

**GUIDELINE**

**PERFORMANCE**

**EXCEPTIONS & DEVIATIONS**

GUIDELINE	PERFORMANCE	EXCEPTIONS & DEVIATIONS
<p>1. Policies</p> <ul style="list-style-type: none"> <li>• Specify goals and the means to achieve them.</li>   <li>• Specify the type of controls necessary to implement the policy.</li> <li>• Personnel should understand their authority and responsibility, through accountability.</li>   <li>• Physical Security should conform to DOE 5630.11, "Safeguards and Security Program."</li> </ul>	<p>1. Policies</p> <ul style="list-style-type: none"> <li>• Goals, some of which are derived from institutional-level documents e.g., Spallation Neutron Source Project Execution Plan, are integrated into the Operations Procedures Manual (<a href="#">OPM</a>). The SNS goal for risk from all hazards is not only to be below relevant legal limits, but also is to be 'as low as reasonably achievable (ALARA).' The ALARA philosophy has also been expanded to include waste generation and the potential for pollution from accelerators and experiments.</li>   <li>• Supervision, administrative controls, procedures and engineered safety systems are used to implement policy.</li>   <li>• Authority, responsibility, accountability and interfaces with other groups are defined clearly in the Operation Procedure Manual, Chapter 1, <a href="#">OPM 1</a>, "Authorization, SNS Documents for Operation " and Chapter 6, <a href="#">OPM 6</a>, "Organization and Practices.", and in <a href="#">Appendix D</a> "Definitions". Specific individuals are trained and held accountable for safety, emergency, commissioning and operations roles. Additionally, ORNL employs the <a href="#">R2A2</a> concept, which is an institutional program to define role, responsibility, accountability and authority for each employee.</li>   <li>• The exterior doors to most buildings are locked from 5:30 PM to 7:00 AM and on weekends and holidays. Other SNS accelerator areas are secured via automatic access-control system hardware.</li> </ul>	<p>1. Policies</p> <ul style="list-style-type: none"> <li>• None.</li> </ul>
<p>2. Resources</p> <ul style="list-style-type: none"> <li>• Provide sufficient resources, material, and labor.</li> </ul>	<p>2. Resources</p> <ul style="list-style-type: none"> <li>• We will have a minimum of one Operator and one Chief Operator per operating shift. This staff is sufficient for safe operation. During operations, materials and resources are managed day-to-day by the Operations Coordinator, and during Shutdown, by the Maintenance Coordinator. Sufficient resources are provided.</li>   <li>• Excessive overtime is avoided where possible by using shift operations.</li> </ul>	<p>2. Resources</p> <ul style="list-style-type: none"> <li>• None.</li> </ul>

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<ul style="list-style-type: none"> <li>• Do not use excessive overtime.</li> <li>• Provide technical support personnel.</li>   <li>• Develop a long range staffing plan.</li> </ul>	<ul style="list-style-type: none"> <li>• The technical support personnel, Accelerator operators, Radiological Control Technicians (RCTs), and Accelerator Systems Division (ASD) personnel are staffed according to various changes in operations.</li>   <li>• ASD management prepares a long-range staffing plan.</li> </ul>	
<p>3. Monitoring Of Operations Performance</p> <ul style="list-style-type: none"> <li>• Refer to Chapter 6 for operating problems.</li> <li>• Document problems for evaluation.</li>   <li>• Supervisor should observe operations frequently.</li>   <li>• Operations Goals should be to:</li> <li>• Minimize the unavailability of the safety system</li>   <li>• Minimize personnel errors</li>   <li>• Conform to ALARA guidelines</li> </ul>	<p>3. Monitoring Of Operations Performance</p> <ul style="list-style-type: none"> <li>• See Chapter 6 for operating problems.</li> <li>• Scheduled inspections, performance indicators, audits, reviews and self-assessments are used to document problems for evaluation and to observe operations. Problems will be documented via the Trouble Reporting System (<a href="#">OPM 6.K-1</a>) and occurrences are documented via the Occurrence Reporting System (<a href="#">OPM 2.D-1</a>). A commercial, ORACLE based, software package, Computer Maintenance Management System (CMMS) will be used as a management tool to maximize system availability through tracking of equipment faults, inspections, maintenance recording and failure prediction.</li> <li>• Supervisors participate in inspections and audits, they are members of safety review committees, and they are encouraged by ASD management to ‘supervise by doing walkthroughs.’</li> <li>• Operations Goals are listed in SNS 102000000-TR0004-R00</li> <li>• Operations procedures minimize the unavailability of safety systems by requiring operations to be curtailed should safety systems fail to operate.</li> <li>• Minimizing personnel errors is a goal, see <a href="#">OPM 6.A-1</a>, "SNS Operations Organization and Administration."</li> <li>• <a href="#">ALARA</a> is integrated into the <a href="#">OPM 2.H</a>, and <a href="#">OPM 2.C-1</a>, Radiation Safety Committee procedures. Operators aim at reducing beam losses to the lowest reasonably achievable level.</li> </ul>	<p>3. Monitoring Of Operations Performance</p> <ul style="list-style-type: none"> <li>• None.</li> </ul>

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<ul style="list-style-type: none"> <li>• Minimize loss of the facility capability</li> <li>• Minimize the number of unscheduled shutdowns</li> <li>• Complete inspections on a timely basis</li> <li>• Minimize the amount of overtime</li> <li>• Achieve and maintain complete staffing and training requirements</li> <li>• Minimize waste</li> <li>• Minimize the number of lighted annunciators</li> <li>• Goals should be measurable, achievable, and auditable.</li> <li>• Develop an Action Plan to meet goals.</li> </ul>	<ul style="list-style-type: none"> <li>• High reliability is an ASD goal given the constraints of safety and available resources. Equipment breakdown at ASD will be the major source of radiation exposure to workers, and high reliability is built into components. The CMMS will be used on a daily basis in order to aim for maximum system and facility availability.</li> <li>• Unscheduled shutdowns are minimized through enforced periodic maintenance, formal reporting of problems in the CMMS, good communications between operators and support staff such as the Weekly ASD Meeting and by designing equipment to be “radiation hardened.”</li> <li>• Completing inspections on a timely basis is ensured through written procedures and checklists for Operators, RCTs, and ASD staff. Inspection results are logged in the CMMS.</li> <li>• Maintaining equipment inspections during running periods minimizes downtime due to breakdowns. Maintaining an adequate Operations staffing level reduces operational overtime.</li> <li>• Achieving and maintaining complete staffing and training requirements is a requirement see <a href="#">OPM 6.A-1</a>. "SNS Operations Organization and Administration." For example, see the “Operational Envelopes / Accelerator Safety Envelope” <a href="#">OPM 2.B-1</a></li> <li>• <a href="#">Waste minimization</a> is a formal program with procedures that deal with hazardous, radioactive and clean waste plus recycling. Waste minimization and pollution prevention are specific responsibilities listed in each person's <a href="#">R2A2</a> (Roles, Responsibility, Accountability and Authority).</li> <li>• When new systems are introduced into the Central Control Room, human factors are considered in the design of panels and annunciators.</li> <li>• Goals such as lost work case rate and collective dose are measurable and many have been achieved each year over the lifetime of the SNS project. During operations, operators, physicists, and ASD management meet to critique the previous week's operations and to discuss future goals.</li> </ul>	

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<ul style="list-style-type: none"> <li>• Report results of audits to facility management and DOE.</li> <li>• Perform Self-Assessments.</li> </ul>	<ul style="list-style-type: none"> <li>• Ad hoc groups or ASD committees have been asked to develop action Plans. For example, an action plan. An example of this was the RATS lifting plan.</li> <li>• Results of audits are reported to ASD Management, SNS ES&amp;H and where applicable to the SNS-ALD, ORNL and DOE.</li> <li>• Self-Assessments are conducted in compliance with the ORNL SBMS Policy "<a href="#">Performance Planning and Assessment</a>"</li> </ul>	
<p>4. Accountability</p> <ul style="list-style-type: none"> <li>• Hold workers and supervisors accountable for their actions.</li> <li>• Use discipline and performance appraisals to ensure accountability.</li> </ul>	<p>4. Accountability</p> <ul style="list-style-type: none"> <li>• Management and worker self-assessments are conducted on an established schedule and reports are forwarded to ASD management. Corrective actions are tracked to closure. See the ORNL Performance Assessment and Development System (<a href="#">PADS</a>).</li> <li>• This ORNL formal performance appraisal program is in use for all ORNL staff. These documents are maintained by the Human Resources Department.</li> <li>• Adhering to all rules, including rules dealing with safety, quality, operations or maintenance, is factored into an individual's appraisal. Disciplinary measures include letters to a personnel file, written when procedures were not followed. For more serious infractions, personnel can be given time off without pay.</li> </ul>	<p>4. Accountability</p> <p>None.</p>

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<p>5. Management Training</p> <ul style="list-style-type: none"> <li>Formal training of supervisors and other management should be incorporated into overall training plan.</li> </ul>	<p>5. Management Training</p> <ul style="list-style-type: none"> <li>The SNS ASD Training Plan is described in OPM Chapter 4 <a href="#">OPM 4</a> "Training and Qualification." The ASD has performed job assessments for all positions including management and supervisors, and has developed corresponding training requirements. The ASD Human Resources Manager maintains Job assessments.</li> </ul>	<p>5. Management Training</p> <p>None.</p>
<p>6. Planning For Safety</p> <ul style="list-style-type: none"> <li>Provide guidance to personnel so that they understand safety requirements.</li> <li>Explain the role of Safety Analysis system to all operations personnel.</li> </ul>	<p>6. Planning For Safety</p> <ul style="list-style-type: none"> <li>All jobs are assessed for environmental, safety and health hazards, and the necessary training is given before persons are authorized to perform the job. In order to guide personnel, the ASD has incorporated job-specific safety requirements into OPM procedures and checklists (e.g., <a href="#">OPM 2A</a> and <a href="#">2.B</a>) and has required staff to qualify in formal training programs where job-specific safety rules are explained.</li> <li>The Accelerator Operational Envelope/Accelerator Safety Envelope (<a href="#">OPM 2.B-1</a>) binds operators. Operation is forbidden outside the envelope. A procedure is in place to modify the AOE/ASE. ASD accelerator physicists, beam commissioners, project engineers, project physicists, liaison engineers and liaison physicists are made familiar with the methods for modification of the envelopes through periodic training. For operations that inadvertently go beyond the safety envelope, operators are required to report via the Occurrence Reporting Procedure, <a href="#">OPM 2.D-1</a>. All operations staff is made aware of the protocols either for reporting occurrences or for scheduling safety reviews through facility-specific and job-specific training programs.</li> </ul>	<p>6. Planning for Safety</p> <p>None.</p>