Position Paper - GCC Industrial Waste Management

Paving the Road for Implementing Best Practices and Duty of Care

Background

The objectives of this position paper are to both highlight the challenges arising from the management of industrial waste from the chemical and petrochemical industry within the GCC, and to identify the potential benefits and opportunities should the key stakeholders collaborate. The main areas of concern are firstly, the lack of a consistent regulatory framework and industrial waste management infrastructure across the GCC and secondly, the apparent lack of focus and strategy across the regional chemical industry with regards to the elimination and minimization of process waste streams, especially hazardous industrial waste.

GPCA member companies are continually increasing their production capabilities and product ranges and with this often comes a corresponding increase in industrial waste generation. This additional industrial waste generation, if not well managed, will have a potential negative impact on the environment as well as creating future liability and negative publicity for the chemical industry.

Each of the GPCA Full member companies has committed, via the Responsible Care Global Charter®, to implement corporate principles, policies and processes to drive continuous improvement in waste management, however, there remains a challenge in managing industrial waste and especially in locations with limited waste management infrastructure. Accordingly, the GPCA Industrial Waste Task Force was established and tasked to help the chemical industries to better focus on understanding their waste management options, sharing best practices and tracking improved performance into the future.

Industry Impact

It is recognized by the chemical industry that inadequate management of waste has been shown to create serious business risks such as, economic loss, poor public relations and significant future liabilities arising from long term damage to the natural environment and risk to public health. It is also recognized that failure to manage industrial wastes effectively will have broad reaching implications

Impact on other Stakeholders

The key stakeholders in the industrial waste management sector in the GCC, besides industry, are the regulators, industrial waste management industry service providers (transporters, treatment facilities, and recyclers) and the public. Legal frameworks for waste management have been established in GCC countries and cover the key areas, such as, waste generation, storage, transportation, exportation, reusing, recycling, treatment, and disposal. There is, however, no coherent regulatory framework and enforcement that covers the GCC, which results in an inconsistent approach by industry. In addition, there is also a lack of availability of a comprehensive waste management infrastructure that meets the needs of industry. This is an impediment to establishing good industrial waste management practices and acts as a major deterrent to potential investors from entering an important, and potentially lucrative market sector. Regulators, waste management service providers and industry need to collaborate to support the development of an effective industrial waste management program for the GCC, which will support sustainable development in the region by providing job opportunities, reducing industrial waste generation and the use of natural resources such as landfills.

Current Situation

GPCA member companies have predominantly implemented industrial waste management practices in the areas of elimination, reduction, recovery, reuse and recycling. As previously stated, there has been no consistent industrial waste management approach adopted, largely due to inconsistent regulations and enforcement across the GCC. This has been further aggravated by the lack of the necessary infrastructure required to receive and dispose of these wastes in a safe and environmentally sound manner. There is also evidence that opportunities to recycle and / or reuse have not been fully explored. Hence, the chemical industry can do more to better understand the profile of generated wastes and to use a more structured approach to ensuring their effective disposition. GPCA members would benefit from guidance to ensure a uniform approach across the chemical industry.

In addition, there is also evidence that some countries lack the required infrastructure to properly receive, treat and dispose of all the different types of industrial waste. This is an issue for the Regulators to act upon by issuing clear expectations and regulations. Accordingly, this should also provide a stimulus for further investment into the industrial waste management sector.

Proposal to Address the Issue

In conclusion, effective management of industrial waste is a prerequisite of Responsible Care® for society and the environment and for this reason, all parties involved in the sector need to collaborate to ensure effective management systems and necessary infrastructure are in place. Effort should also be made to seek alignment with relevant International regulations, such as the UN Sustainable Development Goals (SDG's) and the EU Waste Framework Directive to take advantage of their learnings.

Clearly industry, as a primary industrial waste generator, has a responsibility for ensuring that industrial waste is managed in a responsible manner adopting the principle of Best Available Techniques (BAT). This technique is effectively the application of the most effective and advanced production processes, methods, technologies and operational practices to prevent or as a minimum reduce emissions, water discharges and waste streams, and any other potential impacts on the environment. This methodology targets compliance with regulatory standards while, also considering energy requirements, environmental and economic impacts. While the application of BAT has the greatest benefit during the design of a new facility it can still be of value for established facilities, although economic factors can become an increasing burden and affect the decision-making processes. Older manufacturing facilities, may not have cost effective options to eliminate, reduce or recycle but should nonetheless establish an industrial waste management plan that identifies all waste streams and their characteristics. This can then form the basis for evaluating options and defining the optimum method for handling each industrial waste stream. GPCA can lead this process through its Industrial Waste Task Force.

Way Forward

There continues to be potential improvement opportunities for the management of industrial wastes generated by the manufacturing members of GPCA. GPCA itself also has an important role to play by not only supporting its' member companies but also advocating a coordinated approach to regulations, enforcement and the provision of a comprehensive industrial waste management infrastructure which meets the needs of the GCC industries. There will continue to be challenging aspects of industrial waste management that will need to be resolved but the following actions will provide a solid foundation:

1. GPCA to open dialogue with GCC Authorities / Regulators to lobby for consistent legislation, enforcement and the development of an effective industrial waste management infrastructure.
2. GPCA, with industry support, should consider promoting GCC markets to develop infrastructure for specialized industrial waste management centers and service providers. This can possibly be achieved by holding a seminar / workshop on the subject.

3. GPCA to consider a public relations campaign, in conjunction with member companies, to educate the public on the benefits of recycling and to highlight the programs being implemented by industry.
4. GPCA should broaden their "annual metrics" data collection to obtain a more detailed breakdown of disposed industrial wastes by classification (e.g. hazardous, non-hazardous, incinerated, recycled, e-waste etc.). This will facilitate trending and provide the ability to evaluate the benefits of the individual company plans developed in 6, below.
5. GPCA to consider establishing a guideline for the development of a standardized industrial waste management plan as a resource for member companies. This guideline should reference relevant International programs such as the EU Waste Directive Framework and the UN Sustainable Development Goals (SDG's), specifically SD12, Targets 12.4 (Management of chemicals and associated waste streams throughout their life cycle) and 12.5. (Reduction of industrial waste through prevention, reduction, recycling and reuse).
6. GPCA to consider establishing a "knowledge bank" of information on GCC industrial waste management Best Practices for the use of GPCA member companies.
7. Member companies shall be encouraged to commit to establishing a five-year industrial waste management plan with a view to minimizing their inventory of disposed industrial wastes. The plan should follow the guideline established in 4, above, to provide consistency in approach.
8. It is envisaged that involvement of local regulatory authorities, academia and young undergraduates / graduates involvement can provide a sustainable growth of the plan.

Prepared by Industrial Waste Task Force and reviewed by the Responsible Care Committee (RCC), on behalf of GPCA.