**SQA Plan**

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* System Requirement Review Questions:
  + Reusability
    - Q1. Do the requirements contain software reuse details?
    - Q2. What are the maximum memory requirements for the reused component, and can those requirements?
    - Q3. What are the requirements/design specifications the reused software should meet?
    - Q4. Do the requirements contain remote access to reusable legacy systems?
    - Q5. Do the requirements contain the list of reusable objects/components which exist already?
    - Q6. What kind of strategy or policy does the project adopt to reuse software?
    - Q7. How much percentage of software can be reuse in the project?
    - Q8. What kind of software reuse methodology does the project adopt?
* System Design Review Questions:
  + Reusability
    - Q1. What are the interfaces between the reused software and the operator?
    - Q2. What are the interfaces between the reused software and the plant system/environment?
    - Q3. How fast can the reused software process data and is that rate satisfactory for the new application?
    - Q4. What software routines or procedures must run prior to the execution of the reused software?
    - Q5. What hardware elements must be initialized prior to executing the reused software?
    - Q6. What schema does the project adopt to reuse software components in design phase?
    - Q7. Does the each component in the design have specific, clear and well defined operations in the each interface?
    - Q8. Is each component capable of handling repeated usage?
* System Requirement Review Questions:
  + Usability
    - Q1. Based on existing documentation/information, do you understand the system in the context of each of the views in the system engineering hierarchy?
    - Q2. Is system output and input adequately defined?
    - Q3. Have expert and novice modes of interaction been defined?
    - Q4. Have important interfaces to all system elements been described?
    - Q5. Is the behaviour of the software consistent with the information it must process and the functions it must perform?
    - Q6. Has the UI been designed effectively with the use cases in mind?
    - Q7. Have business requirements been met in the use cases?
    - Q8. Have all users been identified?
* System Design Review Questions:
  + Efficiency
    - Q1. Does the potential component have run-time characteristics that are acceptable within the context of the existing design?
    - Q2. Does the potential component have data management capabilities that are consistent with the existing design?
    - Q3. Have algorithmic design alternatives been considered? If yes, why was this design chosen?
    - Q4. Has an object-relationship model been defined?
    - Q5. Is each subsystem appropriately allocated to processors and tasks?
    - Q6. How much memory is allocated to each component?
    - Q7. How is data communicated between software components?
    - Q8. Can simpler data structures be used?
* System Requirement Review Questions:
  + Integrity
    - Q1. Have all data objects been described?
    - Q2. Have all attributes been identified?
    - Q3. Do major functions remain within scope and has each been adequately described?
    - Q4. Does the system have a consistently designed user interface?
    - Q5. Will end users be able to find the functions they are familiar with?
    - Q6. Will proper naming conventions being followed?
    - Q7. Do the developer’s goals match with the customers goals?
    - Q8. Can we prevent the system from corrupting?
* System Design Review Questions:
  + Flexibility
    - Q1. Is the system capable of adapting to all types of problems or defects?
    - Q2. Is the system capable of allocating resources when under high stress?
    - Q3. Can the system retrieve information based on generalized queries/requests?
    - Q4. Can this system evolve?
    - Q5. Can we adjust for any changes in requirements, internal or external, made by the customer?
    - Q6. Can the system handle being introduced to new components?
    - Q7. Can the minimum and maximum information output be adjusted?
    - Q8. What types of risks is the system capable of handling?