



<p><b>Standard Operating Instruction – EMS-0100.003</b>  <b>Name: Aspect and Impact Analysis</b></p>	<p><b>Corresponding Requirements:</b>                  ISO Standard: 4.3.1                  EMS Manual: 4.3.1</p>
<p>Prepared By: Beth Eckert, Industrial Chemist</p>	<p>Revision Date: 5/8/01                  Revision #: 3</p>
<p>Approved By: Larry Cummings, Asst. Superintendent of WWTD                  Signature:</p>	<p>Effective Date: 2/1/99</p> <p style="text-align: right;">Page 1 of 1</p>

**1.0 Purpose**

1.1 This procedure is to provide guidance for the development and review of environmental aspects and impacts for the Wastewater Treatment Division and for the determination of significance. This procedure also provides guidance for ranking within the significance list to allow for prioritizing of activities.

**2.0 Associated Equipment**

2.1 None

**3.0 Associated Documents:**

- 3.1 **City of Gastonia EMS Manual:** EMS-0100.000
- 3.2 **Forms:** EMS-0101.003A; EMS-0101.003B; EMS-0101.003C; EMS-0101.003D; EMS-0101.003E
- 3.3 **ISO 14001 Standard:** ANSI/ISO 14001-1996 Environmental management systems – Specifications with guidance for use

**4.0 Procedure**

4.1 During the months of November and December of each year, the EMS Management Team will analyze each of the following areas to perform a comprehensive review of aspects and impacts. Aspect and impact determinations will be performed for any new or revised operation and/or laws and regulations throughout the year upon implementation and/or elimination.

- 4.1.1 Long Creek Wastewater Treatment Plant Operations
- 4.1.2 Crowders Creek Wastewater Treatment Plant Operations
- 4.1.3 Long Creek Laboratory
- 4.1.4 Crowders Creek Laboratory
- 4.1.5 Residuals Management
- 4.1.6 Pretreatment

4.2 Analysis of each aspect will be documented on Form # EMS-0101.003A. Both the severity and frequency of each potential impact should be evaluated (using the table below for guidance) and an “X” placed under the corresponding ranking. The form must be completed in its entirety.

	<b>High</b>	<b>Moderate</b>	<b>Low</b>
<b>Severity</b>	Potentially life threatening or life altering to humans or wildlife, or significant long term effects on the environment.	Danger of non-life threatening health effects to humans or wildlife, or short term effects on the environment.	Little impact to environment and/or no danger to the health of humans or wildlife
<b>Frequency</b>	Average of once a week or more frequent.	Average less than weekly but more often than semiannually	Average semiannually or less frequently

- 4.3 Each EMS-0101.003A form that has an “X” in the high category for either severity or frequency will be analyzed further to determine if the aspect is significant or not.
- 4.4 Further analysis of significance will be done using Form # EMS-0101.003B, the best professional judgement of the supervisor for the respective area and any previously completed aspect and impact analysis forms. Again this form will be completed in its entirety. The following items should be taken into consideration when completing this form: practical control, true risk, probability, and environmental impact data.
- 4.5 Once EMS-0101.003B has been completed, all aspects determined to be significant will then be listed on Form # EMS-0101.003C, one form for each area.
- 4.6 The individual who completed each form will sign and date it.
- 4.7 If the process is for review and there have been no modifications to the form, the supervisor shall indicate on review summary form (EMS-0101.003D) whether any changes to the impact analysis were made or the activity has been deleted or any new activities have been added.
  - 4.7.1 If changes are made to any of the aspects and impacts during a review, form EMS-0101.003A must be completed and, if needed, forms EMS-0101.003B and EMS-0101.003C must also be completed.
  - 4.7.2 The area supervisor must ensure that the EMS Coordinator receives a copy of all completed documentation for filing.
- 4.8 Area supervisors shall have approval authority for each form (EMS-0101.003A, EMS-0101.003B, EMS-0101.003C, and EMS-0101.003D).
- 4.9 The EMS Coordinator will compile a comprehensive list of all significant aspects along with their associated impacts (EMS-0101.003E).

4.9.1 Area supervisors will then review the list provided in EMS-0101.003E and using their best professional judgement determine the order of prioritization for submission to the Superintendent of the WWTD for approval.

4.9.2 The corresponding operational controls, monitoring and measuring procedures, and /or objectives and targets improvement programs shall be identified and listed for easy identification of areas that need to be addressed further.

4.10 If at any time during the year a process or activity is modified, added, or removed the area supervisor must ensure that an aspect and impact analysis is completed, all aspect and impact lists updated appropriately, and if applicable, objectives and targets updated. The area supervisor must ensure that the EMS Coordinator receives a copy of the completed documentation for filing.

4.11 The EMS Coordinator or other appointed personnel must update any forms maintained on the read only drive once notified in writing by the area supervisor and any computer generated forms shall be e-mailed upon completion to the EMS Coordinator for placement on this drive.

4.12 Once the policy and aspects have been reviewed and significance determined, objectives and targets will be developed for the following year and will consider the following information:

4.12.1 Legal and other requirements

4.12.2 Significant environmental aspects and impacts

4.12.3 Prevention of pollution

4.12.4 Technological options

4.12.5 Financial, operational, and business requirements

4.12.6 Gastonia WWTD environmental policy

4.12.7 Views of interested parties

**5.0 Deviations from this procedure must be documented by completing a Corrective/Preventative Action Report (EMS-0101.004).**