FACILITIES NEEDS ASSESSMENT APPLICATION
Fall 2019

Name of Person Submitting Request:	**Sheri Lillard & Amy Avelar**
Program or Service Area:	**Chemistry**
Division:	**Science**
Date of Last Program Efficacy:	**Spring 2016**
What rating was given?	**Continuation**
Amount Requested (if available):	**$125,000**
Strategic Initiatives Addressed:	6. Provide exceptional facilities: Maintain a safe and secure environment.
Needs Assessment Resources (includes Strategic Initiatives):	https://www.valleycollege.edu/about-sbvc/campus-committees/academic-senate/program-review/needs-assessment.php

NOTE: To facilitate ranking by the committee, submit separate requests for each project; however, multiple items can be submitted as one request if it is required that the projects are packaged together.

You are required to meet with Robert Jenkins--Director, Facilities, Maintenance, & Operations—by WEDNESDAY, OCTOBER 9 if you are submitting a Facilities Needs Request. 909-384-8662 or rjenkins@sbccd.cc.ca.us.

Please provide the date of your meeting:

Meeting with Bob Jenkins, Kevin, Casey Thomas, and Amy Avelar: 9/26/19 at 11:30 am

Capital Improvement ☐

Brief Statement of Request:

Replace control system and mechanical instrumentation for fume-hood ventilation in the Physical Science building.

Are there alternative funding sources? (for example, Department, Budget, Perkins, Grants, etc.)

Yes ☐ NO X

If yes, what are they? _____

1. Provide a rationale for your request. (Explain, in detail, the need for this project.)

We have been told by our maintenance staff that the mechanical aspects of the ventilation system and the control system are obsolete. Updated and reliable ventilation within the laboratories is a critical safety issue. The Physical Science building opened in 2011, and while only 8 years old, we have had repeated issues with the ventilation system that is tied to the fume hoods in the laboratories. This semester, the system malfunctioned again causing us to cancel lab sessions in several labs for two days. Our understanding is that the instrumentation that regulates the flow of air is difficult to repair. Related to this, the control system does not permit control of individual areas, which both affects ability the to repair broken components and impedes modern energy-management.

Continued maintenance on an obsolete system is expensive and disruptive. Taking a pro-active stance, and replacing the system now is a better alternative than a using a band- aid approach. Given that we are expected to occupy this relatively new building for 50 years, and that proper ventilation is a safety issue, updating both the mechanical aspects and the control system should be performed to ensure a safe and reliable learning and occupational environment.

2. Indicate how the content of the department/program's latest Efficacy Report and/or current EMP supports this request and how the request is tied to program planning. *(Directly reference the relevant information from your latest Efficacy Report and/or current EMP in your discussion.)*

Our 2018-2019 EMP states a goal of increasing our majors and STEM degrees. Without updated and reliable ventilation in our laboratories, we cannot run our lab classes. So not only would we be prevented from increasing our majors and degrees, we risk having to cancel lab courses due to improper ventilation. As Chemistry is a laboratory-based science, we currently offer about 50 labs per week (Fall 2019) with 58 labs per week scheduled for Spring 2020 (including labs on Fri/Sat). Almost **100%** of our classes in Fall 2019 have lab, and this lab component is critical. It is a requirement for articulation to 4-year institutions, as well as serves as a prerequisite for allied health programs such as nursing. We are not in a position to simply not offer lab; it would decimate our program, and impact the educational paths of hundreds of students per semester.

3. Indicate any additional information you want the committee to consider *(for example, regulatory information, compliance, updated efficiency, student success data, planning, etc.).*

This is primarily a safety issue. There must be adequate ventilation through the laboratory fume hoods when student are working with certain volatile chemicals. If an individual fume hood's air flow isn't functioning, we can prohibit use of that hood. However, there are times when ventilation malfunction requires us to cancel entire labs, because the air flow in entire rooms is disrupted. This requirement impacts student learning, because we do not have the capacity to permit make-up labs. If we have to shut down a lab session due to inadequate ventilation, the students miss that time.

4. What are the consequences of not funding this facilities request?

Potentially unsafe environment, continued costly maintenance on obsolete equipment, cancelling lab sessions while fume-hood systems are being repaired, and a worst-case scenario of not offering lab at all (in the case of a total system failure), thus impacting hundreds of students.