# Tipping and dumping audit Site: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Date conducted:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| 1 Stockpile / dump design |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 1.1 | The design is such that any future potential instability, due to the physical properties of the material being dumped, is minimised. |  |  |
| 1.2 | The design is such that any future potential instability in dump material compaction, due to the size and weight of the equipment used during construction, is minimised. |  |  |
| 1.3 | The design is such that any future potential instability, due to the natural terrain and stability of the ground under the area of dump construction, is minimised. |  |  |
| 1.4 | The design is such that any future potential instability, due to the drainage characteristics of the material being dumped, is minimised. |  |  |
| 1.5 | The design is such that any future potential instability, due to the probable climatic conditions of the area, is minimised. |  |  |
| 1.6 | The design is such that any future potential hazard, due to the presence of hazardous material in the dump, is minimised. |  |  |
| 1.7 | The design is such that the hazards of dust generation from the dump are minimised. |  |  |
| 1.8 | The design is such that the hazards of contamination from dump water drainage are minimised. |  |  |
| 1.9 | The design is such that any potential hazards from dump instability, which could affect other infrastructure, are minimised. |  |  |
| 1.10 | The design is such that any potential hazards from dump instability or tipping activity, which could affect other infrastructure, has a containment bund of sufficient design and size to contain the material via a standard, procedure or risk assessment. |  |  |

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| 2 Stockpile / dump layout |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 2.1 | Demarcated routes, for use during either/both day and night, are provided to ideally separate traffic flows for access to, and exit from, the tipping areas. |  |  |
| 2.2 | Effective route marking, for use during either/both day and night, is provided to indicate the safe approach to, and exit from, the tipping point. |  |  |
| 2.3 | Turning, reversing and tipping areas are of sufficient size to permit manoeuvring by the largest equipment that is intended to be used. |  |  |
| 2.4 | There is restricted access to the toe of the tipping areas of waste / heap leach dumps. |  |  |
| 2.5 | Traffic control measures have been devised and implemented. |  |  |
| 2.6 | Overhead powerlines do not pass over areas where truck bodies may be elevated. |  |  |

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| 3 Operation |
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| **Point** | **Standard** | **Standard met** | **Comments** |
| 3.1 | There are written procedures for dumping at all specified locations, and for the different types of equipment in use. |  |  |
| 3.2 | Operators of equipment are tested on their knowledge of the relevant procedures before being authorised to work in a specific area. |  |  |
| 3.3 | Where dumping is carried out over an edge (dump or bin), and no spotter is used, hazards are reduced by the use of engineered backstops (width v height), or eliminated by tipping short and bulldozing. |  |  |
| 3.4 | Where dumping is carried out over an edge (dump or bin), and no spotter is used, technology is used to assist in achieving a safe operation. |  |  |
| 3.5 | Where dumping is carried out over an edge (dump or bin), and no effective back stop has been provided, a spotter must be used. |  |  |
| 3.6 | Where night time dumping is carried out, the work area and dump edge are illuminated by stationary lighting. |  |  |
| 3.7 | During each working shift the dump surfaces, edges and faces are inspected by a competent person for any evidence of instability. |  |  |
| 3.8 | There is a rising, or at least a flat, grade towards the dump edge. |  |  |
| 3.9 | The dump tipping edges in use are straight with no curves and the windrows/backstops are maintained in height and profile. |  |  |
| 3.10 | There is regular maintenance of dump surfaces as well as the access and exit routes. |  |  |
| 3.11 | There is control of dust generation by the use of water trucks, spray systems, etc. |  |  |
| 3.12 | There is restricted access to tipping areas for light vehicles and personnel on foot. |  |  |
| 3.13 | Simultaneous dumping over the edge of a stockpile and loading out from its base is only carried out where there is sufficient separation between the work locations such that undermining of the dumping location is not possible. |  |  |
| 3.14 | No dumping directly into bodies of water is carried out. |  |  |
| 3.15 | Hazardous conditions are reported when observed and remedial action is taken. |  |  |
| 3.16 | Spotters, if used, are required to be stationed in a safe location. |  |  |
| 3.17 | Spotters, if used, are provided with weather protection. |  |  |
| 3.18 | Spotters, if used, are protected from dust. |  |  |
| 3.19 | Spotters, if used, wear reflective clothing. |  |  |
| 3.20 | There is a standard code of signals for use between spotters and truck operators. |  |  |

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