BARRIERS AND BARRICADES

STANDARD OPERATING PROCEDURE
1. PURPOSE AND SCOPE ................................................................. 2
2. DEFINITIONS .................................................................................. 3
3. ROLES AND RESPONSIBILITIES....................................................... 3
   3.1 AUTHORISED PERSON / PERSONNEL ........................................ 3
   3.2 BARRICADE TAG ...................................................................... 3
   3.3 SAFETY BARRIER .................................................................... 3
   3.4 SAFETY BARRICADE .............................................................. 3
4. PROCEDURE ...................................................................................... 4
   4.1 SPECIFIC REQUIREMENTS ....................................................... 4
   4.2 LEVEL 1 BARRIER: DELINEATION BARRIER ............................... 5
   4.3 LEVEL 2 BARRIER: DEMARCATION BARRIER ............................... 5
   4.4 LEVEL 3 BARRIER: HIGH RISK HAZARD BARRIER ..................... 6
5. REFERENCES ...................................................................................... 7

<table>
<thead>
<tr>
<th>ORIGINATOR</th>
<th>CLIENT</th>
<th>AUTHORITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAME &quot;&quot;: Henk Myburgh</td>
<td>NAME &quot;&quot;: Namakwa Sands</td>
<td>NAME &quot;&quot;:</td>
</tr>
<tr>
<td>SIGN:</td>
<td>SIGN:</td>
<td>SIGN:</td>
</tr>
<tr>
<td>DATE &quot;&quot;: January 2015</td>
<td>DATE &quot;&quot;:</td>
<td>DATE &quot;&quot;:</td>
</tr>
</tbody>
</table>
1. PURPOSE AND SCOPE
This standard outlines the safety requirements for barriers and barricades to ensure that all personnel and visitors are prevented or restricted from accessing areas where unfamiliar hazards may cause injury or damage.

This standard applies to all works on the Namaqua Engineering Projects.

2. DEFINITIONS
The terms barrier and barricade where used in this standard shall be interchangeable.

3. ROLES AND RESPONSIBILITIES

3.1 Authorised Person / Personnel
- A person who has the appropriate authority and PPE/C to proceed past or through and erected barrier (e.g. the person who has signed the applicable Mini HIRA and RA).

3.2 Barricade Tag
- A tag attached to every barrier or barricade identifying the date of erection, the reason for its erection, the intended duration and the contact name of the person responsible for that barrier.

3.3 Safety Barrier
- A safety barrier shall be any temporary or semi-permanent structure or fence erected to protect, or to expressly restrict access to, any authorised person who may be endangered by the presence of a hazard which has the potential to affect the health or to cause injury to personnel or inflict damage to property.
- A barrier can be constructed from any of the following materials or combination thereof – Barrier mesh, scaffolding tube or similar, free standing gates, or solid objects that have the capability to withstand 110 kg.
- The construction material used for a safety barrier shall be dependent on the intended purpose of the barrier.
- No danger tape is to be permitted for this use.

3.4 Safety Barricade
- A safety barricade shall be any temporary or semi-permanent structure erected across an access way to protect, or to expressly deny access to, any unauthorized person who may be endangered by the presence of a hazard which has the potential to affect the health or to cause injury to personnel or inflict damage to property.
- A barricade can be constructed from any of the following materials or combination thereof – chains, barrier mesh, scaffolding tube or similar, free standing gates, or solid objects. Supplementary materials include flagging rope and plastic tape in an emergency.
4. PROCEDURE

4.1 Specific Requirements

- Barriers or barricades shall be erected in all cases where the presence of a hazard which has the potential to affect the health or to cause injury to personnel or inflict damage to property has been identified.

- All barriers shall have a barricade tag attached at all designated access points if applicable. Where there are no designated access points, barrier tags shall be tied to the barrier at regular intervals to clearly identify the reason why the barrier was erected. Barrier tags are to be supplemented by use of warning/advisory signs where applicable.

- All details on the tag shall be completed by the person responsible for erecting and maintaining the barrier. (Contractor is responsible for the supply of the barriers tags).

- Only authorized personnel shall be entitled to proceed past, through, over or under a barrier. Unauthorized personnel seeking access to restricted areas shall first get approval from the contractor or person responsible for the erection of that barrier shall explain the hazards that have been identified or exist and the appropriate PPE that needs to be worn within the restricted area.

- Barriers shall be inspected on a regular basis, minimum daily, to ensure the standard and suitability of the barrier is adequately maintained for the life of the barrier. The date of each inspection shall be noted on the barricade register.

- The extent of an area to be barricaded shall be kept to a minimum so as not to restrict access unnecessarily. The extent and position of barriers shall be planned so that through access can be maintained where available and that adjustment barriers do not unnecessarily block of through access. As hazards are eliminated, the barriers shall be removed or relocated to open up access to others.

- Barriers shall not be left up for extended periods of time. Where it is not possible to eliminate the hazard for an extended period of time e.g., void in floor waiting for equipment, the hazard shall be isolated as close as possible to the hazard or controlled via other approved means.

- Only the responsible person nominated on the barricade tag shall be authorized to arrange for the removal, dismantling or modification of any erected barrier. In the event that the responsible person so nominated is not available, the site manager for the contractor involved may delegate that authority to another person. In the event that a barrier is found to be interfering with construction activities and the contractor concerned is unavailable and cannot be contacted, the Project Construction Manager shall be authorized to take the appropriate action deemed necessary to correct the situation, provided it is safe to do so and/or that other arrangements are made to isolate or control the hazard(s).

- There shall be three levels of barriers/barricades on this project. The level of barrier used shall be dependent on its intended purpose. The levels shall range from Level 1, which shall be used to mark boundaries of construction areas, up to Level 3, which shall be used to guard against high-risk hazards. The different barriers shall be used as follows:
4.2 **LEVEL 1 BARRIER: Delineation Barrier**

4.2.1 **Use**
A barrier shall be erected to mark the boundary or limit of construction activity so as to prevent unauthorized access by non-project inducted personnel and visitors and other project contractor personnel who are not the main contractor working within that area.

4.2.2 **Construction**
Minimum construction of long-term delineation barriers shall be snow netting attached to pickets firmly driven into the ground.

4.2.3 **Signs**
All barriers shall carry sufficient barricade tags and advisory signs at potential access points to clearly identify the reason why the barrier was erected.

Advisory signs shall read ‘Restricted Access – Construction Personnel Only’ or similar. Signs shall include company logo or identification of the contractor who has erected the barrier.

4.2.4 **Authorised Personnel**
- Any representative of the Project Management Team.
- Any personnel directly or indirectly (subcontract) employed by the contractor who has erected the barricade as per authorization granted by the contractor.
- Any other person, other than above, who has received express approval, to enter into the area.

4.2.5 **Purpose**
- Barriers shall be erected by each individual contractor to define the extent of their current work areas so as to restrict access to unauthorized persons. The purpose of a barrier shall be to restrict entry to those personnel who are not aware of the general construction activities taking place within that area and hazards associated with those construction activities.
- Barriers shall be used to safeguard personnel working within the area from external hazards adjacent to the work area e.g., vehicular traffic.

4.3 **LEVEL 2 BARRIER: Demarcation Barrier**

4.3.1 **Use**
A demarcation barrier shall be erected within a construction area to prevent unauthorized access temporarily into an area where a low risk event may exist or potentially exists. Examples of the use of demarcation barrier include abrasive blasting activities, men working above, and radioactive work.
4.3.2 Construction
Demarcation barriers shall be constructed, as a minimum, from snow netting (orange) attached to permanent structure or portable structure where insufficient permanent structure exists to accurately define the restricted area.

4.3.3 Signs
All demarcation barriers shall carry sufficient barricade tags and/or advisory signs at potential access points to clearly identify the reason for the erection of the barrier.

4.3.4 Authorised Personnel
- A supervisor who is directly responsible for the coordination and supervision of the works being carried out within the restricted area.
- An employee who is presently performing work in a restricted area as part of their normal duties under the direction of the supervisor.
- Any other person, other than above, who has received express approval, to enter into the area.

4.3.5 Purpose
- The purpose of a demarcation barrier shall be to restrict entry into an area within the normal contract construction area where specific low to medium risk hazards exist as a consequence of particular construction activities taking place.
- Demarcation barriers shall be erected by each individual contractor to define the extent of each such work area. These barriers shall be erected temporarily while those particular construction activities causing the hazard(s) are taking place and they are to be positioned to restrict access to unauthorized persons who may be endangered if they enter into that area.
- Only authorized persons equipped with the appropriate PPE to counter the specific hazard(s) identified by the RA for the particular activity may enter the restricted area.

4.4 LEVEL 3 BARRIER: High Risk Hazard Barrier

4.4.1 Use
A Level 3 barrier shall be erected within a construction area to prevent unauthorized access into an area where a high-risk hazard may exist or potentially exist. Examples of the use of Level 3 barriers include incomplete flooring or handrail system, penetrations in access ways or floors, excavations or pits, unguarded rotating fixed plant.

4.4.2 Construction
Barriers guarding against high risk hazards shall be constructed either from full barrier mesh, free standing gates, or solid objects, scaffolding tube or similar. Where tubing are used, top and mid rail sections shall be required as a minimum standard of construction. To further highlight the barrier, snow netting may be used to supplement the above construction.
4.4.3 Signs
All barriers shall carry sufficient barricade tags and/or advisory signs at potential access points to clearly identify the reason for the erection of the barrier.

4.4.4 Authorised Personnel
- A supervisor who is directly responsible for the coordination and supervision of the works being carried out within the restricted area.
- An employee who is presently performing work in a restricted area as part of their normal duties under the direction of the supervisor.
- Any Management Representative of the Project who is performing inspection work associated with that area.
- Any other person, other than above, who has received express approval from the erector of the barricade, to enter into the area.

4.4.5 Purpose
- The purpose of a Level 3 barrier shall be to restrict entry into an area within the normal contract construction area where high risk hazards exist as a consequence of particular construction activities taking place.
- These barriers shall be erected temporarily while those particular construction activities causing the hazard(s) are taking place and they are to be positioned to restrict access to unauthorized persons who may be endangered if they enter into that area.
- Only authorized persons who have read and understood the RA prepared for that construction activity, have been informed of all the relevant hazards, and are equipped with the appropriate PPE to counter the specific hazard(s) identified by the Mini HIRA and RA shall enter the restricted area.

5. REFERENCES
- Construction Regulation 9
- Mines and Works Act Regulation 20.3.1
- OH&S Act – General Safety Regulation 13(1)