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| **INTEGRATED SYSTEM PROCEDURE**  ENVIRONMENTAL ASPECT ANALYSIS |

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| **Author** | | | |
| Name: Ali Raza Gohar | |  | **Signature** |
| Designation: QHSE Team Lead | |  |
| Date: 30-12-2019 | |  |
| **Review** | | | |
| Name: Muhammad Shaheedullah | |  | **Signature** |
| Designation: Compliance Manager | |  |
| Date: 30-12-2019 | |  |
| **Approval** | | | |
| Name: Ahsan Abid | Designation: GM Unit-1  Date: 30-12-2019 |  | **Signature** |
| Name: Shahid Sultan Butt | Designation: GM Unit-2  Date: 30-12-2019 |  |  |
|  |  |  |
| Name: Waseem Ahmed | Designation: GM PCC  Date: 30-12-2019 |  |  |
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1. **Purpose**

The purpose of this Procedure is to:

1. Provide a System and Instructions to identify the environmental aspects of the Organization’s activities and products and services
2. Assign responsibilities for identification and documentation of identified environmental aspects.
3. **Scope**

This procedure applies to all the environmental aspects and impacts associated with the activities and products of Bin Rasheed Colors & Chemicals & Pakistan Coating Chemicals. For purpose of evaluation activities, services and products with similar characteristics may be grouped.

1. **Responsibility**
2. A Multi-Disciplinary QHSE Team representing various departments in the company and / or consultants hired for the purpose, independently and / or jointly are responsible for the initial identification of environmental aspects, where relevant considering, Emission to Air, Release to Water, Waste Management, Spillage / Land Contamination and Plantation etc.
3. On the ongoing basis, the Compliance team and Departmental Heads are responsible for identifying changes in activities, products, and services that create new environmental aspect, invalidate previously identified aspects taking into account the cost and time of undertaking the analysis and availability of reliable data.
4. **Procedure** 
   1. **Criteria of Environmental Aspects Evaluation**

This Procedure covers the environmental aspects of activities and products that the Bin Rasheed Colors & Chemicals & Pakistan Coating Chemicals can control and over which it can be expected to have an influence. Significant environmental aspects identified through this process are considered in the setting of environmental objectives and targets covering:

1. Legislative and Regulatory Requirements
2. Identification of Significant Environment Aspects
3. Examination of all Existing Processes
4. Evaluation of Feedback from the Investigation of Previous Incident
   1. **Initial Identification of Environmental Aspects**
      1. In the Initial Phase of establishing and implementing the IMS, environmental aspects are identified by a team which includes Representatives of Different Departmental Head(s) in the Company. Compliance team is responsible for establishing and directing the team. If and when necessary external Consultants and experts are included for assistance or an independent assignment.
      2. The team will identify the specific environmental aspects using general aspect categories. **General aspect categories** should be included, but not necessarily limited to the followings:
5. Air Emissions
6. Release to Water (Effluent discharge)
7. Release to Land (Spillage, Land Contamination)
8. Noise
9. Waste (Solid Waste and by-Products)
10. Heat
11. Depletion of Natural Resources
    * 1. Each member of the team investigates and reviews relevant activities, products and services in his department or area of expertise and prepares a list of identified environmental aspects.
      2. Environmental aspects identified by the individual member of the team, are discussed during formal and informal review meetings to determine the significance and that there are no duplications / emissions.
      3. The aspects identified are consolidated into groups and then plotted and shown in the environmental layout of the facility. Aspect log of environmental layout is also maintained by the compliance team.
      4. Once the aspects are identified, the data regarding the aspects (e.g. air emissions, effluents, wastage etc.) is gathered.
      5. The environmental review for reporting will be conducted by representative(s) of implementation team along-with the internal / external experts, so as to ensure that a thorough review is conducted.
      6. Once the review has been completed and a detailed environmental review report is presented, departmental heads, along with the QHSE Team Leadwill identify the aspects having significant environmental impacts.
      7. The team rates the product and activity (or group of same) which have significant impacts measured / categorized in significant environmental aspect log, applying “**RISK FACTOR ANALYSIS**” defined in this procedure.
      8. The stepwise activities carried out in the company for the identification of significant environmental aspects includes:
12. Identify Environmental Aspects
13. Consider if Under Control / Influence
14. Identify related Environmental Impacts
15. Assess if the Impacts are Significant
    * 1. Results of team findings regarding the significance of the aspects are documented. If there is any ambiguity in the results, a member is nominated by the Compliance team to resolve the ambiguity.
      2. The environmental aspects may be considered by the compliance team to be significant, where aspect:
16. Is subject to relevant legislation, regulation and/or other requirements
17. Is subject to high environmental loading due to one or more of the followings:

* Toxicity (composition characteristics of material and waste)
* Amounts (volumes and masses of releases and/or consumption of resources)
* Frequencies of episodes
* Severity of actual or potential impact
  1. **Ongoing Identification of Environmental Aspects**
     1. Changes and development of new activities / products or services may invalidate previously, identified environmental aspect or require the addition of new aspects to the list e.g.

1. Significant expansion or reduction of capacity
2. New material and subcontractors
3. Changes in the surrounding community
4. Changes in laws and regulations
5. Temporary projects, such as construction, installation of new lines or equipment etc.
   * 1. Frequency of on-going environmental aspects identification will be annual.
     2. On an on-going basis, the top management and section heads are responsible for identifying changes in activities, products and services that either create new environmental aspect or invalidate previously identified aspect.
     3. New environmental aspects may also be identified through the review or by the internal or external audits. New environmental aspects and requests to delete obsolete aspects are communicated to the compliance team for review.
     4. Compliance team reviews the proposed aspects for relevance & conformance with the definitions, guidelines, criteria set & authorities for reordering to the new aspects in the environmental aspect log if deems appropriate, or returns or retains the request with reservation seen at their end.
   1. **Aspects Evaluation based on their Significance** 
      1. Various environmental aspects are identified on the basis of their significance to environment.
      2. Where necessary, risk factor analysis is conducted to find out the significance of the aspects identified.
      3. Method for calculating ***RISK FACTOR ANALYSIS*** would be:

***Risk (R) = [Chance of Occurrence (O) + Chance of Detection (D)]\*Severity of Consequences (C)***

**R = (O+D)\*C**

Following table is used to rate the risk factor of any aspect.

| **Criteria** | | **Description** | **Score** |
| --- | --- | --- | --- |
| **Occurrence** | **VERY HIGH** | It is expected to occur at some time in the near future (daily) | **5** |
| **HIGH** | Will probably occur in most circumstances (weekly) | **4** |
| **MODERATE** | Might occur at some time (monthly) | **3** |
| **LOW** | Could occur at some time (six months to a year) | **2** |
| **VERY LOW** | The event may occur only in exceptional circumstances | **1** |
| **NONE** | No environmental impact | **0** |
| **Detection** | **CERTAIN** | Every time an event takes place it is **easily detectable and cannot be ignored or missed. NO question that anyone can miss this** | **0** |
| **VERY HIGH** | Every time an event takes place it is **easily detectable and cannot be ignored or missed.** | **1** |
| **HIGH** | Every time an event takes place it is **detectable with little effort** | **2** |
| **MODERATE** | Chances of detection **are less but can be detectable** | **3** |
| **LOW** | Chances of environmental event detection are **rare** | **4** |
| **VERY LOW** | No chances of **detection unless special arrangements are made** | **5** |
| **Consequences** | **NONE** | No environmental impact | **0** |
| **MINOR** | * + - * + Use of renewable resources         + No compliant received | **2** |
| **LOW** | * + - * + Potential of harm to environment         + Control measure available         + Potential nuisance e.g. aesthetic, odour | **4** |
| **MODERATE** | * + - * + Short term damage to the environment         + Complaints received from interested parties (public / neighbour)         + Govern by EPA, poison or other related regulation / Act. Potential for a single incidence that exceed of environmental related statutory requirement i.e.; EPA | **6** |
| **HIGH** | * + - * + Substantial damage to localized environment         + Required large amount of money to clean up         + Interruption to the operating licence or permit         + Results in minor penalty (compound) by authority         + Repeatedly exceeded environment related statutory or prescribed limit. | **8** |
| **VERY HIGH** | * + - * + Destruction of habitat         + Damage beyond company boundary         + Loss of operating license or permit         + Irreversible damage to the environment         + Results in penalty by authority         + Consistently exceeded the environmental related statutory or prescribed limit. | **10** |

* + 1. The Score scale is used between **0** and **100**, the higher the score; the more significant is the aspect.
    2. Every aspect whose rating is **50** or above may be considered “**Significant**”.
    3. All significant aspects are further classified into three (3) categories that are;

1. **Category 1:** Aspect rating **85 & above** (When the rating of the aspect will be 85 or above this will require that the action be ***Halted*** and compliance team is to be intimated immediately. Action with 85 and above will only be resumed after the formal approval of compliance team & GM after taking the preventive measures, to reduce the risk moderate level).
2. **Category 2:** Aspect rating **70 to 84** (When the rating of aspect will be 70 to 84 this will require ***Immediate Actions (instantly)***, actions includes implementation of monitoring programs or operational control needs to be established by the concerned HOD with intimation to compliance team).
3. **Category 3:** Aspect rating **50 to 69** (When the aspect rating will be 50 to 69 this will require ***Corrective/Preventive Actions (Within 3 working days)*** by the concerned HOD with intimation to compliance team).
   * 1. All aspects with rating below **50** will be consider for **Mitigation** and compliance team is to ensure that at least preventive actions are taken without unnecessary delays. In-case no further preventive action (s) can be taken then the implemented actions are kept maintained.
4. **Associated** **Documented Information**
5. Environmental Aspects Identification Sheet
6. Environmental Aspects Analysis Report

**Amendment History Record**

| **Revision Number** | **DCR Number** | **Section** | **Amended Text** |
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