



southern
water

The Discharger

Trade Waste Industry Information Bulletin

Issue three: July 2011



Southern Water has moved!

In March 2011 Southern Water's head office moved and is now based at 169 Main Rd, Moonah.

Some teams are still temporarily based at Negara Crescent, including our Service Delivery and field crew teams and Facilities and Logistics, who look after fleet, plant, equipment, stores and facilities. We also have crews stationed around the state in regional depots.

Our new head office, which some might remember as the old Hydro building, is located on the Ground Floor, Level 1 and Level 2, with Quarantine Tasmania as our co-tenant on Level 3. Entrance to our office is via Main Road, Moonah and reception hours are from 8.15am to 5:00pm. Visitors to the building need first report to reception Desk and sign the visitors register. There are reserved parking spaces for visitors on the north side of the building.

We now have six new meeting rooms with some including smartboard and video conferencing facilities.

Trade Waste charges in the pipeline

Southern Water is developing a pricing model that is based upon the cost of treatment of liquid wastes by the wastewater treatment plants. The charge will differ depending upon the customer category as determined by the Liquid Trade Waste Charging and Management Policy.

Category 4 customers: pricing for charging parameters and corresponding exceedence charges will be submitted to the Economic Regulator for approval by 30 September 2011. All new Category 4 customers will be subject to new charges and transition plans will need to be negotiated with all existing customers. All Category 4 customers will transition to a formal trade waste agreement with Southern Water.

Category 3 customers: timing is as for Category 4 customers but charging will be volume based and deemed concentration but agreements will specify parameter concentrations which will not be accepted. Category 3 customers will transition to a formal trade waste agreement or consent (risk based) with Southern Water.

Category 2 and 1 customers: timing for charges associated with existing customers is subject to the approval of Southern Water's Price and Service Plan by the Economic Regulator which is currently scheduled to be 30 June 2012. Charging for new Category 1 and 2 customers may be in place before this determination.

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Focus on customers

Cadbury Claremont's Trade Waste Challenges



Southern Water thanks Cadbury for taking the time to present to our Customer Consultative Group and for sharing their experiences with the broader Industrial Trade Waste community. Kraft Foods operate the Cadbury site at Claremont, manufacturing chocolates and confectionary for sale in the Australian and international market.

Cadbury Claremont Trade Waste Plant

There are two separate manufacturing plants operating on the Claremont factory site;

- The Crumb Plant, where the effluent produced is predominantly concentrated milk and sugar; and
- The chocolate manufacturing areas, where there is a more complex mixture of ingredients.

This leads to two very distinct wastewater streams feeding into the Trade Waste Plant at varying flow rates and concentrations relative to production processes and production demands.

Cadbury's challenges are to maintain a healthy Trade Waste Plant and meet the standards set out in our Trade Waste Agreement as a minimum.

Our issues at this point in time are;

- Our effluent flow rate has increased over the past two years due to changes in production systems
 - Our BOD5 level and Suspended Solids concentrations are increasing in line with the additional flows
 - The volume of Magnesium Hydroxide Liquid used for pH balancing is increasing
 - The sulphide level in our effluent sent to the treatment plant is above current Trade Waste Agreement standard for acceptance
 - There is an expectation that there will be further increases in sites overall effluent volume over the next 12 months
- We are currently in the process of engaging the services of a waste water consultant to evaluate the performance of our Trade Waste Plant.

From this we expect recommendations for system improvements to increase the overall performance of the plant and the quality of the effluent presented to the Cameron Bay Waste Water Treatment Plant.

Corporation News

State of the Industry report released

Tasmania's independent Economic Regulator released its third annual review of the State's water and sewerage industry. Drinking water quality across the State remains an issue, with 24 permanent boil water alerts in place to manage the potential risk to public health. The performance of the State's wastewater treatment plants (WWTPs) continues to be a problem, with 71 out of the 78 WWTPs underperforming against the compliance limits set by the Environment Protection Authority.

Committee extends timeframe to take into account recent changes

The committee reporting into Water and Sewerage has extended its time to report until April next year to enable it to take into account the impact of the recent legislative changes included in the Water and Sewerage Industry Amendment Bill, which passed

through the lower house last month.

The changes included in this legislation have far reaching implications for the pricing of water and sewerage into the future as well as the returns that may be enjoyed by the local Government owners of the corporations so the committee felt it was important that they were able to assess the impacts fully before reporting.

As the impact on customer pricing post the first of July 2012 is still unknown – as is the impact on local government – along with modelling and infrastructure upgrade needs, the committee also decided unanimously to extend its reporting date so that further advice on this matter from the Economic Regulator can be assessed and taken into account prior to handing down its final report.

On the Statewide Scene



Feedback on Trade Waste Agreement conditions

At the Customer Consultative Group meeting in February 2011, the group provided valuable feedback to Southern Water on the generic Trade Waste Agreement conditions developed by Andrew Sherman from Russell Kennedy.

The feedback required some clarification of terms which Southern Water has sought from Andrew's advice as follows:

Guarantors and Security

The proposed generic agreement includes an ability to call for a Guarantor to the agreement. A Guarantor is often required where the Customer is a Company and the water business is seeking a personal guarantee of a director of the Company in relation to the obligations of the Customer, including the obligation to pay charges.

The concept of the personal guarantee of a director for the obligations of the Company is something which would be familiar to most organisations.

Notably, a Guarantor is a different concept to the provision in the generic agreement for security. Security is a financial amount guaranteed "up-front" in relation to the payment of charges or the performance of other obligations under the generic agreement. This would often take the form of a bank guarantee or possibly an insurance bond.

A particular trade waste agreement in relation to a specific customer could include, or exclude, the need for Guarantors, security or both.

Breach of agreement versus significant event

We do not attempt to define a significant event in the standard agreement because, firstly, it may be we cannot predict what that future significant event might be and secondly, that will need to be considered in the light of the facts at the particular time.

Obviously, there can be many minor breaches of an agreement which would not meet the requirement for a significant event. If such a question ever needed to be decided by a court, it would obviously be decided in accordance with the particular circumstances.

The illegal dumping of a significantly corrosive substance which caused major impact to the sewerage infrastructure or some sort of spill or environmental event which had caused damage to property or the environment may fall into that category.

Whilst the above is not a perfect explanation, there will certainly be cases where it is very clear a breach is minor and there will

be cases where it is very clear that the breach is a "significant event". Otherwise, for those middle circumstances, the facts of the particular breach or event would need to be considered.

Indemnity

The standard agreement includes both release and indemnity clauses. We distinguish those below.

A release is where a particular party (to an agreement) agrees to release or not take action against the other party (to the agreement).

An indemnity, in the context of this trade waste agreement, is where the Customer will effectively reimburse the corporation if some third party were to take an action against the corporation arising out of a breach of the trade waste agreement by the Customer. For example, due to the action of a Customer, there was a spill and an adjoining property owner made a successful claim against the water business, the Customer may be required to indemnify the water business in that respect.

The word "indemnity" is also used in the context of the potential for guarantees to be provided to the water business under the terms of the trade waste agreement.

In this case, the Guarantor "indemnifies" the Corporation from the actions of the Customer. For example, if the Customer (who is a private individual) fails to pay outstanding charges the Guarantor must pay those charges pursuant to the indemnity.

On the National Scene

An application has been put forward to the Australian Research Council for funding a project to develop a multi-sensor platform (MSP) that can reliably operate in wastewater environments.

The proposed MSP will utilise new analytical approaches to acquire important sewage quality data real-time and rapidly determinate anomalous sewage quality changes (events) that could adversely impact the sewerage system operation and by-product reuse.

An integrated MSP network will be developed to enable real-time prediction of the impact of events to inform decision makers, which would improve wastewater source management.

On
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Calendar

Customer Consultative Group

The plan for the next meeting is to present the Trade Waste Pricing Model. The meeting will be at 2:00 - 4:40pm on 1st September 2011 at the Goodwood Technopark. Please contact Lauren Moraitis on Lauren.Moraitis@southernwatertas.com.au or phone 6237 8284 to RSVP for this session.

Sulphur in the sewer

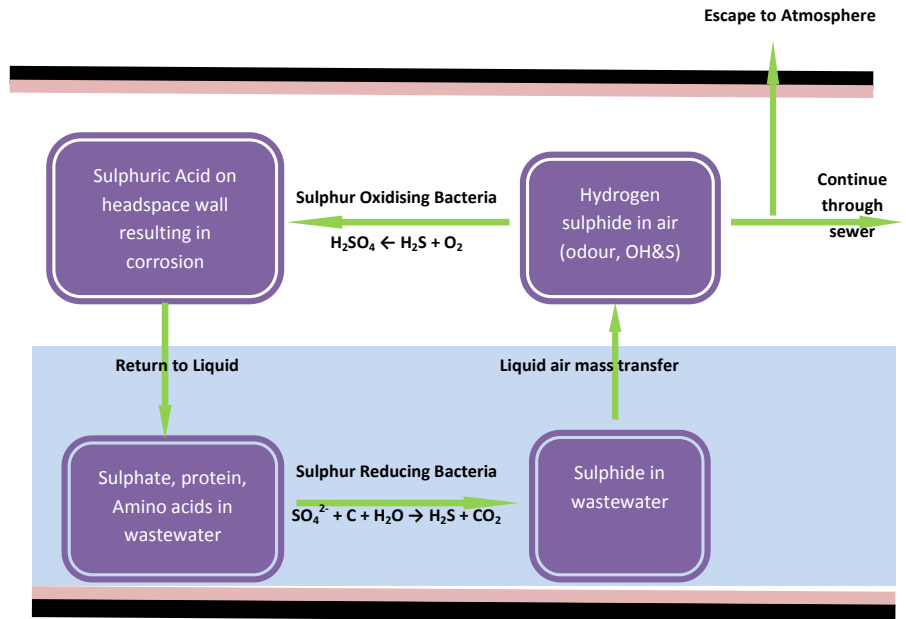
Sulphur is listed as a priority substance for protection of assets in the WSAA 2009 Wastewater Source Management Guideline.

While all sulphur compounds are undesirable, sulphide provides the highest risk to sewer systems.

Sulphide has the potential to combine with free hydrogen atoms to produce sulphuric acid (H₂SO₄), resulting in the corrosion of sewer systems including mains, manholes and sewerage pump stations, and it also impacts upon WWTPs. Oxidised sulphur (SO₄) may also reduce to sulphide (S²⁻) under anoxic conditions leading to the development of hydrogen sulphide gas (H₂S) which is asphyxiating to humans and can result in death as well as being a potentially explosive gas.

The presence of high BOD in the sewer can lead to anoxic conditions, increasing the risk of noxious sulphide compounds being formed. Therefore the level of BOD is taken into consideration when determining the acceptance limit of sulphur compounds.

All Category 4 customers must monitor for Sulphate, Sulphite and Thiosulphate for charging purposes. Customers producing inconsistent levels of sulphur compounds or at a level of concern



are also required to monitor for Sulphide.

Laboratories should provide results as for Sulphate, Sulphite, Thiosulphate and Sulphide expressed as mg/L plus Oxidised Sulphur as the sum of Sulphur in Sulphate, Sulphite and Thiosulphate in mg/L expressed as Sulphur for reporting purposes.

Meet the Team

Nigel McCormick - Wastewater Source Management Officer

Nigel McCormick has worked in the wastewater industry for five years, starting at Hobart City Council as a Liquid Waste Technical Officer and later transferring to Southern Water where he now works as a Wastewater Source Management Officer.

In this role Nigel performs a range of duties including: responding to wastewater source management related incidents such as grease blockages through field investigation and collection of samples for laboratory testing; conducting trade waste sampling programs for major customers to determine quality of wastewater discharged to sewer for charging and compliance purposes; assessing trade waste applications for pre-treatment requirements; inspecting trade waste

installations; providing advice to trade waste customers on pre-treatment options; assisting in the operation and maintenance of trade waste monitoring equipment and assisting industry in the responsible management of liquid trade waste, including provision of data to assist the optimisation of pre-treatment facilities.

Recent work Nigel has had involvement in includes: investigation into flow accuracy of trade waste inline monitoring stations; budgeting for 2011/12 source management sampling requirements and assessment of development applications including supermarket upgrades and contaminated site wastewater treatment reconfigurations.



Wastewater Source Management Officer Nigel McCormick (standing) examining the condition of a manhole with a Southern Water colleague.