Informing NUREG-1220 for Advanced and Microreactors: Training Review Criteria and Procedures

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Agenda

- Review of 10 CFR 50.120 and 10 CFR 55 SAT based regulation
- Overview of Systems Approach to Training concepts
- Public Discussion

Meeting Goals

- Facilitate an open discussion with stakeholders and interested parties on developing technology-neutral training programs for advanced and microreactors.

10 CFR 50.120

The training program must be derived from a systems approach to training as defined in 10 CFR 55.4, and must provide for the training and qualification of the following categories of nuclear power plant personnel:

(i) Non-licensed operator.

(ii) Shift supervisor.

(iii) Shift technical advisor.

(iv) Instrument and control technician.

(v) Electrical maintenance personnel.

(vi) Mechanical maintenance personnel.

(vii) Radiological protection technician.

(viii) Chemistry technician.

(ix) Engineering support personnel.

10 CFR 55.31

(a)(4)…In lieu of these details, the Commission may accept certification that the applicant has successfully completed a Commission-approved training program that is based on a systems approach to training…

55.4 Definitions:

Systems approach to training means a training program that includes the following five elements:

(1) Systematic analysis of the jobs to be performed.

(2) Learning objectives derived from the analysis which describe desired performance after training.

(3) Training design and implementation based on the learning objectives.

(4) Evaluation of trainee mastery of the objectives during training.

(5) Evaluation and revision of the training based on the performance of trained personnel in the job setting.

Revision Concepts

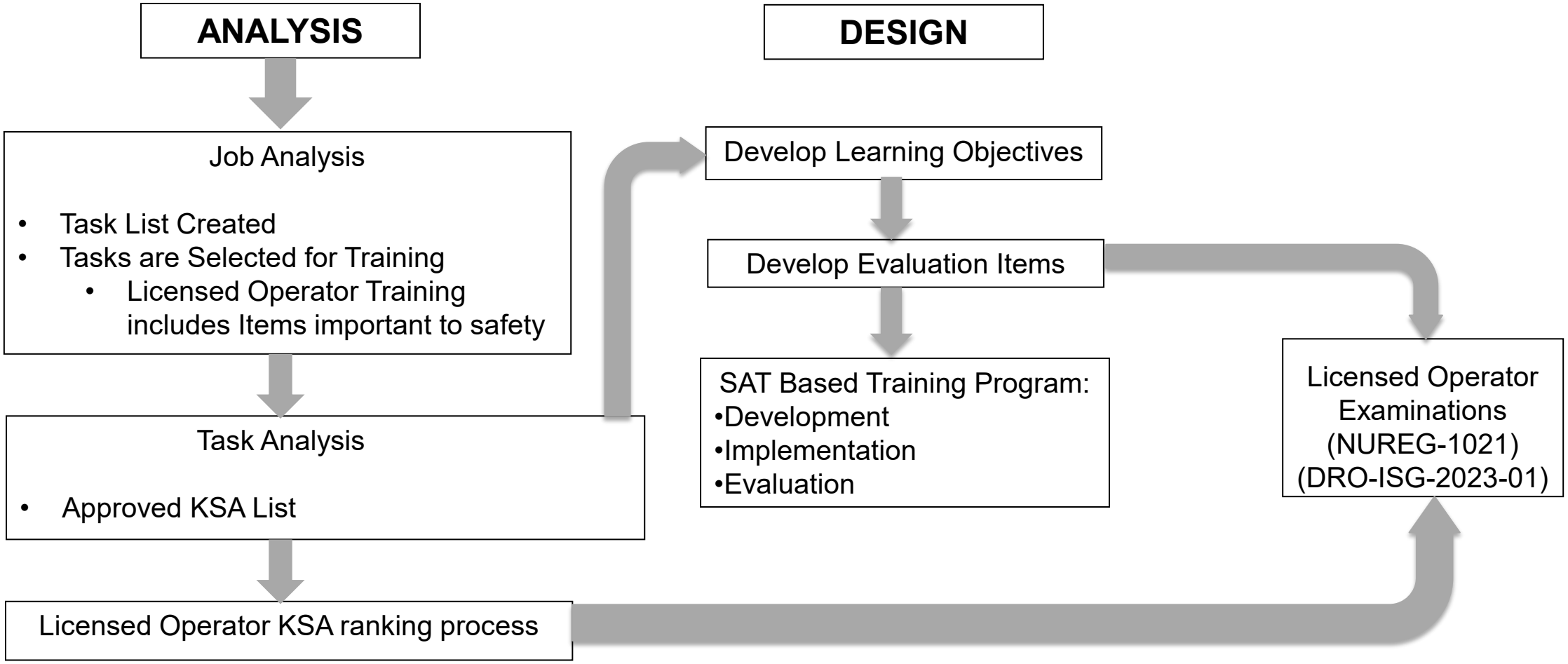
- Establish review methodologies.
- Maintain the 5 Phases of SAT.
- Incorporate instructional design concepts.
- Update the performance criteria.
- Update the evaluation criteria.

Section 1.0
Analysis Phase - Overview

- Defines the five methods of Analysis:
  - Needs Analysis
  - Job Analysis
  - Task Analysis
  - Context/Environmental Analysis
  - Learner Analysis

- Provide concept alignment between SAT Training and Operator Licensing Programs.

SAT and Licensed Operator Examinations



Section 2.0
Design Phase - Overview

- Defines:
  - Learning Objectives
  - Evaluation instruments
  - Exam Security Standards

Section 3.0
Development Phase - Overview

- Develops the following:
  - Training material
  - Integration of technology
  - Exam development

Section 4.0
Implementation Phase - Overview

- Consists of the following:
  - Implementation of the training
  - Exam administration and remediation
  - Execution of the summative assessment
  - Post training activities

Section 5.0
Evaluation Phase - Overview

- Executes the following:
  - Data Collection (Formative, Summative, Confirmative)
  - Assess information
  - Defines and initiates corrective actions

Topics for Consideration:

- General questions or feedback for NRC staff on NUREG-1220.
- Initiatives that the industry and developers are pursing related to training programs for Advanced and Microreactors.
- Considerations of enhancements for the training and qualification program evaluation process based on industry lessons learned.