

ASRC 2013 Responses

Item ID	Owner	Due Date	Status	Item Description	Response	Closed Date
4063 16891.5	Freeman, David	3/31/2017	Open	1. Consider amending the ASE to make it administratively up to date. Consider limiting signatures to persons assigned authority, responsibility and accountability for the ASE. Consider amending the ASE to allow administrative changes on the signature page.	ASE revisions closely tied to FSAD revisions. Next routine FSAD revision is in 2016/17 timeframe.	
4064 16891.5	Freeman, David	3/31/2017	Open	2. Consider amending the ASE to identify the methods to measure beam power.	ASE revisions closely tied to FSAD revisions. Next routine FSAD revision is in 2016/17 timeframe.	
4065, 16891.5	Freeman, David	3/31/2017	Open	3. Consider amending the ASE to remove crediting of ORNL SBMS lab-wide standard-industrial-safety programs from Section 4.	ASE revisions closely tied to FSAD revisions. Next routine FSAD revision is in 2016/17 timeframe.	
4066, 16891.6	Freeman, David	3/31/2017	Open	4. Consider updating the organizational description in the SADs as soon as feasible.	Org can be updated w/ USI Evaluation and/or integrated into next routine FSAD revision. The next routine FSAD revision is in 2016/17 timeframe.	
4067, 16891.6	Freeman, David	3/31/2017	Open	5. Consider changing the SADs to remove broad references to conventional safety programs. Consider only describing the safety bases for specific controls that trigger an event involving a non- standard industrial hazard (e.g., the safety basis for and the specific restrictions on crane lifts over the target facility).	Next routine FSAD revision is in 2016/17 timeframe. Will attempt to remove	
4068	Freeman, David		Closed	6. Consider reviewing occurrences involving Credited Controls for impact on the safety bases in the SADs (e.g., evaluate occurrences via the USI process if they could involve Credited Controls in the ASE).	SNS reviews occurrences involving Credited Controls for impact on safety basis as appropriate. The USI Process Procedure (OPM 2.B.10) provides guidance for when to conduct USI evaluations for discovered conditions. For example, the PPS 24 volt power supply floating ground event that rendered portions of the PPS inoperable was evaluated using the USI process and determined to constitute and Unreviewed Safety Issue.	2/23/2016

Item ID	Owner	Due Date	Status	Item Description	Response	Closed Date
4069, 16891.7	Freeman, David	6/30/2017	Open	7. Consider training specific workers in the safety bases in the SADs that are relevant to their work. For example, riggers could be trained at some frequency on the safety bases involving lifts over the target facility, and workers in the Linac could be trained on the safety bases involving ODH if they are working at heights when work is also performed on the super-conducting RF.	<p>a. Consider training of other workers in a safety basis relevant to their work. Safety basis training has been developed and delivered to all System engineers. The training was developed and delivered using the ORNL LRN system and included SNS Safety Document Overview, required reading for specific CECs, and a review of Specific CEC knowledge. SNS QA Reps were also trained. Documentation for this action is in ACTS 17550.7.1.</p> <p>b. Superconducting RF. The committee's concern followed a review of an event where a limited cryogenic release occurred in the accelerator tunnel during work on the superconducting Linac. The Committee was concerned that an individual working on an ancillary task could be in the immediate area at elevated heights and could be exposed to ODH environment should a release occur and that the individual should have proper training to understand the hazard and proper response (i.e. to evacuate immediately). The SCL procedure Procedure CRYO-5.1, was revised to include a step to ensure that no non-essential personnel are working within 50 feet of the affected cryomodule. Additionally, workers must complete tunnel access training which includes ODH training in order to receive unescorted access to the tunnel.</p> <p>Remaining Actions:</p> <ol style="list-style-type: none"> 1. Review the FSADs and identify areas where FSAD safety basis training for targeted audiences might be beneficial. 2. Reviewed the identified training areas and assess the adequacy of the training already in place. 	

ASRC 2013 Responses

Item ID	Owner	Due Date	Status	Item Description	Response	Closed Date
4070, 16891.8	Freeman, David	9/30/2016	Open	8. In addition to Systems Engineers and Group Leaders, SNS should consider providing USI training to select operations staff.	SNS focus is on providing safety documentation training and USI training to System Engineers. A safety documentation training module has been developed that addresses USI awareness and includes classroom training, required reading, and 1-on-1 training specific to each System Engineer's system. The module has been developed in the ORNL LRN system. All System Engineers have completed the safety documentation training module. (See ACTS 17550.7.1 for closure documentation.) A USI preparer training module has been developed and implemented in the LRN system. Limited staff have successfully completed the USI Preparer training. Remaining Action: Complete USI preparer training for System engineers.	
16891.1	Kohler, Sharon		Closed	9. SNS should consider developing a 2nd staff member to serve as a qualified backup to the Safety Documentation manager who can conduct USI screens and evaluations in support of work planning	Dr. Steven Trotter completed training and is now qualified to serve as a "qualified Preparer for the USI Process. Training was consistent with that outlined in the USI Process Training for Qualified Preparers.	8/27/2014
4071	Freeman, David		Closed	10. Consider developing a policy or procedure to define the requirements for an ARR in the absence of major construction project deliverables. This may also be a place to give further guidance on the appropriate graded approach to and ARR for facilities with significantly reduced risk profile when compared to a major construction project.	The ORNL SBMS on Accelerator Safety requires an ARR for a new accelerator, as such the requirement for performing an ARR is independent from and is required regardless of project deliverables associated with construction projects. No new policy or procedure is needed. The revised implementation Guide (DOE G 420.2-1A) for the Accelerator Safety Order has been issued on August 1 2014, after this comment was made. The Guide provides guidance in applying a tailored approach based upon the size, complexity and inherent hazards. SNS plans to utilize the tailored approach endorsed in the Guide for future ARRs for small low hazard facilities such as the upcoming Integrated Test Stand Facility.	2/23/2016
4072	Freeman/Martin		Closed	11. Consider methods to ensure the DOE Representative for SNS is provided official copies and updates of the ORNL NRPD inventory.	NRPD maintains ORNL accelerator inventory as required by DOE Order 420.2C. The ORNL accelerator inventory rarely changes. NRPD communicates with responsible DOE facility representatives regarding addition or decommissioning of accelerator facilities.	8/18/2015

ASRC 2013 Responses

Item ID	Owner	Due Date	Status	Item Description	Response	Closed Date
4147	Curry/White	6/30/2014	Closed	12. Protection System Team Leaders should consider taking credit for the investment in personnel development by recording training in the training management system.	The PST leader has assembled and maintains a training portfolio for PST members to capture and document various training and personnel development activities such as attendance to US Particle Accelerator School, PLC Manufacturer training, and relevant workshops. The ORNL training management system (Learning Resource Network (LRN)) is not readily amenable to tracking these types of training and professional development activities. Formalized training modules, such as Radiological Worker Training, Safety Documentation Training, LOTO, etc, are provided and tracked within the ORNL LRN system.	3/1/2016
4074	Carpenter, Martha		Closed	13. The Protection Team and other QA stakeholders should consider periodically performing a management assessment and observation of PPS/TPPS/IPS/TPS procedures such as certification.	An initial assessment of the IPPS for Beamlines 5, 3, 17, and 18 was conducted and the report is attached to this record and to ACTS Assessment record 15260. Two issues were identified and corrective actions are in progress. These two issues and their ac	5/19/2014
4148, 16891.9	Mahoney, Kelly	10/15/2016	Open	14. The Protection Team Leaders should consider incorporating periodic audits of protection system configuration, labeling, and work controls into their respective PM programs.	PST personnel are formally tasked with developing a standalong PM program fo the PPS.	
4149	Curry/White		Closed	15. Opportunity for Improvement: Consider identifying equipment that performs PPS interlock functions in the work control database. Work requests involving devices performing PPS functions should notify PPS team to ensure requestors consider the impact on c	Action Completed. Equipment that performs PPS interlock functions is identified in the Datastream work control and asset management system.	2/23/2016
4150	Curry/White		Closed	16. SNS should consider enlarging its pool of available Chipmunk spares.	The ten Chipmunk spares modified by RIS do not meet environmental requirements and are difficult to calibrate. Therefore, the PST feels these are not viable spares. The PST is evaluating using commercially available monitors, e.g. RMS-3, as radiation m	8/18/2015

ASRC 2013 Responses

Item ID	Owner	Due Date	Status	Item Description	Response	Closed Date
4151	Curry/White		Closed	17. SNS should raise the priority of finishing acceptance testing of the new Chipmunks and place them into operation.	The ten Chipmunk spares modified by RIS do not meet environmental requirements and are difficult to calibrate. Therefore, the PST feels these are not viable spares. The PST is evaluating using commercially available monitors, e.g. RMS-3, as radiation m	8/18/2015
4152	Curry/White		Closed	18. SNS Data Services Department should consider re-evaluating cyber security practices for protection systems using the recommended practices of ICS-CERT, equipment manufacturers and other standards bodies.	Data Services (ICS) completed a cyber security audit for all SNS ICS using the ICS-CERT CSET tool in August, 2015 and an external review in September 2015.	2/23/2016
4086	Cross, Bobby		Closed	19. Continue on the path of program development that helps users maximize their scientific time at SNS and on programs that help SNS staff effectively and efficiently use their time and their interaction with Users.	The ISD Instrument Operations Group will continue the ongoing process to identify, document and implement procedures and processes to facilitate effective operations and User support. An example of this is the formation of a document team to review exist	5/19/2014
16891.2	Schrof, Crystal		Closed	20. From a scientific support perspective, SNS has forged ahead with innovative programs that support laboratory use and create a simple environment for Users to work in, making compliance and safety easy to reach. The team should consider how they should disseminate this model to other National Labs.	Good practices were discussed in a panel discussion at the National User Facility Organization's 2015 Annual Meeting April 20-23, 2015.	7/8/2015
4088	Dodson, George		Closed	21. Ensure the roles and responsibilities for configuration control referenced above see text of report on page 18 are current. (note: phrase "refereced above" refers to text on page 18 of ASRC report)	With respect to the action item issue of roles and responsibilities for the System Engineer, Lead Engineer, and Operations Engineer specified in the SNS Design Development Procedure, SNS SSCS Change Procedure and SNS Work Control Procedure, the role of Lead Engineer has been removed and all other roles are current.	2/29/2016
4089, 16891.10	Dodson, George		Closed	22. Ensure the Configuration Control Committee(s) charter(s) are current and available.	The Accelerator Configuration Control committee Charter was revised and issued.	3/30/2016

ASRC 2013 Responses

Item ID	Owner	Due Date	Status	Item Description	Response	Closed Date
4090	Dodson, George		Closed	23. Consider establishing a configuration control change eLog (for changes not associated with credited controls) to ensure preservation and availability of information.	The Accelerator Configuration Control documentation is in ProjectWise, the SNS Document Control System. It is as easy to get to as the e-log is and has better data retention criteria.	2/29/2016
4075, 16891.5	Freeman, David	3/31/2017	Open	24: The next revision of the ASE should remove criteria from 420.2B no longer present in revision 420.2C. Examples are ASE Section 2: Shielding.	ASE revisions closely tied to FSAD revisions. Next routine FSAD revision is in 2016/17 timeframe.	
4085	Carpenter/Gregory		Closed	25. The SNS RSO and other QA stakeholders should consider periodically performing an audit of shielding configuration (including RS Hold tags) against the master configured shielding list as well as the list of temporary shielding	See attached shielding walkdown dated August, 2013. Also see the RS Hold Tag Assessment conducted by Gregory and Carpenter May, 2014. Also, another RS Hold Tag Assessment is planned for FY 2015 and is scheduled in ACTS for conduct during the winter ou	8/18/2015
4081	Gregory, Don		Closed	26. SNS should consider using a checklist based on (25) above, as both an aid and a record when verifying shielding configuration before machine operations.	A master shielding list has been developed and is provided in SNS OPM 2.H-7.7.a, "SNS Shielding Under Configuration Control" (Rev 2 dated February 10, 2015). The Operational Readiness Management Self Assessment (OPM 6.F-1.2, Rev 2 Sept 22 2014) requires	8/18/2015
4082	Gregory, Don		Closed	27. Consider using the existing database tools to create and maintain the list of configured shielding, applicable information from (25) above, and creation of checklists described in (26), above.	Transformation of the shielding list to a database format was considered, but it was decided that having the list in OPM 2.H-7.7.a, "SNS Shielding Under Configuration Control" as a procedure was preferable from several perspectives. It is considered unwi	8/18/2015
4080	Gregory, Don		Closed	28. Consider expanding the information on configured shielding list to associate shielding configuration items required for each facility-operating mode (e.g. Ion Source, Front End Only, Linac Tune-up, and Full Power).	The latest version (Rev 2 dated February 10, 2015) of the official shielding list provided in SNS OPM 2.H-7.7.a, "SNS Shielding Under Configuration Control" is segmented to show which items are necessary for each operating mode. Thanks for the excellent	8/18/2015
4079	Gregory, Don		Closed	29. SNS should consider formalizing the use of pictures of stacked block shielding to help ensure shielding that is temporarily removed meets configuration requirements when reinstalled.	Pictures of configuration controlled shielding items are now maintained on the NSCD server in the RSO area (\\NSCD\Groups\RAD\RSO) in a folder. The photos are numbered and named in accordance with the current active shielding list in OPM. .H-7.7.a, "N	8/18/2015

Item ID	Owner	Due Date	Status	Item Description	Response	Closed Date
4083, 16891.11	Johns, Glen	9/30/2016	Open	30. A short document that provides a table with a crosswalk between the ASE and the SNS procedures that meet the ASE requirements could be helpful.	ACTS 16891.11.1: Issue a short document that provides a table with a crosswalk between the ASE and the SNS procedures that meet the ASE requirements.	
4076	Johns, Glen		Closed	31. Ensure SNS procedures are reviewed and updated as necessary at least once every three years as required by SNS-OPM 1.A-1 and SNS-OPM 1.A-2. Identify and prioritize procedures that may be behind in their three-year review.	We have identified and prioritized procedures that are behind in the review cycle. We have reviewed them and they are all in various stages of revision and approval. This is a continuous process and the adoption of a NScD document management system will help with the review/update/approval process. Until that time, we will continue	3/1/2016
4077	White, Allen		Closed	32. SNS-OPM 4.B-2 SNS Training and Qualification Plan (Rev. 00, 2002) is no longer current and/or correct (references SAP and GoTrain instead of LRN). A corrective action is being worked for this deficiency and should include a p	Revision 1 of SNS-OPM 4.B-2, "SNS Training and Qualification Plan" was issued on 30 September 2013. The referenced corrective action (from the Assessment and Commitment Tracking System) is 13918.3.3, "Execute the Neutron Sciences Directorate's Training P	5/19/2014
16891.3	Kohler, Sharon		Closed	33. Consider maintaining SNS specific LOTO procedures up to date in order to comply with the Conduct of Operations Order, as opposed to relying on an SBMS Subject Area as the procedure. Note: DOE O422.1 implies tht documents like these LOTO procedures are contractual requirements if they are identified as "attributes" to support a requirement in the DOE)422.1 Conduct of Operations Matrix.	The SNS LOTO procedure was revised to include COO and include references to the NFPA 70E requirements. Subsequently, the SBMS LOTO procedure was revised to address electrical safety and the SNS opted to sunset the SNS LOTO procedure and implement the ORNL SBMS process. The ORNL SBMS process meets all requirements.	4/23/2014
16891.4	Kohler, Sharon		Closed	34. Consider having the SNS accelerator enclosure group LOTO practice reviewed by an NFPA 70E expert (e.g., to determine its role in complex LOTO procedures).	The SNS LOTO procedure was revised to include COO and include references to the NFPA 70E requirements. Subsequently, the SBMS LOTO procedure was revised to address electrical safety and the SNS opted to sunset the SNS LOTO procedure and implement the ORNL SBMS process. The ORNL SBMS process meets all requirements.	4/23/2014

ASRC 2013 Responses

Item ID	Owner	Due Date	Status	Item Description	Response	Closed Date
4087, 16891.12	Abercrombie, Donald H	12/31/2016	Open	<p>35. The ASRC reviewers noted that some other DOE neutron and light sources have similar Instrument / Beamline initial commissioning review processes. They also noted that some of these facilities also require an Instrument / Beamline safety and Instrument procedure review to be performed periodically. Specifically, Argonne's APS and decommissioned IPNS utilize this practice. This periodic review is a formal process with short presentations given to the Review Team of instrument practices, proper documented paperwork, and current Instrument staff assigned responsibilities. A Periodic Review Team need not have the same membership as the ISSC and would have a bias towards ongoing operations. That being, neutronics, shielding configuration and seismic issues etc., probably need not be revisited.</p>	<p>Committed Actions:</p> <ol style="list-style-type: none"> 1. Improve scientific productivity assessments to strengthen the safety component consistent with the approach used for the Advanced Photon Source (APS) review Process. 2. Develop a committee charter for the periodic review of SNS Beamline safety. 3. Issue schedule for committee to review SNS beamlines so as to complement the external Scientific productivity reviews. 	