FLUORESCENT LIGHTING

In my four years as an office worker, I have become sensitive to the fact that my work undermines my health. I leave work drained and tired, often with a headache; my shoulders and nect tied in knots and my back aching.. Minor complaints, familiar complaints. So what else is new? My sense of well-being is something I have to preserve. I've begun looking into possible sources of my complaints.

One of these is fluorexcent lighting, the cool white glare that illuminates almost all commercial buildings and institutions and is certainly predominant at UBC. Three factors seem to come into account when examining the detrimental aspects of fluorescent lighting: deficiency in radiation in the ultraviolet part of the spectrum (see chart), flicker and the colour temperature of the bulbs, and actual light level.

Various experiments connected with color-corrected ("irradiated") light shows a shorter reaction time to light and sound, less eye strain and improved working capacity than under fluorescent light. One experiment conducted in the Soviet Union found that workers under color-corrected light got fewer colds. There has also been a correlation between calcium absorption and ultraviolet light, that ultraviolet light is necessary for proper absorption of calcium - a factor to consider when so many workers spend so many hours under artificial lighting conditions.

Flicker is the rise and fall in brightness in a lamp because it is connected to an alternating supply of current. In fluorescent lamps the flicker occurs 120 times per second. High frequency light signals cause an extra loaidng of the nervous system leading to early fatigue.

Since 1940 the average level of light has increased from 35 to 125 foot-candles. (A footcandle is equal to the light cast by one candle at the distance of one foot.) The standards for light levels are set by the Illuminating Engineering Soceity (IES) in the States - Canada follows the 1970 IES recommendations. 80% of IES members are engineers, architects and lighting-equipment experts, all with a vested interest in "the more light the better" philosophy.

Workers in Woodward Library have long complained of irritation because of lighting in that building - walking into Woodward from outside is like entering another dimension, the atmosphere seems to be made of a different substance. Formal complaints were filed with the Administration and Worker's Compensation Board resulting in the installation of baffles to cut the glare at the circulation desk sometime this week. This is a short term measure that will help alleviate the problem to some extent but I think there should be further consideration of the quality and level of lighting in all buildings and possible alternatives to the present use of fluorescent lighting. For these people in smaller offices you may wish to experiment with a desk lamp as opposed to using the overhead fluorescent lights.

If anyone has information on, experience with fluroescent lighting or would like to tak e part in the research, please call Peggy at [redacted] or [redacted].