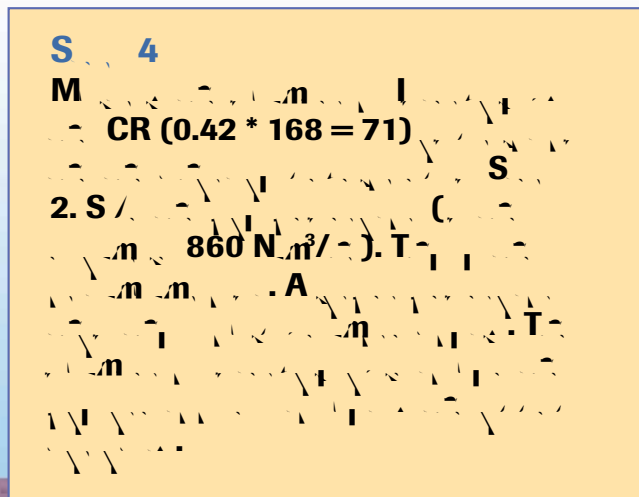
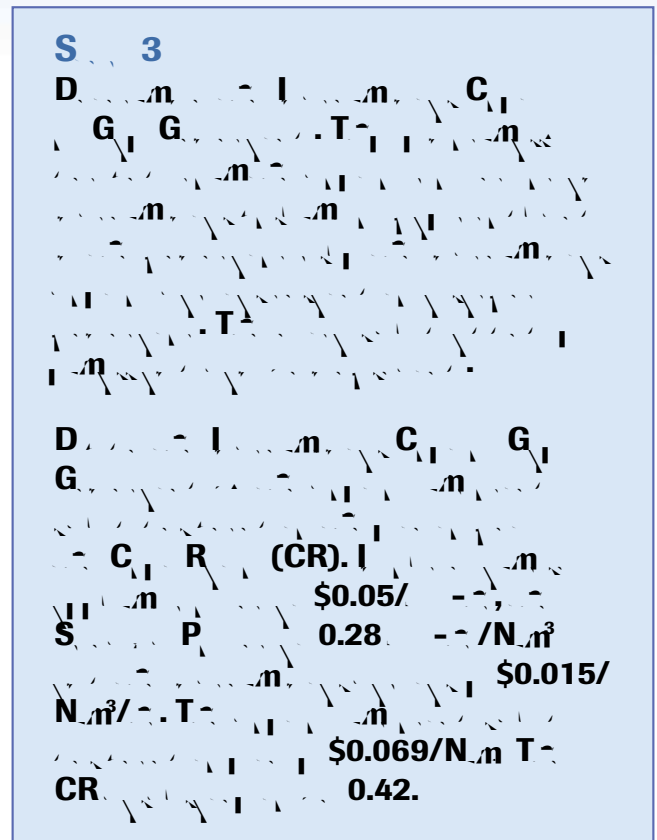
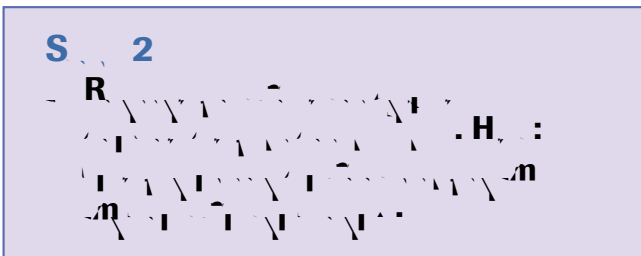
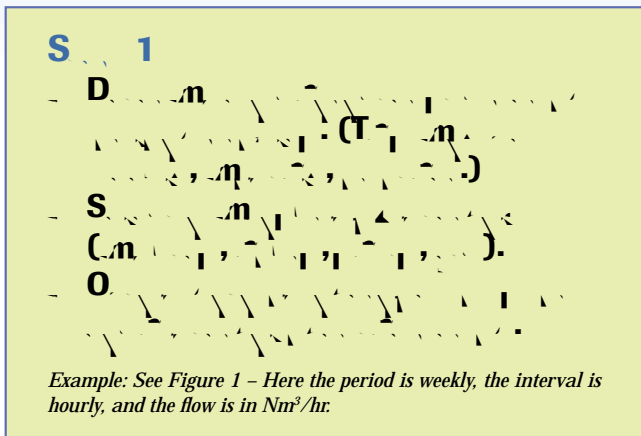
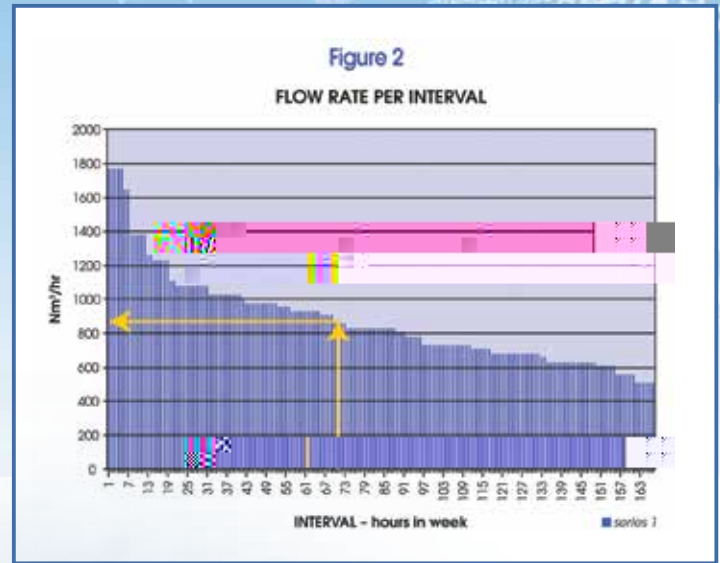
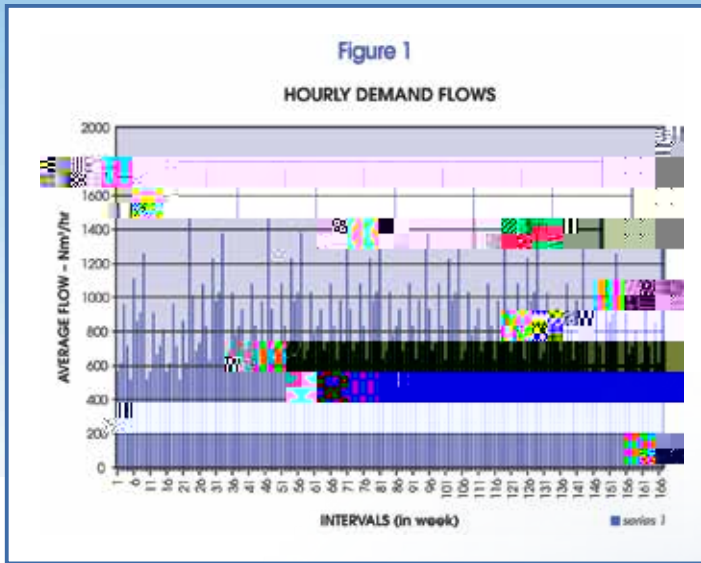


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Nitrogen gas requirements frequently experience significant changes in demand over time. Selecting the proper size of an on-site generator is important to achieve an optimal cost structure. Generally the base load is assigned to a generator and the peak loads to imported liquid nitrogen. The cost of the on-site generated gas is a fraction of the imported liquid, so proper size selection is critical.

Most small liquid-add nitrogen generators do not turn down efficiently, so the power at partial load is nearly the same as full load. Therefore, oversized units waste power when the demand is less than the design flow. On the other hand, the imported liquid is substantially more expensive than the generated gas. Running the generator at partial load may still be cheaper than using liquid for a short period. The following is a "quick" method for proper size selection.





The above example demonstrates a quick method for size selection and is useful for estimating the choice. A number of other factors such as model (frame), breaks in hardware, relative availability of the imported liquid in the area, or long term changes in demand should also be considered when making the final size selection.

This exercise is also useful as a quick method to determine the size selection. For instance, try changing the power cost to see if the plant selection alters significantly.

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