



Answers to questions about structures, ventilation, soil, water, waste, energy, machinery and safety.

## Selecting a private engineer

State regulations now call for plans of animal waste systems, agrchemical containment facilities and petroleum storage sites to be signed and stamped by a registered professional engineer. Most farmers and dealers have little prior experience working with private consultants. Below are some general guidelines and facts to remember when preparing to obtain these engineering services.

First, identify those firms that are knowledgeable and competent in designing the type of system needed and in the associated regulations. Make your initial contacts with these firms early in the planning stages. Ask for and follow up on references of their previous projects. Next, narrow your list to three or four firms and request each of them to prepare a project proposal detailing the services to be provided and who will be responsible for each. Ask at this time for a fee schedule of the various engineering services.

Engineering consultants can provide a wide range of services, from advice on site location and facility requirements, to help with environmental site assessment, regulatory paperwork, facility design, construction review and follow-up. Make your hiring decision based on knowledge, experience, and reputation. Use the fee schedule to break any ties. Choosing a consultant based primarily on fees charged can be a costly mistake in the long run. Apparently higher hourly fees may often be offset by greater experience and time-saving technology like computer-aided design.

Do not expect engineering firms to bid for their services. Bidding often results in problems throughout the design and construction phases of the project. However, engineering fees can often be negotiated after you have chosen the firm to hire. Once hired, the engineer can help you determine what services are essential and which ones may be discretionary, in order to minimize design fees. The engineer may also suggest alternative, less costly ways to obtain some of the services.

After verbally agreeing to the essential items, get a written letter of agreement and contract listing the duties, responsibilities, fee schedule, and other items pertinent to the project. This will reduce chances of later misunderstandings as the project proceeds. Maintain constant communication with the engineer. If you have questions, don't wait for the engineer to contact you.

Finally, plan ahead! The process of planning, design, regulatory approval, and construction is longer than most people realize. Depending on the scope of the project, 12-18 months is typical.

For more information, refer to MU Extension publication WQ224, [Selecting and Working With an Engineering Consultant to Design Animal Waste Management Facilities](#).