

ISO 24297:2022-07 (E)

Guidelines for treatment and reuse of leachate from municipal solid waste (MSW) incineration plants

| Contents | | Page |
|--------------------|--|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 4 | Abbreviated terms | 2 |
| 5 | General principles | 3 |
| 5.1 | General | 3 |
| 5.2 | Safety | 3 |
| 5.3 | Reliability | 4 |
| 5.4 | Stability | 4 |
| 5.5 | Economic sustainability | 4 |
| 5.6 | Environment | 4 |
| 6 | Quantity and quality of the MSW leachate | 4 |
| 6.1 | Quantity | 4 |
| 6.2 | Quality | 5 |
| 6.3 | Influencing factors and considerations | 6 |
| 7 | Treatment system design for the MSW leachate | 6 |
| 7.1 | Treatment process | 6 |
| 7.2 | Treatment system | 7 |
| 7.2.1 | Preliminary treatment | 7 |
| 7.2.2 | Biological treatment | 8 |
| 7.2.3 | Advanced treatment for reuse | 9 |
| 7.3 | Monitoring system | 10 |
| 7.4 | Auxiliary treatment | 11 |
| 7.4.1 | General | 11 |
| 7.4.2 | Sludge | 11 |
| 7.4.3 | Concentrate | 11 |
| 7.4.4 | Biogas | 12 |
| 7.4.5 | Odour | 12 |
| 7.4.6 | Foam | 12 |
| 7.4.7 | Noise | 12 |
| 8 | Reuse of treated leachate | 12 |
| 8.1 | Reuse application considerations | 12 |
| 8.2 | Reclaimed water quality considerations | 12 |
| 9 | Environmental and occupational health and safety | 13 |
| 9.1 | Identification of health and safety risks | 13 |
| 9.2 | Establishment of health and safety programmes | 13 |
| 9.3 | Safety considerations in system design | 13 |
| 9.4 | Implementation of health and safety equipment | 14 |
| 9.5 | Training | 14 |

| | | |
|------------|--|-----------|
| 9.6 | Management of incidents and emergencies | 14 |
| | Annex A (informative) Process parameters for leachate treatment system design | 15 |
| | Annex B (informative) Quantity generation of MSW leachate | 17 |
| | Annex C (informative) Potential treatment options for MSW leachate | 18 |
| | Annex D (informative) Overview of MSW composition and treatment | 19 |
| | Bibliography | 28 |