status to perform work.
- Properly isolate, tag, and drain equipment to assure a safe working condition.
- Identify parts for reassembly.
- Control tools in use at the worksite.
- Use approved material for the job.
- Perform Pre-Job Brief; discuss OE, safety, and maintenance risk.
- Supervisors visit job sites to ensure that work is progressing safely and efficiently.
- Understand and communicate the impact or maintenance activities on plant operations to all involved parties.
- Ensure that turnover is sufficient for oncoming personnel to properly continue the task.
- Thoroughly test equipment to ensure component and system operability prior to returning a component or system to service.
- Protect floors, walls, and other, nearby equipment and instrumentation while performing work.

17. Housekeeping
- Store tools and equipment properly when work is completed.
- Maintain walkways and equipment access free from obstructions.
- Maintain cleanliness in work areas to ensure personnel safety and prevent Foreign Material Exclusion (FME).
- Keep shop areas clean, neat, orderly, and professional.
- Leave work areas cleaner than before work began.
- Handle and store chemicals properly; ensure chemical labeling is correct.

18. Foreign Material Exclusion (FME)
- Control entry of personnel and materials into Foreign Material Exclusion Zones (FMEZ).
- Be an FME champion.
- Identify FME risk and take action to prevent FME events.
- Immediately report any foreign material present in systems or components.
- Ensure FME zones are accurately identified.
- Use FME monitors and buffer zones, as appropriate.
- Determine specific FME recommendations using field walk-downs.
- Do not use prohibited items on the refueling floor (e.g., plastic or metal tie-wraps, or sliver duct tape).
- Use site-specific FME plans for refuel outages and major evolutions.
- Maintain an accurate FME log, as required.

19. Documentation of Work
- Accurately document the “as found” conditions of work performed on, and “as left” condition of components or equipment.
- Use condition codes to support PM scope and frequency determinations.
- Provide feedback to planning to improve future work packages.
- Keep accurate journals of activities, as appropriate.
- Verify completed work packages contain all required documentation and signoffs.
- Sign off completed work orders and procedures in a timely manner.

20. Productivity
- Identify the most efficient means of accomplishing tasks.
- Schedule work to accurately reflect expected duration and start times.
- Staff jobs appropriately with qualified personnel.
- Critique significant jobs to identify any productivity issues.
- Report job completion to supervision; seek additional assignment.

21. Proper Use of Tools and Safety Equipment
- Use the proper tool(s) for the job to ensure worker safety, protect plant equipment, and ensure equipment reliability.
- Inspect portable electric tools for damage or frayed wires prior to use, and periodically during use, to prevent electrical shock.
- Use ground fault circuit interruption at the power source.
- Wear proper safety line and harness when climbing or working at height.
- Use air flow breakers on all pneumatic tools.
- Select Measuring and Test Equipment (M&TE) for appropriate range, accuracy and test medium.
- Inspect all electric and gas welding equipment prior to, and periodically, during use.
- Control tools at job site.
- Check calibration dates on tools to ensure they are in date.

22. Rigging
- Ensure that all rigging is inspected and certified prior to use.
- Handle and store rigging properly and with respect.
- Ensure a trained and qualified task leader maintains command and control of a lift.
- Follow safe load paths and maintain loads as close as possible to nearest floor or load bearing structure.
- Do not perform work on or under a suspended load.
- Crib/block loads to a stable condition as soon as practical following a lift.
- Ensure the signal man uses hand signals and wear identifying apparel (e.g., an orange vest) during rigging evolutions.
- Know the maximum weight of the load prior to a lift.
- Do not rig off of unevaluated plant equipment.
- Pad sharp edges on the load to protect rigging.
- Choose rigging conservatively based on load.

23. Work Planning instruction
- Ensure post-maintenance tests (PMTs) adequately test component functionality following maintenance.
- Incorporate applicable Operating Experience.
- Review procedure and historical work packages for lessons learned, and incorporate into work instructions.
- Update the record copy/template work order with lessons learned.
- Identify appropriate clearance/out-of-service (OOS) requirements
- Verify that material requirements and lead times support work schedule dates.
- Incorporate worker feedback into work instructions.
- Complete the planner checklist
- Solicit worker input regarding repair plans.
- Identify and communicate support group resource needs during work planning.

24. Contractor Oversight
- Monitor performance using observations and coaching.
- Verify that documentation of work is accurate.
- Ensure Task managers understand the contract and the contractor’s work scope.
- Clearly communicate expectations regarding work scope and standards.
- Manage the in-processing and out-processing of personnel.
- Ensure that job closeout checklist is performed as required.
- Ensure that roles, responsibilities, and authorities are clearly defined.
- Ensure that Pre-Job Briefs are adequately performed.
- Verify the qualifications of personnel.
- Perform increased monitoring of new vendor and first-time evolutions.
- Communicate Nawah standards and expectations regarding personnel and equipment safety.
- Ensure that the contract management team assesses its own performance and conducts an exit feedback meeting.

25. Schedule for Success
- Establish proper logic ties and identify time-critical tasks.
- Schedule with the proper levels of details.
- Strive for realistic and challenging activity durations.
- Look ahead to upcoming evolutions, challenge readiness, and resolve roadblocks.
- Perform thorough multi discipline reviews.
- Status work accurately.
- Rigorously defend quality and safety standards.
- Load to available resources.
- Manage pre-outage schedules.
- Provide timely notification to support groups on status and schedule changes.
- Plan the work, then work the plan (minimize schedule changes).
- Ensure support group activities are appropriately scheduled and logic-tied.

26. Work Management (Efficiency)
- Participate in, and be accountable to, the Nawah work control process.
- Review schedule for conflicts; challenge job durations, preparations, and interfaces.
- Identify and remove unnecessary barriers.
- Perform pre-job walk downs to verify required support, preparation, and equipment staging.
- Verify that equipment is properly taken out of service and isolated.
- Work to the schedule – start and complete each job on time.
- Notify supervision of a scheduled job delay greater than 10 minutes.
- Notify the Work Week Manager (WWM) or Outage Control Center (OCC) of a scheduled job delay greater than 30 minutes.
- Incorporate lessons learned to improve future job performance.

27. Pursuit of Excellence (Continuous Improvement)
- Be self-critical.
- Prevent complacency; identify opportunities for improvement.
- Reinforce desired behaviors and correct weaknesses.
- Perform self-assessments and benchmarking.
- Monitor for and take actions on adverse performance trends.
- Identify, document, share and act to improve upon Lessons Learned.
- Do things right the first time.

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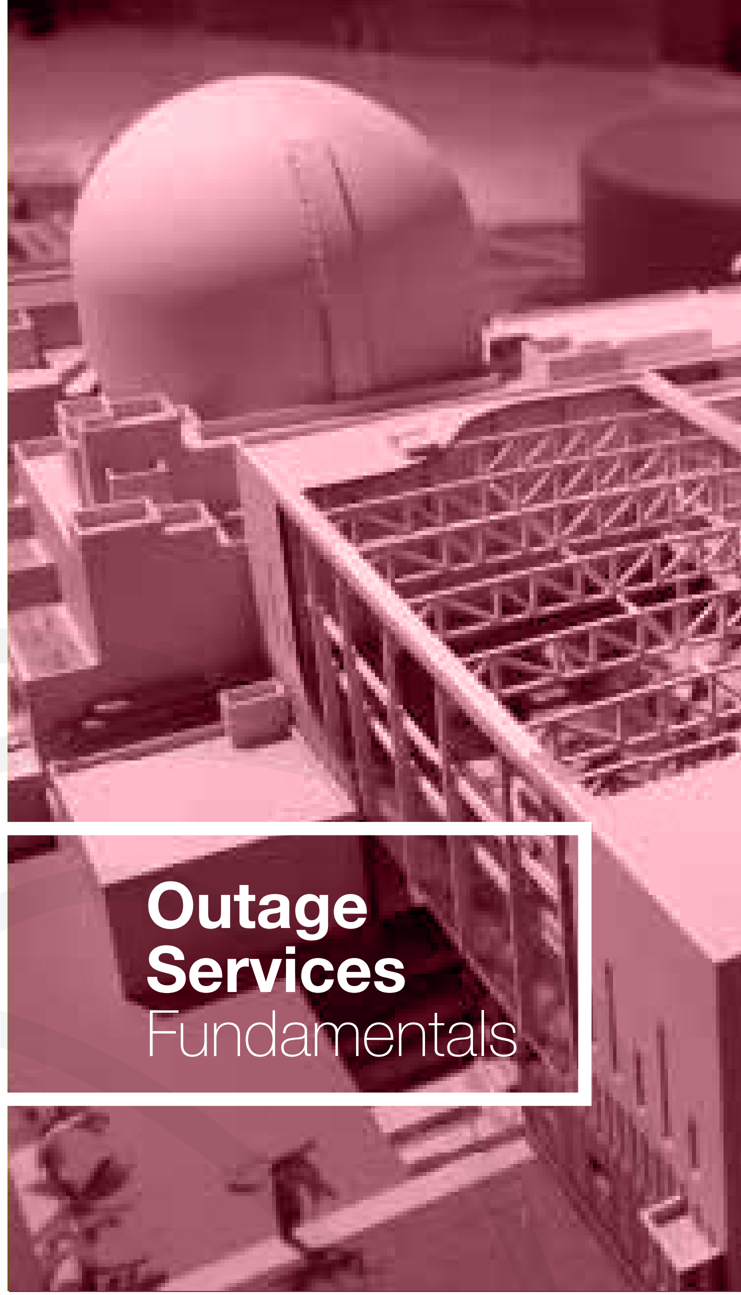

Outage Services Fundamentals

شركة نواة للطاقة
Nawah Energy Company

OR-REF-0010 Rev. 00

1. Reactor Safety

- Maintain Plant parameters within operating limits.
- Practice effective, conservative decision making.
- Maintain component measurement and clearances within specifications.
- Operate and maintain the plant in accordance with procedures.
- Recognize and adhere to all regulatory requirements and environmental permits.
- Understand plant consequences of every action taken.
- Believe instrument response and indication unless proven otherwise.
- Maintain a questioning attitude; ask "why?".
- Raise safety concerns to your supervisor.
- Maintain qualification and proficiency in assigned emergency response role.
- Ensure fire doors are latched after use.

2. Industrial Safety

- Be responsible for your own safety.
- Adhere to safety postings and barriers.
- Perform a job hazard analysis on infrequently performed jobs.
- Review lessons learned and Operating Experience (OE) when planning work.
- Use the appropriate Personal Protective Equipment (PPE) for work to be performed.
- Ensure equipment is in a safe condition prior to beginning work.
- Know your personal limits; both physically and mentally.
- Use installed safety equipment.
- Do not bypass required equipment safeguards.
- Comply with chemical Material Safety Data Sheet (MSDS) requirements.
- Stop and promptly report unsafe conditions.
- Stop and correct unsafe behaviors or conditions.
- Be alert for changing conditions.
- Report all injuries.
- Practice good housekeeping.

3. Radiological Safety

- Ensure you are on the correct Radiological Work Permit (RWP)
- Maintain strict compliance with all RWPs
- Know the work area dose rates and contamination levels
- Know your accumulated dose – do not exceed limits
- Adhere to radiological boundaries; do not alter
- Practice As Low As Reasonably Achievable (ALARA):
  - Pre-plan work to minimize dose
  - Move work to low dose areas if possible
  - Use low dose waiting areas – do not loiter
  - Use minimum number of workers to safely perform job
  - Use remote-handling tools; if possible
  - Maximize distance between you and any radiation sources.
  - Avoid radiation hot spots
- Be proactive in identifying potential dose reduction opportunities
- Practice good housekeeping at all times

4. Security

- Follow directions given by Nuclear Security Force personnel.
- Understand that all individuals, materials and vehicles on company property are subject to search for prohibited material.
- Properly display and control security badge.
- Immediately notify security of a lost badge within the Protected Area or Vital Areas.
- Ensure security doors are latched after use.
- Maintain positive control of visitors at all times.
- Immediately report security or fitness-for-duty violations.
- Adhere to security postings and barriers.

5. Reactivity Management

- Recognize when activities can impact reactivity and take appropriate precautions.
- Follow procedure and component move sheets as written.
- Ensure roles and responsibilities are clear and understood.
- Perform error-free fuel handling and core component changes.
- Take conservative actions when handling nuclear fuel and irradiated components.
- Verify the current qualification of involved individuals prior to initiating fuel handling activities.
- Ensure fuel floor activities do not distract from safe fuel or components handling.
- Ensure that shift management is informed of any abnormal conditions or off-normal status.
- Benchmark industry for best practices.

6. Human Performance (HU)

- Understand and properly use the applicable HU tools for tasks.
- Use Self-Check/STAR and Point-Touch-Verbalize for component identification and equipment manipulation.
- Use Peer Check (PC) when requested.
- Use Three-Way Communication when providing direction or exchanging critical information.
- Use the Phonetic Alphabet when communicating alphanumeric information.
- Use Peer Review where possible.
- Identify and eliminate error-likely situations.

7. Procedure Use and Adherence (PU&A)

- Verify that you are using the correct procedure revision.
- Ensure the procedure is appropriate to accomplish desired task.
- Use procedures according to designated level of use.
- Obtain clarification on procedures steps, to ensure understanding, prior to taking action.
- Adhere to procedures as written.
- Stop and revise identified procedure errors prior to continuing use.
- Use Placekeeping. Designate step completion using circle/slash technique.
- Re-verify conditions prior to continuing a suspended evolution.
- Take ownership for procedure quality.

8. Briefs

- Prepare and review material prior to conducting briefs.
- Use Shift Briefs to cover:
  - Safety moment and related topics.
  - Plant status; including abnormal plant conditions and line ups.
  - Increased monitoring requirements for adverse conditions.
  - Important scheduled and in-progress work.
- Conduct the appropriate type of Pre-Job Brief (PJB) by considering the task and level of risk associated with it.
- Review Operating Experience (OE).
- Ensure "positive engagement" of all personnel.
- Conduct Post-Job Debriefs to identify follow up actions and Lessons Learned.

9. Condition Reporting and Resolution

- Initiate Condition Reports (CRs) for problems, errors made or found, and concerns.
- Perform thorough and insightful apparent, common and root cause evaluations.
- Identify and implement timely corrective actions to prevent recurrence.
- Verify effectiveness of corrective actions.
- Review sources of nuclear event reporting and take appropriate actions.

10. Accountability

- Own your performance - results, and behaviors.
- Report to work on time and fit for duty.
- Maintain safe and professional dress.
- Meet or exceed minimum work hour expectations.
- Expect and be receptive to feedback and coaching.
- Review your work and sign to verify quality and content.
- Provide and seek timely and specific feedback to improve performance.
- Know your development areas and take actions to improve.
- Report problems to your supervisor.
- Verify that your personal working file reflects your performance.
- Ensure you receive routine formal appraisals.

11. Integrity and Transparency

- Use independent effort when being tested.
- Speak up and tell people the facts.
- Know what your signature means – read, understand, and agree.
- Always honor your commitments.
- Follow the Nawah rules and standards at all times.
- Be open and honest during investigations.
- Own and share mistakes made and events incurred; share Lessons Learned.
- Ask "why?" Raise concerns.

12. Training and Qualification

- Participate in training – "Come to learn".
- Report for training by the scheduled starting time and return from breaks on time.
- Be accountable for your training performance and professional conduct.
- Wear appropriate PPE in training labs.
- Learn the fundamentals.
- Practice to gain proficiency.
- Provide mentoring to those in need.
- Provide meaningful feedback on the quality of training.
- Own and maintain your current certification and qualifications.
- Track individual and crew performance, as well as improvement plans in crew notebooks.
- Use critique checklists to identify individual and crew strengths and areas for improvement.
- Verify qualifications prior to performance of work tasks.
- Identify training needs to improve performance.
- Pursue additional skills to broaden qualifications and enhance professional development.

13. Teamwork

- Share insights and experience with others.
- Solicit and respect different views and ideas to strengthen decision-making.
- Solve problems by involving others.
- Make additional effort to work across cultural barriers.
- Align to the team's shared goals and objectives.
- Accept actions and complete on time.
- Conduct team critiques - learn and improve.
- Achieve team goals and meet individual expectations.

14. Intolerance for Unexpected Equipment Failure

- Champion initiatives that promote material condition excellence.
- Proactively identify degraded equipment condition and system performance.
- Initiate work requests.
- Determine impact of degraded equipment and set plant priorities to ensure timely repairs. Drive problem resolutions.
- Develop, execute and document thorough troubleshooting plans.
- Collect, preserve and document all physical evidence resulting from equipment failure.
- Develop operating contingencies for degraded or out of service equipment.
- Perform Preventive Maintenance (PM) as scheduled. Document feedback to improve PM program effectiveness and record failure history.
- Take immediate action to resolve unexpected or unacceptable performance of equipment if it occurs.

15. Configuration and Design Control

- Manipulate plant components per approved procedures.
- Ensure that clearances/out of service boundaries are adequate and correct. Walk down and accept clearances/out of service requirements prior to beginning work.
- Do not attach scaffolds or ladders to sensitive or safety-related equipment without proper authorization.
- Do not step or climb on snubbers, hangers, components, insulation, copper piping, hoses, tubing, instrument racks, conduit or cables.
- Immediately notify the Main Control Room (MCR) in the event that:
  - Equipment configuration is different than expected.
  - A question exists regarding what position a component should be left in during the performance of work activities.
  - A component may have been mis-positioned.
  - One or more barriers are discovered to be degraded.

16. Maintenance Standards and Practices

- Ensure that the work package or a copy is available at the work location; refer to the work package to perform the task properly.
- Ensure that the work package is approved and in the correct