

STERLING ANDREWS ENGINEERING PROVIDES A FULL RANGE OF SERVICES TAILORED TO MEET THE NEEDS OF INDUSTRIAL REFRIGERATION CONTRACTORS. WE UNDERSTAND THAT STAFFING UP FOR A SINGLE PROJECT WITH FULL-TIME PERSONNEL IS NOT ALWAYS FEASIBLE, AND THAT SENIOR ENGINEERING STAFF IS A FINITE RESOURCE FOR MANY CONTRACTORS. WE STRIVE TO PARTNER WITH CONTRACTORS TO PROVIDE EFFICIENT, TOP-QUALITY SERVICES TO ENSURE THAT YOUR PROJECT INSTALLATION IS SMOOTH AND STARTS UP PROPERLY THE FIRST TIME. WHEN WE ARE PART OF YOUR TEAM, WE TAKE IT VERY SERIOUSLY THAT WE REPRESENT YOU. OUR SERVICES ARE DESIGNED TO ADD VALUE TO WHAT YOU DO EVERY DAY, FROM THE BIDDING PROCESS TO PROJECT CLOSEOUT.

PROJECT DESIGN

- WE UNDERSTAND THE DESIGN-BUILD PROCESS, AND CAN PROVIDE PLANS AND SPECIFICATIONS FOR YOUR PROJECT, ALLOWING YOU TO PROVIDE VALUE TO YOUR CUSTOMER. OUR PROJECT DESIGN INVOLVEMENT CAN STRETCH FROM INITIAL CONCEPT AND DETAILED DESIGN TO PROJECT COORDINATION AND EXECUTION. HOWEVER, OUR CAPABILITIES AREN'T JUST FOR THOSE WHO NEED COMPLETE PROJECT DESIGN SERVICES. MANY OF OUR CLIENTS HAVE SOME DESIGN CAPABILITIES IN-HOUSE, BUT CAN REALIZE AN ADDED VALUE OF MANY TIMES THEIR INVESTMENT BY ENGAGING STERLING ANDREWS FOR DESIGN REVIEW. THESE SERVICES TYPICALLY COST VERY LITTLE BUT REAP BIG REWARDS BOTH IN CONSTRUCTION COST SAVINGS AND EFFICIENCY IMPROVEMENTS DURING STARTUP AND OPERATION.

PSM DOCUMENTATION

- INDUSTRIAL REFRIGERATION CONTRACTORS ARE VERY FAMILIAR WITH PROCESS SAFETY MANAGEMENT REQUIREMENTS, BUT SOMETIMES NEED HELP IN PROVIDING SOME OF THE NECESSARY DOCUMENTS. WE CAN PROVIDE MANY OF THESE FOR YOU, ALLOWING YOU TO SAVE TIME AND MONEY:
 - PIPING AND INSTRUMENT DIAGRAMS (P&IDs)
 - ENERGY BALANCE
 - RELIEF CALCULATIONS (INCLUDING ANALYSIS OF ALL INLET AND OUTLET PIPING ACCORDING TO ASHRAE 15 REQUIREMENTS)
 - REFRIGERANT INVENTORY
 - VALVE SCHEDULES FOR TAGGING (USED IN DEVELOPMENT/DOCUMENTATION OF STANDARD OPERATING PROCEDURES (SOPs))
- THESE SERVICES ARE OFFERED NOT JUST FOR NEW PROJECTS BUT FOR EXISTING, OPERATING PLANTS

COMPLETE RELIEF SYSTEM ANALYSIS

- RELIEF SYSTEMS ARE ONE OF THE LEAST UNDERSTOOD, BUT MOST IMPORTANT, PARTS OF A REFRIGERATION SYSTEM. PROPER SIZING OF THE SYSTEM IS PARAMOUNT. THIS INCLUDES NOT ONLY CORRECTLY-SIZED (NOT UNDER- OR OVER-SIZED) VALVES, BUT INLET AND OUTLET PIPING, AS WELL AS PROPER SELECTION OF THE CONTROLLING CASE AND RELIEF SCENARIOS. UNDER-SIZING COULD LEAD TO DANGEROUS CONDITIONS, WHILE OVER-SIZING WILL LEAD TO INCREASED PIPING AND VALVE COSTS. WE ANALYZE ALL ASPECTS OF THE SYSTEM, AND HAVE DEVELOPED DETAILED ANALYSIS TOOLS FOR THIS PURPOSE. WE ALSO HAVE THE ABILITY TO USE TOOLS

REQUIRED BY SOME OWNERS, SUCH AS THE IRC AMMONIA RELIEF TOOL. OUR RELIEF ANALYSIS CAPABILITIES EXTEND FAR BEYOND AMMONIA, SO WE ARE READY TO MEET YOUR NEEDS, WHATEVER YOU ARE FACED WITH.

ENGINEERING STUDIES

- WHEN AN OWNER ENGAGES A CONTRACTOR FOR WORK, EVERYONE IS OPTIMISTIC THAT THE JOB WILL GO WELL. IN ORDER TO MAKE THIS HAPPEN AND AVOID FRUSTRATION ON BOTH SIDES, IT'S IMPORTANT TO UNDERSTAND THE TRUE NATURE OF WHAT IS OCCURRING IN SYSTEMS SO THAT A CLEARLY-DEFINED SCOPE OF WORK CAN BE AGREED-UPON. THIS BENEFITS THE OWNER, WHO WANTS A SIMPLE, TURNKEY SOLUTION, AND THE CONTRACTOR, WHO WANTS TO PROVIDE THE BEST SERVICE POSSIBLE WHILE MAKING SURE THAT THE SCOPE DOESN'T CREEP OUT OF CONTROL. THE BEST WAY TO ACCOMPLISH THIS IS THROUGH STUDY OF THE CONDITIONS PREVAILING IN THE PLANT'S SYSTEMS. WITH THIS INFORMATION, THE CONTRACTOR CAN PROVIDE THE OWNER WITH A PROPOSAL THAT INCLUDES EVERYTHING, AVOIDING SURPRISES DURING INSTALLATION. STERLING ANDREWS OFFERS ENGINEERING STUDIES IN MANY AREAS, INCLUDING:

- CONDENSATION ABATEMENT
- SYSTEM ENERGY USE
- RELIEF SYSTEMS (ESPECIALLY EVALUATING VALVE REPLACEMENT REQUIREMENTS)
- HYDRONIC SYSTEM PERFORMANCE
- FEASIBILITY STUDIES
- SYSTEM UPGRADES
- ADDITIONAL LOADS (PIPING, EQUIPMENT, VALVES, AND SYSTEMS)

COMMISSIONING

- ONE VITAL ASPECT OF PROJECT COMPLETION THAT IS OFTEN NEGLECTED IS PROPERLY DOCUMENTING SYSTEM COMMISSIONING. A COMMISSIONING AGENT CAN EVALUATE EQUIPMENT SETTINGS, SYSTEM OPERATION, PIPING SYSTEM INSTALLATION, AND COMPLIANCE WITH PLANS AND SPECIFICATIONS. WE CAN PROVIDE DETAILED COMMISSIONING PLANS TO HELP YOU DOCUMENT THAT COMMISSIONING HAS BEEN CARRIED OUT SUCH THAT BOTH YOU AND THE OWNER ARE ASSURED THAT THE SYSTEM SETTINGS ARE CONSISTENT WITH DESIGN CONDITIONS FOR PROPER OPERATION. TO MAXIMIZE COMMISSIONING EFFECTIVENESS, WE RECOMMEND THAT OUR SERVICES ARE ENGAGED AT THE VERY BEGINNING OF A PROJECT, DURING THE DESIGN PHASE. THIS WILL ENSURE THAT THE SYSTEM IS INSTALLED WITH THE COMPONENTS THAT MAKE PROPER COMMISSIONING POSSIBLE. WHERE THIS ISN'T POSSIBLE, SUCH AS IN CASES WHERE A SYSTEM HAS ALREADY BEEN DESIGNED AND BUILT, WE'LL WORK WITH THE YOU TO DEVELOP PRACTICAL COMMISSIONING REVIEW AND DOCUMENTATION THAT ENSURES YOU WILL SPENDING TIME WORKING ON THE NEXT JOB, NOT SPENDING MONEY ON WARRANTY CALLS.

FOR THESE SERVICES AND MORE, CONTACT US AT:

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