



# Operational Guidelines for Educational Facilities — Maintenance

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**O**perational Guidelines for Educational Facilities—Maintenance, is part of APPA's operational guideline trilogy, which also includes Custodial and Grounds. It evolved from the *Maintenance Staffing Guidelines* first published in 2002, but as the title would indicate, it is now more comprehensive and focuses on more than staffing.

We conducted a survey of APPA members prior to writing this second edition, and we found that significant changes occurring in the

past decade would require that these guidelines would accomplish a number of objectives, including:

- Establishing an institutional priority wheel of Stewardship compared to Service
- Inclusion of the APPA Facilities Performance Indicators (FPI) survey data as an FTE determinate
- An improved outline for a department's Standard Operating Procedure (SOP) manual
- The evolution of contracting and partnerships from what was once all-or-none "Outsourcing"
- Expanded discussion of staff development, PM programs, computerized maintenance management systems (CMMS), and customer service
- Compliance, safety, and sustainability are introduced, outlined, and interwoven. Even checklists are included. These topics have also been incorporated as formal criteria within the maintenance levels matrix

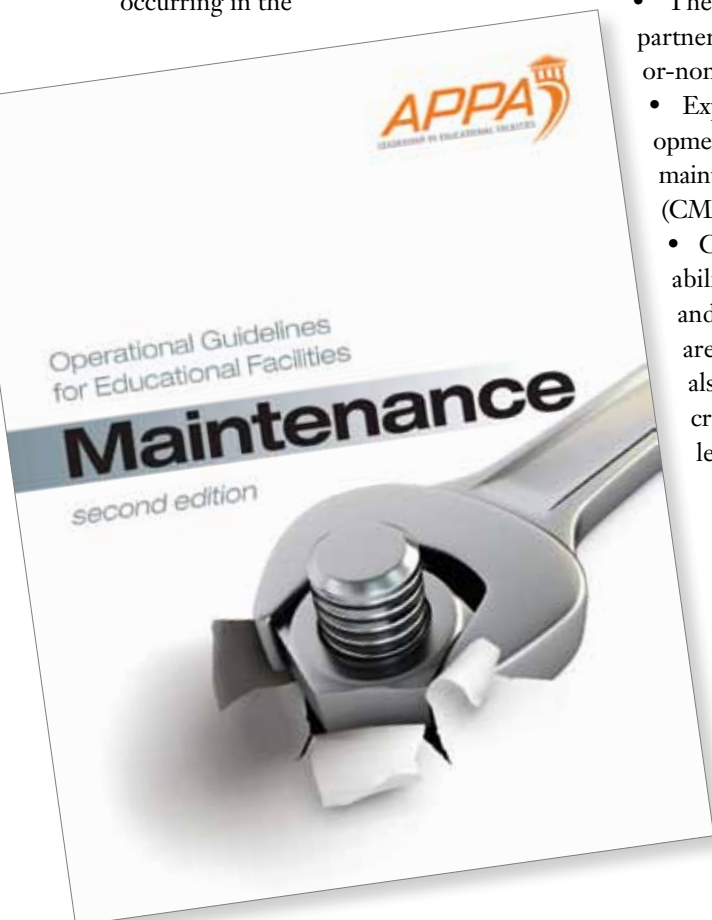
One hope and common theme of the 14 contributing authors was to assure that our concepts and criteria were explained in a way that even someone outside of the facilities profession could easily understand the material, and thus become supportive of the concepts. It is only through establishing this

common understanding and transparency that a facilities department will garner institutional wide support and acceptance.

## HERE'S A LOOK AT THE BOOK

The book begins with a general chapter about building maintenance that recites the established definitions of maintenance types and goes on to discuss some of the many changes that have happened over the past decade. Technology has brought about higher expectations concerning response time. Sustainability needs and awareness have pressured for better building and departmental performance in that regard. The balance of service and stewardship can be different for every institution. Methods of establishing that balance are discussed along with a "priority wheel" that commences with safety and compliance.

The second chapter updates the master chart establishing the "1 to 5 levels of maintenance" criteria, enhancing them to reflect the importance of compliance and sustainability. There is a cost and commitment associated with each level of performance. Most institutions aspire to a "managed care (3) level" or above. Customer expectations remain high and are becoming even more demanding, but attaining the resources to maintain those higher levels of maintenance have become extremely difficult. The table in this chapter is a great tool to actually chart where your institution stands in regard to each of the attributes. Plotted over



time, it is a great reference and indication of the direction to which your facility's performance is migrating.

The next three chapters discuss the different methodologies of determining maintenance staffing levels, starting with a mathematical interpretation along with adjustment factors and applied case studies. The next chapter in this series applies the theory of zero-based budgeting, and the third chapter approaches staffing statistically from a data-driven perspective that incorporates APPA's Facilities Performance Indicator (FPI) survey data, and allows for some peer comparisons.

Each institution's formula for human resource needs may be a bit different dependent upon specific personnel, contractual agreements, and naturally the surrounding area and nature of the institution. Quality expectations will also affect the outcome of these calculations. But these chapters are a great starting point to initially establish staff levels, and are also a good tool for justifying or adjusting current and future staffing levels.

Chapter 6 dives into the topic of "staff development" and gives a terrific outline for a facilities department's Standard Operating Procedures (SOP) manual. It then goes into further details related to hiring, orientation, training, and succession planning.

Chapter 7 broadens the guideline's outlook to include topics related to staffing considerations for auxiliaries and K-12. In this chapter the three Ts related to "customer need differentiators" are discussed: Technology, Touch, and Time. These actually have broader application than just the auxiliary and K-12 environment.

Chapter 8 reframes outsourcing from an all-or-none scenario and discusses the benefits related to developing "contracting and partnership" relationships. For many plants this allows them to focus their in-house resources and expertise in a more strategic manner. It is a practice that appears to be gaining popularity from the structures of a decade ago. When an institution looks at certain HR

ratios, these relationships can have some benefits, as well as add flexibility.

Chapter 9 reviews "preventive maintenance" and how to implement a strong PM program, then goes on to discuss hot topics related to commissioning and retro-commissioning.

Computerized maintenance management Systems (CMMS) benefits and attributes are analyzed in chapter 10, but considerations are also discussed concerning direct interface with other software systems to enhance this management tool.

Maybe one of the most overlooked functions of a department is assuring not just that the job gets done, but that the "perception of customer service" is



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achieved. Chapter 11 touches on some simple ways to gather feedback and to make sure the customer knows that you have tried to address their concerns, and that your department knows whether the work was completed successfully.

"Compliance, Safety, and Sustainability" are thoroughly discussed in chapter 12. When you think back over the years, things that were once just good practice concerning sustainability—like recapturing chlorofluorocarbon (CFCs) and recycling certain materials—are now in fact compliance mandates that have legal ramifications. This chapter is a major addition to the guideline. These practices must be accounted for within budgets

and staffing allocations. We think that the compliance checklists provided within this chapter will be invaluable.

This chapter also begins to explore facilities management practices that are now crossing over into the teaching curriculum as "living and learning practices" become more commonplace. If a facilities department can cement this type of relationship in a positive way, it will become an invaluable learning experience for the student and a win-win proposition for all concerned.

The book concludes with a robust chapter about "Coordinating Organizational Structure and Position Descriptions to Develop an Organization with Succession Planning and Ongoing Performance Potential." Chapter 13 has sample job ladders as well as samples of progressive position descriptions.

We have tried to capture any terminology that may be new to the reader in the definitions appendix for easy reference. Most chapters define these items within the body during their first appearance, but for ease of reference, we also pulled together a definitions section that is pretty extensive.

## TRILOGY

Taken as a whole, these guidelines should lay the groundwork for a department organization that exudes best management practices, and performs the level of maintenance to which the institution aspires, while considering the institution's resources.

It was a privilege to chair this edition and contribute with this generous and knowledgeable group of authors: Matt Adams, Bob Beckstrom, Alan Bigger, Jeff Dean, Jim Fischer, Robert Fleming, Jim Jackson, Victoria Justice, Jon Miller, Eric Ness, Kim Piechuta, Rick Pretzman, Phillip Waier, and Ted Weidner. §

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