

## Příloha č. 1

### Thermal Comfort Questionnaire

This questionnaire is a part of my research for my Master's Thesis, which is focused on the upgrade of a room L4 into a higher standard in terms of classification of cleanrooms and indoor conditions to enable new installations of equipment and use of the room. My aim is to analyse current conditions of this place and adjacent cleanrooms with both measurements and a questionnaire and to propose solutions and recommendations for future refurbishment.

The purpose of this questionnaire is to collect information about the thermal comfort experienced in laboratories. It aims to examine the way people perceive thermal conditions whilst working in cleanrooms. All questions are related to the work and time spend in cleanrooms.

This is an anonymous questionnaire, and the responses will be analysed and discussed only within my Master's Thesis submitted to the Czech Technical University in Prague, Faculty of Civil Engineering. This questionnaire will only take 5 minutes to complete. Thank you very much for your time.

1) Where do you usually do the most of your work in cleanrooms? (Please check the most suitable answer)

- L1/L2
- L3
- L4
- Other – please specify

2) What is the combination of clothing that you usually wear in laboratories?

- Long sleeve shirt (or T-shirt), trousers + cleanroom clothing
- Short sleeve shirt (T-shirt), trousers + cleanroom clothing
- Sweater or light jacket, long or short sleeve shirt (T-shirt), trousers + cleanroom clothing
- Short sleeve shirt (or T-shirt), shorts (or skirt) + cleanroom clothing
- Other

3) What is usually your activity level?

- Seated
- Light activity standing
- Higher activity standing

4) What is your general thermal sensation of your workplace?

- Hot
- Warm
- Slightly warm
- Neutral
- Slightly cool
- Cool
- Cold

5) What is your general humidity perception of your workplace?

- Very dry
- Dry
- Slightly dry
- Neutral
- Slightly humid
- Humid
- Very humid

6) How would you best describe the source of your discomfort? (Please check more choices if needed)

- Temperature too high
- Temperature too low
- Humidity too high
- Humidity too low
- Air movement too high
- Air movement too low
- Heat from the lab equipment
- Vertical temperature stratification
- Cold surfaces (working table, floor, walls etc.)

- My place is hotter than other places in the same room
- My place is colder than other places in the same room
- Clothing policy is not flexible

7) Is there any particular time when this discomfort occurs (summer, winter, morning, midday, afternoon, evening etc.)? If yes, please specify.

- If yes, please specify

8) How do you need to change your behaviour because of your discomfort? (Please check more choices if needed)

- Put on an extra layer of clothing
- Take off a layer of clothing
- Drink more water before entering or after leaving cleanrooms
- Move the workplace to a more suitable place
- Start doing a higher activity (start walking)
- Leave the place early or take a break during your working time because of a high discomfort (warm, cold, thirsty etc.)
- Often getting sick after stay in cleanrooms

9) What is the biggest disadvantage in working in a clean room environment? (Please check more choices if needed)

- Lower thermal comfort
- Temperature and humidity is dependent on the equipment used and not adjusted to human needs
- Lack of a daylight or the visual contact with outdoor environment
- Clean clothes policy
- The similar temperature and humidity across the year, which do not respond to the outdoor environment
- Other

10) Would you like to change the level of a temperature in your workplace, but you cannot because of the equipment sensitivity?

- Yes, I would like to have a higher temperature
- Yes, I would like to have a lower temperature
- No, the temperature is fine.

11) Would you rather change the level of a humidity in your workplace, but you cannot because of the equipment sensitivity?

- Yes, I would like to have a higher humidity
- Yes, I would like to have a lower humidity
- No, the humidity is fine.

12) Would you evaluate your work in clean rooms as physically demanding?

- Yes
- No

13) Would you evaluate your work in clean rooms as psychologically demanding?

- Yes
- No

14) Please describe any other issues related to your working environment you might have.

#### Demographics questions

15) Gender:

- Female
- Male

16) Age:

- under 20 years old
- 21-30 years old
- 31-50 years old
- 51 years and over

This is the end of this questionnaire. Thank you very much for taking part in my study.

If you have any further questions about any aspect of the study, please contact:

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