reported on in an investigation report conducted at the facility in a Terracon report dated December 11, 2015.

Reportedly, there was an inspection of the HVAC system conducted by University Facilities (or their vendor) a few days prior to our investigation.

The HVAC model installed at the facility (Trane YCH420) is rated at 35 tons of cooling capacity, based on a review of the Trane website by Terracon.

### Temperature and Relative Humidity

Temperature and relative humidity data were provided by Dr. Jonn Faulk, an employee of the CAR facility using an OMEGA OM-73 logging meter. The meter was set to record data every 2 minutes. Readings were made inside the SCIF room from August 24 – September 23, 2016 and on Dr. Faulk's desk on multiple dates in June 2016.

The SCIF room data showed average temperatures over a month around 72° F and relative humidity average for the same period at around 70%. The door to this SCIF room within the CAR facility is reported by Dr. Faulk to be left open at all times.

Data from Dr. Faulk's desk in June indicated around 74° F and relative humidity average for the same period at around 61%. Data spreadsheets from the OMEGA instrument referenced above are attached.

In addition to the measured data, CAR facility staff report damp paperwork and malfunctioning printers and copiers that may be related to high humidity in the facility.

### Indoor Air Quality Questionnaires

Three full time staff members at the facility reported a variety of irritative health symptoms and physical evidence of high humidity at the facility which they all reported as going away once they went home or to other work locations. In addition the high humidity reportedly caused problems with their university related research paperwork and forced them to take extraordinary measures to protect chemical products and textile samples used in their research work from high humidity.

## CONCLUSIONS

The following conclusions are provided based on our assessment:

- Apparent small areas of fungal growth were observed and are likely due to high humidity conditions based on locations and quantities.
- Temperature was within ASHRAE recommended guidelines.
- Relative humidity in both locations exceeded EPA recommendations.
- Review of the questionnaires indicated evidence of high humidity in the building.
- The HVAC may have been sized for previous building usage as a printing facility and thus may be short cycling or not conditioning the air properly, resulting in high relative humidity.
- A mechanical engineer experienced in HVAC design should evaluate the HVAC to determine the best way to reduce the relative humidity.

Terracon appreciates the opportunity to provide this service to Clemson University. If you have any questions regarding this limited mold investigation report, please contact the undersigned at 864-292-2901.

Sincerely,
**Terracon Consultants, Inc.**

Benjamin Hestir, P.E.
Project Industrial Hygienist

Jeffery A. Gurrie
Senior Industrial Hygienist

Attachments: Photographs
Temperature and Relative Humidity Readings
Questionnaires

# Photographs



**Photo #1** View of entrance to Clemson Apparel Research (CAR) facility in Pendleton, SC looking south



**Photo #2** View of surficial mold growth on wrist rest at work station of Dr. Jonn Foulk



**Photo #3** View of HVAC ducts within the interior of facility looking south



**Photo #4** View of fan unit on south side of facility next to loading dock doors

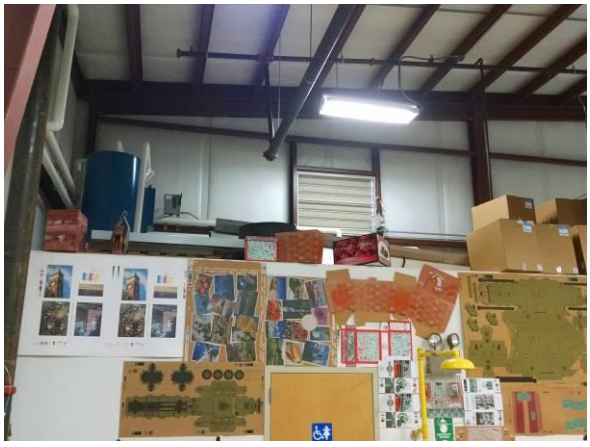


**Photo #5** View of fresh air inlet located opposite fan units on north side of the facility



**Photo #6** View of return air to HVAC with deflector installed by occupant of adjacent office space



**Photo #7** View of HVAC unit located on northwest side of facility looking north



**Photo #8** View of west side of facility looking southeast



**Photo #9** View of south side of facility looking northwest



**Photo #10** View of east side of facility looking north-northwest



**Photo #11** View of growth on metal exterior cladding on north side adjacent to entrance




**Photo #12** View of Omega temperature/humidity sensor used by CAR staff

## Temperature and Relative Humidity Readings

Logger Memory: The Skiff Room
August 24 - September 23, 2016 - 21,672 readings - OMEGA OM-73 Instrument

Summary

| Channel | Min | Max | Average | Standard Dev | Mean Kinetic Temperature |
|---|---|---|---|---|---|
| Temp (F) | 69.1 | 75.45 | 71.8608 | 0.854989 | 71.8828 |
| Hum (%RH) | 49.35 | 89.75 | 70.3988 | 7.82219 | ----- |
| Dew Point (F) | 52.83 | 68.04 | 61.5511 | 3.20454 | ----- |

Logger Memory: Foulk Desk
June 13 - June 18, 2016 - 4,020 readings - OMEGA OM-73 Instrument

Summary

| | Temp | RH % |
|---|---|---|
| Average | 23.52 | 61.14 |
| | | |
| Temp in F | 74.34 | |

| Date Time | temp C | Hum (%RH) | P Pa | Dew Point (F) | W |
|---|---|---|---|---|---|
| 6/13/16 10:01 AM | 23.72222 | 60.45 | 98133.3 | 60.1 | 0.011454873 |
| 6/13/16 10:03 AM | 23.72222 | 59.35 | 98133.3 | 59.59 | 0.011242662 |
| 6/13/16 10:05 AM | 23.72222 | 58.5 | 98133.3 | 59.19 | 0.011078779 |
| 6/13/16 10:07 AM | 23.72222 | 57.5 | 98133.3 | 58.7 | 0.010886084 |
| 6/13/16 10:09 AM | 23.69444 | 56.6 | 98133.3 | 58.22 | 0.01069455 |
| 6/13/16 10:11 AM | 23.61111 | 55.95 | 98133.3 | 57.76 | 0.010515833 |

# Indoor Air Quality Questionnaires

# IAQ questionnaire

Answer all questions or indicate if the question does not apply to your situation. Provide as much information as you feel necessary to adequately describe your indoor air quality situation.

# Contact information (optional)

**Your Name** JOHN FOULK

**Job Title:**

**Department:** Materials Science & Engineering

**Building/room #:** 500 C Lebanon Road

**Phone:** JOHNF@clemson.edu

**Email:** (864) 646-8454

1. **Briefly describe your air quality concerns including the specific location(s) of the concern:** No humidity control - high humidity
Mold growth inside building
grass/dirt/pollen enter exhaust vents during mowing

2. **Indicate if you frequently have any of the following complaints concerning the indoor air quality at your building.** *(circle all that apply)*

| | |
|---|---|
| (Dusty) | Too hot |
| (Noisy) | (Too cold) |
| Stuffy Air | Too dry |
| (Moldy or musty odors) | (Too humid) |
| (Visible mold) | (Drafty) |
| Stuffy Air | Vibration |
| Crowded work area | |

Other Wide fluctuations in humidity during day

3. **When did these problems begin and when do they occur?**

❖ Month/year when problem began: since building has been occupied

- What time of day do you experience the problem? *(circle one)* morning / afternoon / all day
- Are there specific day(s) of the week that you experience the problem? *(circle all that apply)*

Monday / Tuesday / Wednesday / Thursday / Friday / Saturday / Sunday

- Is there a specific time of year that you experience the problem? Yes/No

Specify when: wider range of humidity problems during summer and during rainy days — Always start DAY @ high humidity

4. **What health symptoms have you experienced?** Check any symptoms you are experiencing in your building.

| Symptom | Occasionally | Frequently | Not related to building | Appears after arrival | Increases after arrival |
|---|---|---|---|---|---|
| Difficulty in concentrating | X high humidity | | | | |
| Dry or sore throat | | | | | |
| Aching joints | | | | | |
| Muscle twitching | | | | | |
| Back pain | | | | | |
| Hearing problems | | X Near front of Building | | Air intake | |
| Dizziness | | | | | |
| Headache | | | | | |
| Dry, flaking skin | | | | | |
| Discolored skin | | | | | |
| Skin irritation | | | | | |
| Itching | | | | | |
| Heartburn | | | | | |
| Nausea | | | | | |
| Noticeable odors | | X moldy smell, | | | |
| Sinus congestion | | | | | |
| Sneezing | | X Lawn mower clippings on the exhaust vent, | | | |
| Wheezing | | | | | |
| High stress levels | | | | | |
| Chest tightness | | | | | |
| Eye irritation | | | | | |
| Fainting | | | | | |
| Hyperventilation, shortness of breath | | | | | |
| Problems with contacts | | | | | |
| Fatigue/drowsiness | | | | | |
| Temperature too hot | | X high humidity feels hot | | | |
| Temperature too cold | | X high AirFlow Brake feels cold | | | |
| Other (specify) | | | | | |

- ❖ Do these symptoms clear up within 1-2 hours after leaving work? (Yes) / No

If no, do they clear up overnight? (Yes) / No

If no, do they clear up over the weekend? (Yes) / No

If no, do they clear up after vacation? (Yes) / No

- ❖ If all symptoms do not clear up when away from the building, which symptoms persist when away from your workplace throughout the week? _____

_____

- ❖ Have you sought medical attention for your symptoms? Yes / (No)

If yes, please describe: _____

- ❖ Do you have any allergies or other health problems that may account for any of the listed health symptoms? Yes / (No)
- ❖ If yes, please describe: _____

- ❖ Have any of your symptoms reduced your ability to work, caused you to stay home from work or caused you to leave work early? Yes / (No)

If Yes, please explain: _____

- ❖ How many hours per day do you typically spend in this building? 7

- ❖ How many hours per day are you at your workstation? 5

- ❖ Do any of your co-workers have similar symptoms of which you are aware? Yes / No

**5. Indicate if any of the following apply to you.** *(circle all that apply)*

Wear contact lenses

Operate video display or computer terminals How many hours per day? 5

Operate photocopier machines at least 10% of the work day

Operate other office machines or equipment List: _____

Use any chemical substances such as cleaners, solvents, etc.

6. **Have there been any renovation/demolition-related activities occurring in or near your work area within the past week?** (i.e., new carpeting, painting, new office furniture, HVAC work, etc.) Yes / (No)

Yes / No If Yes, Please list: _____

7. **Has there been any evidence of water leaks or visible signs of moisture in and around your area?**

Yes / (No) If Yes, Please describe: _____

8. **Is your office near a laboratory?**

Yes / (No) If Yes, Please describe: _____

9. **Briefly describe your primary job tasks:**

Research

Do any of these tasks produce dust or odor or use toxic substances? Yes / (No)

If Yes, please list or describe: _____

10. **Do you have an idea as to what is the cause of symptoms in your workplace?** Yes / No

If Yes, Please describe: No humidification control

11. **Can you offer any other comments or observations that may be helpful in determining the environmental condition within your workplace?**

Noisy Fans

No humidication control

Lawn mower clippings and dirt fly through exhaust vents

Wide swings in humidity throughout day (resets every day)

**Thank you for completing this form.**

**We will use your information to assist with investigating symptoms in your workplace.**

# IAQ questionnaire

Answer all questions or indicate if the question does not apply to your situation. Provide as much information as you feel necessary to adequately describe your indoor air quality situation.

# Contact information (optional)


**Your Name** **Dr. Christine Cole**

**Job Title:** **Research Associate**

**Department:** **Clemson Textiles/MSE**

**Building/room #:** **500C Lebanon Rd**

**Phone:** **864-646-8454**

**Email*:*** **cwjrv@clemson.edu**


1. **Briefly describe your air quality concerns including the specific location(s) of the concern:**

Mold and mildew growth on research materials and building surfaces

Excessive moisture which forces us to take exceptional measures with research materials

Uncomfortable temperatures and humidity levels year round

2. **Indicate if you frequently have any of the following complaints concerning the indoor air quality at your building.** *(circle all that apply)*

Dusty

Noisy

Stuffy Air

Moldy or musty odors YES

Visible mold YES

Stuffy Air

Crowded work area

Too hot YES

Too cold YES

Too dry YES

Too humid YES

Drafty

Vibration

Other _____

_____

**3. When did these problems begin and when do they occur?**

- Month/year when problem began: We moved in two years ago. Problems existed then_____ _____
- What time of day do you experience the problem? *(circle one)* morning / afternoon / all day YES
- Are there specific day(s) of the week that you experience the problem? *(circle all that apply)*

Monday / Tuesday / Wednesday / Thursday / Friday / Saturday / Sunday Problems are constant

- Is there a specific time of year that you experience the problem? Yes/No

Specify when: Building problems exist year round_____ _____

**4. What health symptoms have you experienced?** Check any symptoms you are experiencing in your building.

| **Symptom** | **Occasionally** | **Frequently** | **Not related to building** | **Appears after arrival** | **Increases after arrival** |
|---|---|---|---|---|---|
| Difficulty in concentrating | | | | | |
| Dry or sore throat | YES | | | | |
| Aching joints | | | | | |
| Muscle twitching | | | | | |
| Back pain | | | | | |
| Hearing problems | | | | | |
| Dizziness | | | | | |
| Headache | | | | | |
| Dry, flaking skin | | | | | |
| Discolored skin | | | | | |
| Skin irritation | | | | | |
| Itching | | | | | |
| Heartburn | | | | | |
| Nausea | | | | | |
| Noticeable odors | | | | | |
| Sinus congestion | | YES | | YES | YES |
| Sneezing | YES | | | YES | YES |
| Wheezing | | | | | |
| High stress levels | | | | | |
| Chest tightness | | | | | |
| Eye irritation | | YES | | YES | YES |
| Fainting | | | | | |
| Hyperventilation, shortness of breath | | | | | |
| Problems with contacts | | | | | |
| Fatigue/drowsiness | | | | | |
| Temperature too hot | YES | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Temperature too cold | | YES | | | |
| Other (specify) | | | | | |

- Do these symptoms clear up within 1-2 hours after leaving work? Yes / No Generally

If no, do they clear up overnight? Yes / No

If no, do they clear up over the weekend? Yes / No

If no, do they clear up after vacation? Yes / No

- If all symptoms do not clear up when away from the building, which symptoms persist when away from your workplace throughout the week? _____

_____

- Have you sought medical attention for your symptoms? Yes / No YES

If yes, please describe: Prescribed steroids_____

_____

- Do you have any allergies or other health problems that may account for any of the listed health symptoms? Yes / No NO
- If yes, please describe: _____

- Have any of your symptoms reduced your ability to work, caused you to stay home from work or caused you to leave work early? Yes / No

If Yes, please explain: Caused me to leave work early_____

_____

- How many hours per day do you typically spend in this building? variable

___

- How many hours per day are you at your workstation? _____

- Do any of your co-workers have similar symptoms of which you are aware? Yes / No YES

**5. Indicate if any of the following apply to you.** *(circle all that apply)*

Wear contact lenses

Operate video display or computer terminals How many hours per day?6-8 _____

Operate photocopier machines at least 10% of the work day

Operate other office machines or equipment List: _____

Use any chemical substances such as cleaners, solvents, etc.

6. **Have there been any renovation/demolition-related activities occurring in or near your work area within the past week?** (i.e., new carpeting, painting, new office furniture, HVAC work, etc.) Yes / No NO

Yes / No If Yes, Please list: _____

7. **Has there been any evidence of water leaks or visible signs of moisture in and around your area?**

Yes / No If Yes, Please describe: **Only mold and mildew**

8. **Is your office near a laboratory?**

Yes / No If Yes, Please describe: **YES Lab is part of open space**

9. **Briefly describe your primary job tasks:**

Finding research funding, performing on research projects

Do any of these tasks produce dust or odor or use toxic substances? Yes / No NO

If Yes, please list or describe: _____

10. **Do you have an idea as to what is the cause of symptoms in your workplace?** Yes / No

If Yes, Please describe: YES Poor control of HVAC system_____

_____

11. **Can you offer any other comments or observations that may be helpful in determining the environmental condition within your workplace?**

**We have supplied Facilities on several occasions with detailed data logger results on temperature and humidity conditions in the building. The data logger documents the temperature and humidity continuously over long periods.**

**The data clearly show that the temperature and the humidity cycle predictably within the building. These conditions are ideal for the growth of molds.**

**Thank you for completing this form.**

**We will use your information to assist with investigating symptoms in your workplace.**

# IAQ questionnaire

Answer all questions or indicate if the question does not apply to your situation. Provide as much information as you feel necessary to adequately describe your indoor air quality situation.

# Contact information (optional)

| | |
|---|---|
| **Your Name** | **Deborah K. Lickfield** |
| **Job Title:** | **Research Associate** |
| **Department:** | **Materials Science and Engineering** |
| **Building/room #:** | **Clemson Textiles Lab, Bldg C, 500 Lebanon Road, Pendleton SC** |
| **Phone:** | **864-646-8454** |
| **Email*:*** | **dlickfi@clemson.edu** |

1. **Briefly describe your air quality concerns including the specific location(s) of the concern:**

   Depending on the weather outside, it may so humid in the building that our papers and fabrics (upholstery, lab coats, research materials) are perceptively damp to the touch, and our certain of our critical dry chemicals become clumped if not stored in desiccators. At some times during the year it may be so cold inside the building that one's ability to concentrate on work is impeded by the shivering response of one's body. Sniffling, sneezing and coughing are frequently aggravated by the humidity and/or temperature in the building**.** Further, we are always aware, and therefore careful, that any surface we touch or textile material that may have been in storage for a period of time might be supporting active mold growth.

2. **Indicate if you frequently have any of the following complaints concerning the indoor air quality at your building.** *(circle all that apply)*

| | |
|---|---|
| ~~Dusty~~ | ~~Too hot~~ |
| Noisy | Too cold |
| Stuffy Air | ~~Too dry~~ |
| Moldy or musty odors | Too humid |
| Visible mold | ~~Drafty~~ |

Stuffy Air ~~Vibration~~

~~Crowded work area~~

Other _____

_____

**3. When did these problems begin and when do they occur?**

- Month/year when problem began: All issues with exception of the visible mold growth began upon occupancy of the building, 10/1/2014. Mold growth was discovered approximately 9 months later – summer 2015
- What time of day do you experience the problem? *(circle one)* morning / afternoon / all day
- Are there specific day(s) of the week that you experience the problem? *(circle all that apply)*

Monday / Tuesday / Wednesday / Thursday / Friday / Saturday / Sunday

- Is there a specific time of year that you experience the problem? Yes/No

Specify when: Basically we are subject to the outside weather. It is always cold but only truly uncomfortable in winter. It is always humid but only miserably so (%R.H. >75%) during humid months. Mold growth is year round. Noise is constant – my desk is next to air exchange and the roar (which interfers with normal conversations and phone calls) is constant

**4. What health symptoms have you experienced?** Check any symptoms you are experiencing in your building.

| Symptom | Occasionally | Frequently | Not related to building | Appears after arrival | Increases after arrival |
|---|---|---|---|---|---|
| Difficulty in concentrating | | | | | |
| Dry or sore throat | | | | | |
| Aching joints | | | | | |
| Muscle twitching | | | | | |
| Back pain | | | | | |
| Hearing problems | | | | | |
| Dizziness | | | | | |
| Headache | | | | | |
| Dry, flaking skin | | | | | |
| Discolored skin | | | | | |
| Skin irritation | | | | | |
| Itching | | | | | |
| Heartburn | | | | | |
| Nausea | | | | | |
| Noticeable odors | | | | | X |
| Sinus congestion | | | | | |
| Sneezing | | | | | X |
| Wheezing | | | | | |
| High stress levels | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Chest tightness | | | | | |
| Eye irritation | | | | | |
| Fainting | | | | | |
| Hyperventilation, shortness of breath | | | | | |
| Problems with contacts | | | | | |
| Fatigue/drowsiness | | | | | |
| Temperature too hot | | | | | |
| Temperature too cold | | | | | |
| Other (specify)<br><br>Coughing spells | | | | | X |

- Do these symptoms clear up within 1-2 hours after leaving work? Yes / No

If no, do they clear up overnight? Yes / No somewhat

If no, do they clear up over the weekend? Yes / No somewhat

If no, do they clear up after vacation? Yes / No somewhat

- If all symptoms do not clear up when away from the building, which symptoms persist when away from your workplace throughout the week? Coughing, sneezing

- Have you sought medical attention for your symptoms? Yes / No

If yes, please describe: _____

- Do you have any allergies or other health problems that may account for any of the listed health symptoms? Yes / No
- If yes, please describe: _____

- Have any of your symptoms reduced your ability to work, caused you to stay home from work or caused you to leave work early? Yes / No

If Yes, please explain: _____

- How many hours per day do you typically spend in this building? 6 - 10

- How many hours per day are you at your workstation? 6 - 10

v Do any of your co-workers have similar symptoms of which you are aware? Yes / No

**5. Indicate if any of the following apply to you.** *(circle all that apply)*

Wear contact lenses

Operate video display or computer terminals How many hours per day? 6 - 10

Operate photocopier machines at least 10% of the work day

Operate other office machines or equipment List: _____

Use any chemical substances such as cleaners, solvents, etc.

**6. Have there been any renovation/demolition-related activities occurring in or near your work area within the past week?** (i.e., new carpeting, painting, new office furniture, HVAC work, etc.) Yes / No

Yes / No If Yes, Please list: _____

**7. Has there been any evidence of water leaks or visible signs of moisture in and around your area?**

Yes / No If Yes, Please describe: _____

**8. Is your office near a laboratory?**

Yes / No If Yes, Please describe: this building IS a laboratory

**9. Briefly describe your primary job tasks:**

researching scientific literature, operating processing equipment related to fibers, fabrics and yarns; conducting wet chemistry testing and trials related to fibers, fabrics and yarns

Do any of these tasks produce dust or odor or use toxic substances? Yes / No

If Yes, please list or describe: use of organic solvents produces odors, processing of fibers and yarns produces some dust

**10. Do you have an idea as to what is the cause of symptoms in your workplace?** Yes / No

If Yes, Please describe: I believe it is related to the uncontrolled excessive humidity and temperature swings

**11. Can you offer any other comments or observations that may be helpful in determining the environmental condition within your workplace?**

We have already provided ample evidence, through an electronic monitoring device, that temperature and humidity swings throughout the building are in fact occurring on a 24 hour basis and that those patterns are repeated over many weeks. We have provided visual evidence and physical samples to numerous people of significant active microbial growth on materials needed for our work and on surfaces of our work environment.

**Thank you for completing this form.**

**We will use your information to assist with investigating symptoms in your workplace.**