

|                                                                                 |                        |                                                |                                                                                                                                                     |                                                                 |             |                                    |     |     |     |     |     |     |     |     |     |      |                 |                                                                          |  |  |  |
|---------------------------------------------------------------------------------|------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------|------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----------------|--------------------------------------------------------------------------|--|--|--|
|  |                        | CORRECTIVE ACTION TIMING PLAN                  |                                                                                                                                                     |                                                                 |             | BUSINESS UNIT :-<br>Pontypool Site |     |     |     |     |     |     |     |     |     |      |                 | HSE 0064 & HSE 0065<br>January 2018                                      |  |  |  |
|                                                                                 |                        |                                                |                                                                                                                                                     |                                                                 |             | CHAMPION :-<br>Shane Thomas        |     |     |     |     |     |     |     |     |     |      |                 | DATE :-<br>21/01/2018                                                    |  |  |  |
|                                                                                 |                        | OWNER :-<br>S. Thomas<br>Phone :- 4178         |                                                                                                                                                     | SUBJECT :-<br><br>Corrective actions ref. ISO 14001 issues 2018 |             |                                    |     |     |     |     |     |     |     |     |     |      |                 |                                                                          |  |  |  |
| No.                                                                             | ELEMENT                | CONCERN                                        | CORRECTIVE ACTION                                                                                                                                   | Resp.                                                           | Target Date | Initiated                          | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | Action Complete | COMMENTS                                                                 |  |  |  |
| 1                                                                               | Legislative compliance | Compliance with IPPC permit conditions         | Provide annual usage figures for effluent, water waste & energy for 2017 to the NRW                                                                 | ST                                                              | Feb '18     |                                    |     |     |     |     |     |     |     |     |     |      | Jan '18         | Information submitted                                                    |  |  |  |
| 2                                                                               | Legislative compliance | Compliance with IPPC permit conditions         | IC4 - Review emission of zinc released via the V-notch to reduce levels to benchmarks noted in section 3.2.2 of the Agency Guidance Note IPPC S2.07 | ST                                                              | Feb '18     |                                    |     |     |     |     |     |     |     |     |     |      | Jan '18         | Information submitted                                                    |  |  |  |
| 3                                                                               | Legislative compliance | Compliance with IPPC permit conditions         | IC6 - Undertake an assessment of the energy management improvement measures on site                                                                 | ST/NJ                                                           | Jul '18     |                                    |     |     |     |     |     |     |     |     |     |      | Jul '18         |                                                                          |  |  |  |
| 4                                                                               | Legislative compliance | Compliance with IPPC permit conditions         | IC7 - Carry out a water efficiency audit of the installation                                                                                        | ST/AE/B J                                                       | Sep '18     |                                    |     |     |     |     |     |     |     |     |     |      | Sep '18         |                                                                          |  |  |  |
| 5                                                                               | Legislative compliance | Compliance with IPPC permit conditions         | Review OPERA scoring based on actual data for 2017                                                                                                  | ST                                                              | Mar '18     |                                    |     |     |     |     |     |     |     |     |     |      | Mar '18         |                                                                          |  |  |  |
| 6                                                                               | Legislative compliance | Compliance with IPPC permit conditions         | Provide NRW with completed Annual Pollution Inventory for the site with 2017 data                                                                   | ST                                                              | Mar '18     |                                    |     |     |     |     |     |     |     |     |     |      | Mar '18         | Completed online                                                         |  |  |  |
| 7                                                                               | Energy Management      | Energy Monitoring/reduction                    | Develop energy (Electrical) KPIs for the each cell - Collect base line data for energy usage in each cell.                                          | BJ/NJ                                                           | Aug '18     |                                    |     |     |     |     |     |     |     |     |     |      |                 | Activity paused due to fault with submetering                            |  |  |  |
| 8                                                                               | Energy Management      | Energy Monitoring/reduction                    | Develop energy (Gas) KPIs for the each process equipment using gas within the process                                                               | BJ/NJ                                                           | Aug '18     |                                    |     |     |     |     |     |     |     |     |     |      |                 | Issue with sub metering - overall gas usage Kpi used                     |  |  |  |
| 9                                                                               | Ground Contamination   | Current site contamination from past processes | Continue with the remediation of chlorinated solvent contamination with the TRW Remediation Team Arcadis                                            | ST                                                              | Dec '18     |                                    |     |     |     |     |     |     |     |     |     |      | Dec '18         | Ongoing actions in 2019                                                  |  |  |  |
| 10                                                                              | Ground Contamination   | Ground contamination prevention                | Inspect interceptor for oil contamination & clean out if necessary                                                                                  | NJ                                                              | Jul '18     |                                    |     |     |     |     |     |     |     |     |     |      | Jul '18         |                                                                          |  |  |  |
| 11                                                                              | General                | Hazardous materials management                 | Document periodic visual inspections carried out on Asbestos Containing Materials.                                                                  | ST                                                              | Dec '18     |                                    |     |     |     |     |     |     |     |     |     |      | Dec '18         |                                                                          |  |  |  |
| 12                                                                              | General                | Housekeeping throughout the site               | Continue with the 5C/Housekeeping improvement projects in each business.                                                                            | All                                                             | Dec '18     |                                    |     |     |     |     |     |     |     |     |     |      | Dec '18         | Ongoing actions in 2019                                                  |  |  |  |
| 13                                                                              | General                | Control of dangerous weeds                     | Continued treatment of japanese knotweed on site.                                                                                                   | NJ                                                              | Dec '18     |                                    |     |     |     |     |     |     |     |     |     |      | Dec '18         | Now to include the field at the rear of the plant                        |  |  |  |
| 14                                                                              | Waste Management       | Waste Management                               | Recommunicate the segregation poiley                                                                                                                | ST                                                              | May '18     |                                    |     |     |     |     |     |     |     |     |     |      | May '18         | Communicated through weekly team brief                                   |  |  |  |
| 15                                                                              | General                | Information knowledge                          | Conduct MWF refresher training                                                                                                                      | ST                                                              | Oct '18     |                                    |     |     |     |     |     |     |     |     |     |      | Oct '18         |                                                                          |  |  |  |
| 16                                                                              | Legislative compliance | Nuisance                                       | Conduct internal noise survey                                                                                                                       | ST                                                              | Oct '18     |                                    |     |     |     |     |     |     |     |     |     |      |                 | Action held over to 2019<br>Specific noise issues investigated as needed |  |  |  |
| 17                                                                              | Legislative compliance | Nuisance                                       | Conduct external noise survey                                                                                                                       | ST                                                              | Oct '18     |                                    |     |     |     |     |     |     |     |     |     |      |                 | Action held over to 2019<br>Specific noise issues investigated as needed |  |  |  |
| 18                                                                              | Energy Management      | Energy Monitoring/reduction                    | Reduce air leaks by removing old/redundant equipment                                                                                                | BJ/NJ                                                           | Jul '18     |                                    |     |     |     |     |     |     |     |     |     |      |                 | Ongoing actions in 2019                                                  |  |  |  |
| 19                                                                              | Energy Management      | Energy Monitoring/reduction                    | Identify and remove redundant compressed air pipe work                                                                                              | BJ/NJ                                                           | Jul '18     |                                    |     |     |     |     |     |     |     |     |     |      |                 | Ongoing actions in 2019                                                  |  |  |  |
| 20                                                                              | General                | Legionella Management                          | Carry out remedial works in line with the 2017 Legionella risk assessment                                                                           | NJ                                                              | Jul '18     |                                    |     |     |     |     |     |     |     |     |     |      | Jul '18         |                                                                          |  |  |  |
| 21                                                                              | General                | Legionella Management                          | Remove redundant water pipe work to reduce dead ends, etc                                                                                           | NJ                                                              | Jul '18     |                                    |     |     |     |     |     |     |     |     |     |      |                 | On-going activity in 2019 as per risk assessment                         |  |  |  |

|                                                                                 |                   |                                                 |                                                                                                                                 |                                                                 |             |           |     |     |     |     |     |                                    |     |     |     |      |                 |                                                                            |  |                                  |  |                                     |  |
|---------------------------------------------------------------------------------|-------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------|-----------|-----|-----|-----|-----|-----|------------------------------------|-----|-----|-----|------|-----------------|----------------------------------------------------------------------------|--|----------------------------------|--|-------------------------------------|--|
|  |                   | CORRECTIVE ACTION TIMING PLAN                   |                                                                                                                                 |                                                                 |             |           |     |     |     |     |     | BUSINESS UNIT :-<br>Pontypool Site |     |     |     |      |                 |                                                                            |  |                                  |  | HSE 0064 & HSE 0065<br>January 2018 |  |
|                                                                                 |                   |                                                 |                                                                                                                                 |                                                                 |             |           |     |     |     |     |     | CHAMPION :-<br>Shane Thomas        |     |     |     |      |                 |                                                                            |  |                                  |  |                                     |  |
|                                                                                 |                   | OWNER :-<br>S. Thomas<br>-----<br>Phone :- 4178 |                                                                                                                                 | SUBJECT :-<br><br>Corrective actions ref. ISO 14001 issues 2018 |             |           |     |     |     |     |     |                                    |     |     |     |      |                 |                                                                            |  |                                  |  | DATE :-<br><br>21/01/2018           |  |
|                                                                                 |                   |                                                 |                                                                                                                                 |                                                                 |             |           |     |     |     |     |     |                                    |     |     |     |      |                 |                                                                            |  | Last update :-<br><br>20/02/2019 |  |                                     |  |
| No.                                                                             | ELEMENT           | CONCERN                                         | CORRECTIVE ACTION                                                                                                               | Resp.                                                           | Target Date | Initiated | 10% | 20% | 30% | 40% | 50% | 60%                                | 70% | 80% | 90% | 100% | Action Complete | COMMENTS                                                                   |  |                                  |  |                                     |  |
| 22                                                                              | General           | Emergency planning                              | Plan a fire evacuation for q1 2018 accross all 3 shifts                                                                         | ST                                                              | Jun-18      |           |     |     |     |     |     |                                    |     |     |     |      | Jun-18          |                                                                            |  |                                  |  |                                     |  |
| 23                                                                              | Energy Management | Energy Monitoring/reduction                     | Install sub metering                                                                                                            | NJ                                                              | Apr '18     |           |     |     |     |     |     |                                    |     |     |     |      | Dec '18         |                                                                            |  |                                  |  |                                     |  |
| 24                                                                              | General           | Training                                        | Provide refresher training for plant controllers                                                                                | ST                                                              | Dec '18     |           |     |     |     |     |     |                                    |     |     |     |      | Dec '18         |                                                                            |  |                                  |  |                                     |  |
| 25                                                                              | Waste Management  | Waste Management                                | Review waste disposal for chemical containers as previous recycling route is no longer available                                | ST                                                              | Jun-18      |           |     |     |     |     |     |                                    |     |     |     |      | Jun-18          | No current viable alternative available.                                   |  |                                  |  |                                     |  |
| 26                                                                              | Energy Management | Energy Monitoring/reduction                     | Review Machine shutdown procedures to maximise energy saving when not in use                                                    | ST                                                              | Jun-18      |           |     |     |     |     |     |                                    |     |     |     |      | Jun-18          | Shutdown procedures produced for equipment                                 |  |                                  |  |                                     |  |
| 27                                                                              | General           | Air Emissions                                   | Conduct internal air monitoring around the zinc nickel plant.                                                                   | ST                                                              | Oct '18     |           |     |     |     |     |     |                                    |     |     |     |      | Oct '18         | No issues identified                                                       |  |                                  |  |                                     |  |
| 28                                                                              | General           | Air Emissions                                   | Conduct internal air emissions testing in Caliper machine shop.                                                                 | ST                                                              | Oct '18     |           |     |     |     |     |     |                                    |     |     |     |      | Oct '18         | Completed 15th Sept                                                        |  |                                  |  |                                     |  |
| 29                                                                              | General           | Hazardous materials management                  | Investigate creation of an electronic COSHH database to allow access to MSDS sheets throughout the site                         | ST                                                              | Dec '18     |           |     |     |     |     |     |                                    |     |     |     |      |                 | On-going - Excel spreadsheet set up                                        |  |                                  |  |                                     |  |
| 30                                                                              | Waste Management  | Water usage & effluent produced                 | Re-investigate regeneration plant for zinc nickel process                                                                       | AE/NJ                                                           | Dec '18     |           |     |     |     |     |     |                                    |     |     |     |      | Dec '18         | Not currently feasible                                                     |  |                                  |  |                                     |  |
| 31                                                                              | Waste Management  | Waste Management                                | Review waste streams and conduct cost benchmarking exercise                                                                     | ST                                                              | Dec '18     |           |     |     |     |     |     |                                    |     |     |     |      | Dec '18         |                                                                            |  |                                  |  |                                     |  |
| 32                                                                              | Waste Management  | Quantity of sludge tankers required             | Re-investigate capacity of the filter presses to improve filter cake production and reduce req <sup>mt</sup> for sludge tankers | ST/NJ                                                           | Nov '18     |           |     |     |     |     |     |                                    |     |     |     |      |                 | On-going - reduced sludge collection to approximately one tanker per month |  |                                  |  |                                     |  |
| 33                                                                              | Waste Management  | Waste Management                                | Re-investigate splitting costs for waste to individual processes to help improve determination of process running costs         | ST                                                              | Oct '18     |           |     |     |     |     |     |                                    |     |     |     |      | Oct '18         | Currently difficult to spearate wastes out.                                |  |                                  |  |                                     |  |
| 34                                                                              | Waste Management  | Change to new larger anodes                     | Review the effect of increasing the size of the zinc nickel anodes on the waste produced                                        | ST/AE                                                           | Sep '18     |           |     |     |     |     |     |                                    |     |     |     |      | Sep '18         | Anodes increased from 28Kg to 33Kg                                         |  |                                  |  |                                     |  |
| 35                                                                              | Waste Management  | Level of components being replated              | Investigate the quantity of components which need to go back through the zinc & zinc nickel process due to poor plating         | AE                                                              | Jul '18     |           |     |     |     |     |     |                                    |     |     |     |      | Jul '18         | Process in place to track rework                                           |  |                                  |  |                                     |  |
| 36                                                                              | Waste Management  | Waste Monitoring/reduction                      | Re-investigate developing meaningful KPIs for waste                                                                             | ST                                                              | Oct '18     |           |     |     |     |     |     |                                    |     |     |     |      | Oct '18         | Kpi developed for overall wastes in terms of units produced                |  |                                  |  |                                     |  |
| 37                                                                              | Energy Management | Energy Monitoring/reduction                     | Develop an Energy Profile for the site                                                                                          | ST                                                              | Oct '18     |           |     |     |     |     |     |                                    |     |     |     |      | Oct '18         | Energy submetering in place                                                |  |                                  |  |                                     |  |
| 38                                                                              | Energy Management | Energy Monitoring/reduction                     | Review ESOS Process in preparation for Stage 2                                                                                  | ST                                                              | May '18     |           |     |     |     |     |     |                                    |     |     |     |      | May '18         |                                                                            |  |                                  |  |                                     |  |
| 39                                                                              | Energy Management | Energy Monitoring/reduction                     | Re-investigate localised boiler units for process plants                                                                        | BJ/NJ                                                           | Dec '18     |           |     |     |     |     |     |                                    |     |     |     |      | Dec '18         | Not currently feasible                                                     |  |                                  |  |                                     |  |
| 40                                                                              | Waste Management  | Waste Management                                | Segregate the aluminium filter paper from the cast iron so that it can be disposed of separately                                | ST                                                              | Jan '18     |           |     |     |     |     |     |                                    |     |     |     |      | Jan '18         | Aluminium filter paper now segregated into clip top drums for disposal     |  |                                  |  |                                     |  |