

Take 5 for Safety

2012 Draft of Accelerator Safety Order Guide
10 Questions Before Starting a Job at C-AD
Photos of the Week

Collider-Accelerator Department
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 Office of
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U.S. DEPARTMENT OF ENERGY



Highlights of the Guide

- Requirements apply to entire “accelerator facilities including injectors, targets, beam dumps, detectors, experiments, experimental halls, ancillary laboratories, ancillary operations, etc”
- An accelerator facility with no potential hazards beyond the immediate facility could be addressed by a brief Safety Assessment Document (SAD), which references existing site programs, uses simple qualitative hazard assessments, and analyzes the maximum credible incident
- For accelerator facilities that pose potentially minor impacts outside of the immediate facility and negligible impact beyond the site boundaries, DOE requires a suitable Accelerator Safety Envelope (ASE) to bound proposed activities supported by an appropriate SAD; after determining that an appropriate accelerator readiness review (ARR) was conducted, the DOE / NNSA Field Element would then approve the facility ASE based upon concurrence with the associated SAD before authorizing the start of commissioning or routine operations
- For those accelerator facilities with the potential for more than negligible offsite impacts, DOE PSO / NNSA Administrator will contractually require concurrence with the facility SAD in addition to determining that an appropriate ARR was conducted, approving the ASE and authorizing the start of commissioning or routine operations

Guidance that Did / Did Not Change

- Topics with No Significant Change in 2012 Draft
 - Content of the Safety Assessment Document
 - Methods for commissioning and readiness reviews
 - Content of Accelerator safety Envelope
 - Post-operations decommissioning methods
 - Graded approach
- Topics with Significant Change or New Guidance in 2012 Draft
 - Routine operations (human performance, procedures, training and qualification of accelerator operations staff and users)
 - Credited Controls
 - Legacy hazards
 - Unreviewed safety issue determinations
 - Ancillary operations and hazards (cryo, RF, LOTO, ODH...)
 - Configuration management
 - Risk assessment methodology
 - Cyber security and safety software QA

10 Questions to Ask Yourself Before Starting a Job at C-AD

1. Are any radiation barriers added, changed or modified by the job or project (for example concrete and steel blocks, earth shields, fencing)?
2. Will the project or job generate new sources of activated or radioactive material?
3. Will the project or job alter or change an interlocked or locked accelerator enclosure?
4. Will the job or project add, modify or otherwise affect an Access Control System?
5. Are the large volume gas systems or their controls at AGS, RHIC, PHENIX, STAR or ERL being worked on?
6. Does the project or job involve altering, enlarging or otherwise changing an ODH area?
7. Are ODH fans or smoke removal fans or intakes in the RHIC tunnel or support buildings being modified in any way?
8. Are the smoke removal fans or intakes in the AGS tunnel being modified in any way?
9. Are environmental systems being worked on (i.e., stacks, filter banks or exhaust fans at BLIP, NSRL and Building 801)?
10. Are ventilation systems in Building 801, BLIP Building 931 or NSRL Building 956 being worked on?

If answer is yes, then permission required – contact R. Karol or E. Lessard

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