ANNEX C TO
ENCLOSURE 1 TO
NSAM's N2522/41
DATED 02 OCT 07

'LESSONS LEARNT' FROM NSER's RAISED PERIOD 01 Jun 06 – 31 May 07

The following are significant Lessons Learnt from Nuclear Safety Event Reports (NSERs) raised period 01 Jun 06 –
31 May 07:

Procedural Control

The use of a Nuclear Logic and Nuclear Procedure's is essential for ensuring the control of nuclear implicated work. Any task with Nuclear and/or Radiological Safety Implications must be controlled and carried out strictly in accordance with the authorised documentation. Deviation from Nuclear Procedures must be appropriately authorized iaw BR3018.

It is the responsibility of the PAG to ensure that all Nuclear Procedures are clear, comprehensive, safe and meets the design intent. Most importantly, the assessment of whether a procedure is 'clear and comprehensive' must be judged from the standpoint of the personnel carrying out the procedure.

Operations

All personnel associated with the NSRP must guard against a reduction in their professional and watch keeping standards especially during busy periods. Management should be aware of the increased potential for errors through excessive work and take action where possible to guard against operator fatigue i.e. provision of additional watchkeepers. External pressures such as NBCD exercises must not be allowed to compromise the safe operation of the NSRP. Operators should never allow programme pressure to take precedence over safe working or authorized and established procedures.

Safe operation of the NSRP requires rigorous attention to detail when carrying out any operation. When carrying out infrequent operations, even those covered by NSP, extra vigilance and a questioning, self-checking approach is required. Attention to detail is an essential feature of a robust Safety Culture. A questioning approach and routine self-checking are key elements of this culture.

At all times, plant operators and managers have a responsibility to consider the appropriateness of Standard and Emergency Operating Procedures and to apply them accordingly.

Plant parameters must be frequently checked and cross-checked by watchkeepers and supervisors to ensure the desired parameters are being achieved. Operators must fully consider all available indications.

It is vital that 'unqualified' operators are properly supervised by a Suitably Qualified and Experienced Person (SOEP). It is the responsibility of the NSRP supervisors to closely monitor, and if necessary correct, the actions of the panel operators.

The consideration and implementation of routine refresher training in support of Suitably Qualified and Experienced Personnel (SQEP) constitutes good safety management.

The utmost care and attention is to be employed to ensure the correct inspection and packaging of potentially contaminated components to or from any active area.

Preparation of NSI systems must be carried out strictly in accordance with the authorized documentation, regardless of the seemingly routine nature of the operation. Reliance is placed on the SQEPness of those staff carrying out the inspection to ensure that it is sufficient, thorough and meets the design intent of the authorized document.

The QM's position is a busy one and his areas of responsibility are numerous and diverse. He must not allow himself to be distracted from his duties.

Maintenance Activities

All personnel associated with the maintenance and repair of the NSRP must foster a Safety Culture which continually questions and checks the actions and decisions of both themselves and others and that advise is sought from the appropriate authority where doubt exists.

The reporting and assessment of maintenance activities must be diligently conducted to ensure that nuclear safety significant items are completed or subject to a concession request. Adequate management arrangements must be in place to ensure that all relevant information is available and fully considered.

The reporting and assessment of anomalies/defects found during nuclear significant maintenance activities must be diligently conducted to ensure that the required follow up action is undertaken. Where the work is under Nuclear Procedure control then the PAG Chairman is to be informed and action taken iaw BR3018.

In the interest of asset and personnel protection, the requirement for regular inspection of HV Shore Supply cables (and other shore services) can not be over emphasised .

The maintenance requirements associated with Design Change Requests must be clearly defined. The assessment of whether the requirements are 'clear and comprehensive' must be judged from the standpoint of the personnel responsible for implementation.

Clean and clear operations must be diligently conducted if they are to provide an effective safeguard against the ingress of foreign material into the primary circuit. NSI tape must never be removed without the presence of an NSI.

Safe operation of the NSRP requires rigorous attention to detail when carrying out any operation. The adequacy of examination, maintenance, inspection and testing (EMIT) in support of NRP test equipment should be considered.

Control of Contractors

The Lead Section must ensure that the contractor has a complete and clear understanding of the requirements of the authorised documentation and that all relevant information is available and fully considered.

The requirement for robust management arrangements for the briefing and control of contractors, particularly where NSI work is being undertaken, cannot be overstated.

Shore Supply

Inherent slow response of onboard instrumentation necessitates careful reduction of cable loading to prevent reverse power protection device operation.

Extra vigilance is required when operating close to shore supply trip settings. Careful distribution of onboard load and periodic checks between Ships Staff and the Control Engineer to ensure the desired parameters are being maintained constitutes good plant management.

When onboard electrical AC load is minimal, extra vigilance and awareness is required by operators/watchkeepers if loss of shore supply due to reverse power protection is to be avoided.

The capability for shore supply to support the starting of heavy loads must be carefully considered if overcurrent protection operation is to be avoided. Operators must give careful consideration to the correct adjustment of MG Recirculating current when backing off shore supply.

Management should be aware of the increased potential for shore supply trips when operating in a non preferred electrical line up, particularly when shore supply is heavily loaded. The provision of additional watchkeepers should be considered.