

DATE: November 17, 2010

TO: Student Sustainability Committee
C/O Isaac Corzine

FROM: Charles Hassell

SUBJECT: Request for the purchase and testing of the Activeion Ionator
EXP Cleaning System

Project Description:

The Facilities and Services, Building Services section is looking into the initial purchase of (20) Activeion Ionator EXP cleaning systems to use and evaluate in daily cleaning operations in major buildings on the University Of Illinois Urbana-Champaign campus. If the evaluation proves to be successful, we would purchase more units (100-150) next year 2011-2012 to further expand the use of the Ionators in university buildings. The purchase and use of these units will move Building Services closer to becoming green in our cleaning operations. In addition to the Activeion units, we will also purchase one ATP hygiene monitoring device. This device will be used in the evaluation of the Activeion system to monitor how well the Activeion units clean and sanitize various surfaces.

These units have been tested and proven at Georgia Tech University in Atlanta, Georgia. Georgia Tech ran a pilot program for 12 months that resulted in a substantial operating cost savings in the buildings the units were tested in. Georgia Tech also used the ATP meter to monitor how well the Activeion system was working. They found that the units were highly effective in killing living organism present on surfaces found in restrooms, offices, computer labs, etc. Activeion works by doing 4 functions:

- **First function - Charge:** When the trigger is pressed, the water flows through a water cell that applies a slight electrical charge to the tap water.
- **Second function - Clean:** When applied directly to a surface, the ionized water helps lift the dirt from the surface like a magnet, enabling it to be wiped away.
- **Third function - Transform:** The water passes through an ion exchange membrane, where the ionized water is separated into an oxygenated mixture of positively and negatively, electrically charged nano bubbles.
- **Fourth function - Kills Germs:** Before the water exits the nozzle, a slight electric field is applied allowing the water to carry a low level electric field to the surface where the germs may be living. This low level electric field kills more than 99.9% of harmful

germs. The end result is no offensive odor, no residue and germs are killed on an average of six seconds.

The Building Services section would like to put these units in the field and test them for 12 months to evaluate how well they clean and evaluate the cost savings.

Budget & Funding:

The cost of the Activeion units are	\$369.00 Each X 20 =	\$7,380.00
The cost of the ATP (Hygiene Monitor)		\$1,107.17
A pack of 200 swabs		<u>\$193.69</u>
Total start up cost =		<u>\$8,680.86</u>

The cost to expand after the initial testing is complete: \$36,900.00 - \$55,350.00

Facility and services is requesting 100% funding from the Student Clean Energy Committee for this project. If 100% approval for this project is not approved; the project would still proceed, however, it would delay the project for one or two years or when additional funds become available.

Fundraising:

No fundraising is needed for this project.

Timeline:

Once approved, the pilot program would start immediately with the first phase completed in 6 months. Since the product being tested has proven success at other Universities, the goal of the Building Operation Section is to incorporate the Activeion system in daily cleaning operations campus wide.

Energy, Environmental, Social and Economic Impact:

The ActiveIon Ionators will reduce water usage because no water will be needed to mix chemicals. Using this product will also have a positive impact on the indoor air quality because there will be no offensive odors. The economic impact will be the cost of the chemical savings that no longer have to be purchased. The social impact is that we are cleaning for health and a healthy learning and working environment.

On behalf of the Facilities and Services Building Services, I would like to thank the committee for the opportunity to participate in this sustainability project and we will look forward to your decision.

Sincerely,

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