

The What, How and Why of Electronic Reporting

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R8PA
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Overview

- What is Electronic Reporting (ER)
- What are some different Levels of ER
- How is CROMERR different
- How is CROMERR certification obtained
- Why would a program pursue CROMERR certification
- Why would a program spend money on ER



What is Electronic Reporting (ER)?

Forms of Electronic reporting include:

- Email
- PDF
- Spreadsheets
- eDMR / NetDMR
- CDX

(Central Data Exchange)

NOT PAPER !



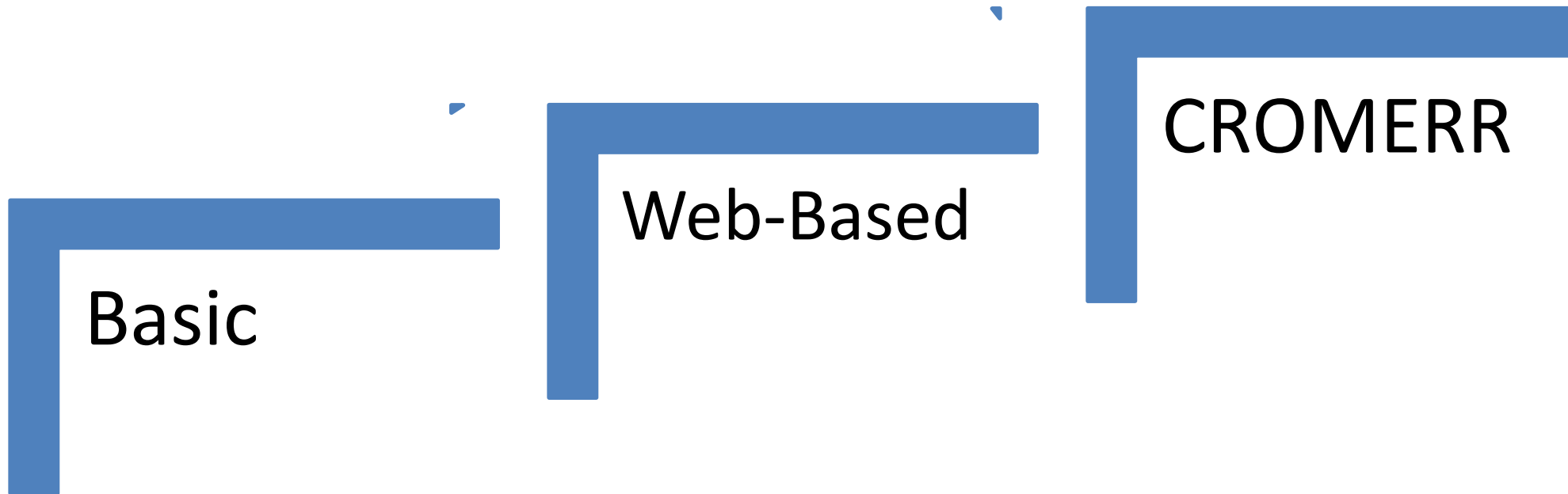
Components of Electronic Reporting

- Data Format
- Transmission Mechanism
- Data Validation
- Copy of Record
- Electronic Signature





Levels of Electronic Reporting





Basic Electronic Reporting

- Manual/Basic
 - Email
 - PDF
 - Spreadsheets



Web-Based Electronic Reporting

- Web-Based Forms
 - Filled in On-Line
 - Needs Website
 - Data is easily imported into Database



CROMERR Compliant Electronic Reporting

- CROMERR Compliant Systems
 - Specifies criteria to ensure data is **legally defensible**
 - Copy of Record
 - Integrity of Electronic Document
 - Review and Repudiate Copy of Record
 - Electronic Signature
 - Requires CROMERR application and System Certification



Cross Media Electronic Reporting Rule **CROMERR**

The Cross-Media Electronic Reporting Regulation (**CROMERR**) provides the legal framework for electronic reporting (ER) under all of the Environmental Protection Agency's (EPA) environmental regulations. CROMERR applies to:

- (a) regulated entities that submit reports and other documents to EPA under Title 40 of the Code of Federal Regulations,
- (b) states, tribes, and local governments that are authorized to administer EPA programs under Title 40. **CROMERR establishes standards for information systems that receive reports and other documents electronically** (including email, but excluding disks, CDs, and other magnetic and optical media) that are submitted to satisfy requirements of a program that a state, tribe, or local government is authorized to administer under Title 40.
- These standards cover a variety of system functions, such as **electronic signature validation**. **The standards are designed to provide electronic submittals with the same level of legal dependability as the corresponding paper submittals**. Although CROMERR does not subject EPA systems to the standards, EPA has decided that all of its systems will conform to the standards when they operate to receive electronic submittals that are covered by the regulation.
- CROMERR also requires that states, tribes, and local governments that wish to continue or begin using ER for their authorized programs must revise or modify those programs to incorporate ER. CROMERR details the process to obtain EPA approval of ER-related revisions or modifications to an authorized program.

<http://www.epa.gov/cromerr/basicinfo/index.html>



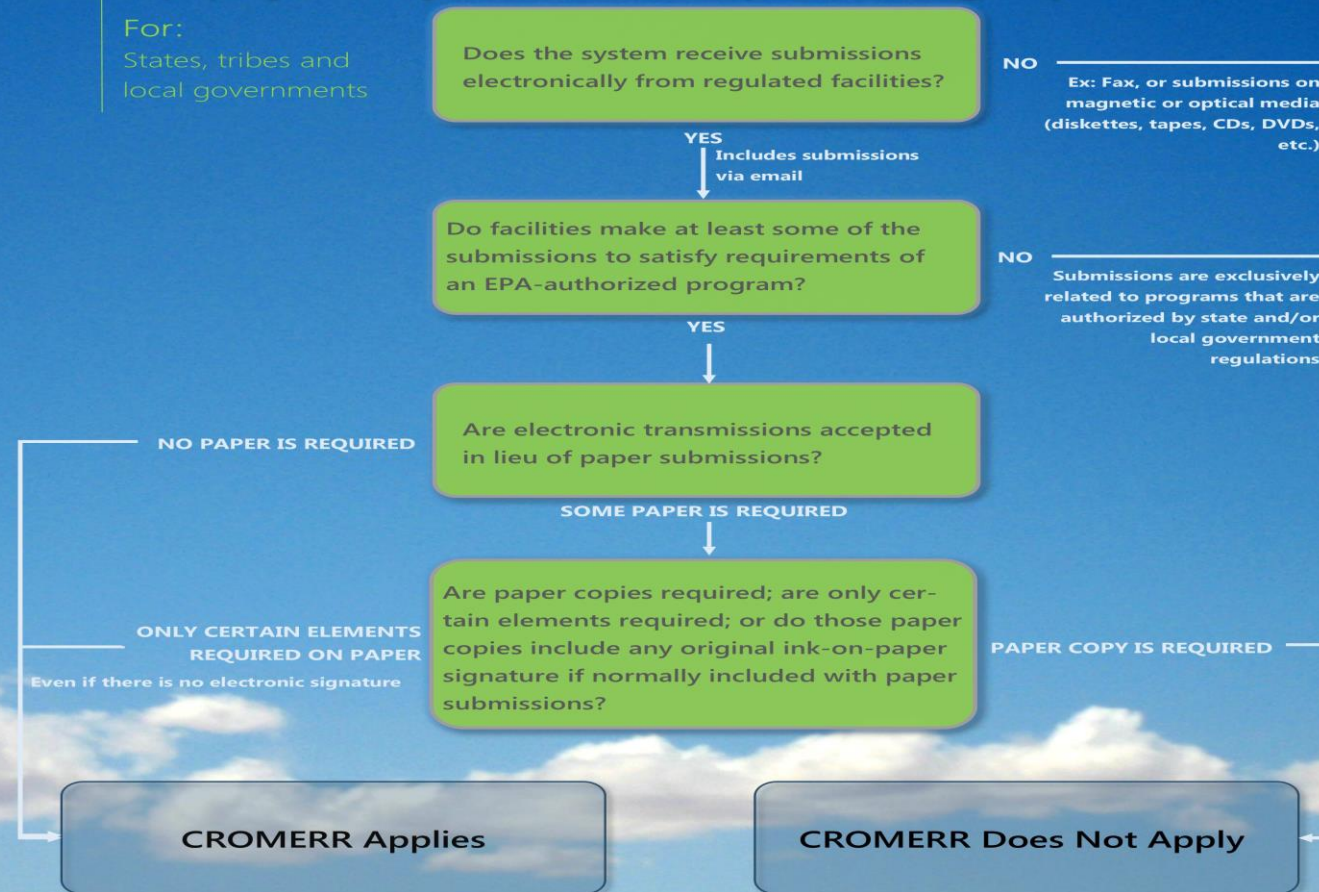
CROMERR Simplified

- Electronic report submitted to regulating agency
- Digitally signed in such a manner as to identify the signer in a legally enforceable manner
- Produces a “Copy of Record” – tamper-proof archive of the report in man-readable format.
- Ability to Repudiate (reject)
- Application to EPA – legal authority, system checklist, publication in the CFR for each POTW



Does CROMERR apply to your e-reporting system?

For:
States, tribes and
local governments



This diagram is provided for guidance purposes only

https://www.epa.gov/sites/production/files/2015-08/documents/does_cromerr_apply.pdf



Which One is not Like the Other?

- A waste hauler emails a spreadsheet containing all of the FOG pump outs they completed for the week
- A Restaurant enters pump out manifest data into a website that is then imported into a database
- An Industry submits Self Monitoring data through a website



NPDES Electronic Reporting Rule

- Effective December 21, 2015
- Phase 1
 - One year after the effective date of the final rule, NPDES regulated entities that are required to submit DMRs (including majors and nonmajors, individually permitted facilities and facilities covered by general permits) must do so electronically.



NPDES Electronic Reporting Rule

- Phase 2

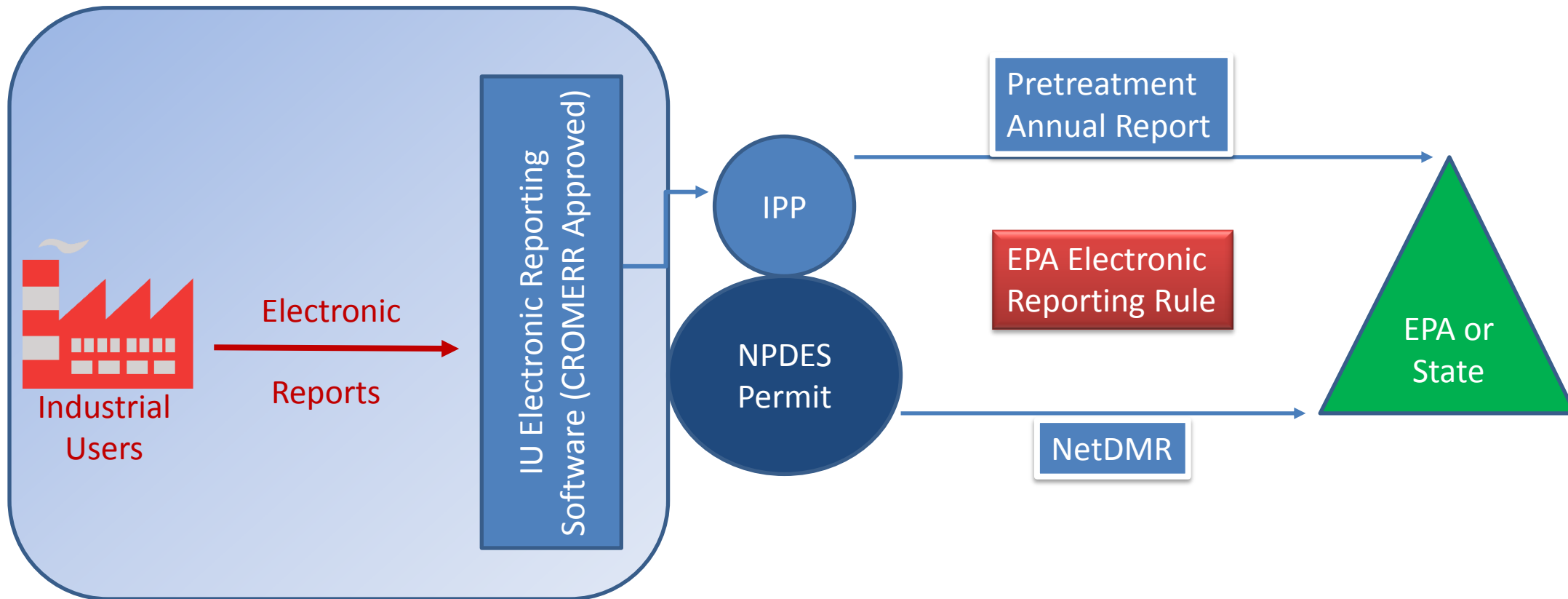
Authorized NPDES programs have five years to begin electronically collecting:

- General permit reports
- Sewage Sludge/Biosolids Annual Program Report
- CAFO Annual Report
- Pretreatment Program Annual Report

(<https://www.regulations.gov/#!documentDetail;D=EPA-HQ-OECA-2009-0274-0521>)



E.R. Rule is only half the Story





CROMERR Application Process

- **Who Files the Application ?**
 - a) EPA
 - b) State DEQ/DEP
 - c) Industrial User (IU)
 - d) POTW IPP
 - e) Linko



Grand Rapids Case Study

- City of Grand Rapids, MI approached Linko about building an EPA-approved Electronic Reporting System to allow Industrial Users to submit reports electronically
- “EPA-approved system = “CROMERR Approved”
- Together, Linko and Grand Rapids submitted the second municipal CROMERR application through the EPA’s approval process



CROMERR Application – The Sections

1. **Application Cover Pages** – Names and a description
2. **System Checklist** – CROMERR-oriented description of design
3. **Legal Authority** – Description of why applicant has authority to allow electronic reporting
4. **Electronic Signature Agreement** – Wet-ink form signatories execute before starting to submit reports electronically
5. **Attachments** – optional documents and drawings that help describe the application for the EPA CROMERR reviewers





LinkoExchange CROMERR Application



1. Application Cover Letter
2. System Checklist
3. Legal Authority
4. Legal Certification
5. Electronic Signature Agreement

*Standard for
all applications*

6. Registration Process Diagram
7. Electronic Signature Diagram
8. Submission Process Diagram
9. System Overview
10. Screen Mockups

*Specific to
LinkoExchange*



1. Cover Pages

CROMERR Application Cover Sheet

Non-Federal: State Environmental Agency Tribe Local Government Agency

Federal: EPA Program Proposal EPA Program Conformance Plan

➤ Contacts at Grand Rapids – Primary, Secondary & Legal Signatory for City

This application requests modification/revision of the following authorized program(s):

<u>40 CFR Part</u>	<u>Authorized Program Title</u>
No modifications or revisions are requested. The following authorized programs currently address authority of the electronic reporting and reports submittal.	
3	Cross-Media Electronic Reporting
403	General Pretreatment Regulations for Existing and New Sources of Pollution
403.8	Pretreatment Program Requirements: Development and Implementation by POTW
403.8(g)	A POTW that chooses to receive electronic documents must satisfy the requirements of 40 CFR part 3—(Electronic reporting).
403.12	Reporting requirements for POTW's and industrial users
403.12(r)	The Control Authority that chooses to receive electronic documents must satisfy the requirements of 40 CFR part 3—(Electronic reporting).

This application addresses/includes (check or complete all that apply):

Priority Reports Non-Priority Reports New Systems Existing Systems

➤ Names of Reports to be Electronically Reported

➤ Brief Description of the LinkoExchange system – “IU Reports to Grand Rapids”

2. System Checklist

1. Identity-proofing of registrant
 - 1a. (priority reports only) Identity-proofing *before* accepting e-signatures
 - 1b. (priority reports only) Identity-proofing method (See 1bi, 1bii, and 1b-alt)
 - 1bi. (priority reports only) Verification by attestation of disinterested individuals
 - 1bii. (priority reports only) Subscriber agreement alternative
 - 1b-alt. (priority reports only) Alternative method that protects it from compromise
2. Detection of tampering
3. Issuance of copy of record
4. Electronic signature
5. Binding of record
6. Opportunity to review
7. Opportunity to correct
8. Transferability
9. Opportunity to dispute
 - 9a. Notice of dispute
 - 9b. Creation of dispute
 - 9c. Process of dispute
10. Production of a copy of record
11. Preservation of record
12. (e-)Accessibility
13. Creation of record
 - 13a. Date of creation
 - 13b. Date of receipt
 - 13c. Date of submission
14. Signature
15. Production of copy of record
16. Production of copy of record
17. Copy of record
18. Creation of record
 - 18a. Transferability
 - 18b. Inclusion of date and time of receipt
 - 18c. Inclusion of date and time of receipt
 - 18d. Inclusion of other information necessary to record meaning of document
19. Timely availability of copy of record as needed
20. Maintenance of copy of record

DESIGN COMPONENTS TO MEET CROMERR REQUIREMENTS

➤ 25 Pages

➤ 36 Sections

➤ 10800 Words

Electronic Signature

Human Readable

COR Creation

COR Integrity

Signatory Validation

Repudiation



3. Legal Authority

Description of Legal Authority to Employ Electronic Reporting

EPA: 40CFR124, Section 402 and Section 304(h)(2)

MI DEQ: Part 31 of Act 451 of 1994, Section 324.3110(3). Part 21, Rule 323.2155(2)

Michigan: Uniform Electronic Transactions Act, Act 305 of 2000 (MCL 450.831-450.849)

Legal Authority to implement a National Pollutant Discharge Elimination System (NPDES) was provided in 1973 in a letter and memorandum from the Environmental Protection Agency to Governor Milliken and the State of Michigan. Michigan was the first State in the Midwest to receive approval of a permit program. Authority was granted under 40CFR124, Section 304(h)(2)

The Department of Environmental Quality was created by Executive Order No. 1995-18, which transferred environmental regulatory programs from the Department of Natural Resources to the newly created Department. Subsequently, the following executive orders transferred additional responsibilities to the Department:

Executive Order No. 1996-1: transferred responsibilities for environmental health programs relating to drinking water and radiological protection from the Department of Public Health to the Department of Environmental Quality.

.... 500 or so words later

Based upon the foregoing statutory and regulatory authorities, either singly or in combination, ***each NPDES permit holder as governed by the EPA and the Michigan DEQ has the authority to implement electronic reporting in conformance with the requirements of 40 CFR § 3.2000.***

4. City Attorney Certification

CITY ATTORNEY CERTIFICATION STATEMENT

I, John Doe, am the City Attorney of the City of Grand Rapids, Michigan. My office has reviewed the Grand Rapids Environmental Services', hereafter referred to the 'City', application and supporting documentation to the United States Environmental Protection Agency for the approval of electronic reporting for the LinkoExchange electronic document receiving system, and I hereby certify:

1. that the City has sufficient legal authority provided by lawfully enacted or promulgated statutes and/or regulations to implement the electronic reporting component of its authorized programs consistent with 40 CFR § 3.2000 and with this application;
2. that such statutes or regulations are in full force and effect on the date of this certification; and
3. that the City has authority to enforce the affected programs using electronic documents collected under these programs. **To assist EPA's review of this application, I have included a description prepared by the City, "A1 - CROMERR Legal Authority"** which specifically links applicable provisions of 40 C.F.R. Part 3 with relevant portions of the Michigan Department of Environmental Quality (DEQ) Statutes and State Laws allowing (sewerage) contracts, districts, authority and enforcement between political subdivisions. The City's local ordinance provides for enforcement of these regulations under the NPDES permit issued by the Michigan DEQ. Authority is provided for by the State through the Michigan DEQ to the City, that is, the NPDES permit holder. Also included with this certification are copies of all Michigan DEQ regulations, State statutes and City Ordinances relevant to this application. These statutes and regulations demonstrate the City's authority to enforce the affected authorized programs using electronic documents.

John Doe
City Attorney, Grand Rapids, MI
September 30, 2012

5. Electronic Signature Agreement

SUBSCRIBER AGREEMENT FOR SUBMITTING DATA ELECTRONICALLY TO THE CITY OF GRAND RAPIDS, MI

In accepting the electronic signature credential issued by the City of Grand Rapids, MI, Environment Services Department, hereafter referred to as the City, to sign electronic reports submitted to the City's LinkoExchange system.

Permit # _____ Permittee _____
Located: _____

I _____ (1) understand and agree to submit self-monitoring data required by the Industrial Wastewater Discharge Permit, referenced above, through electronic format, and I agree that the use of my electronic signature device (Username, PIN, and Challenge Question/Answer) shall serve as a legally enforceable signature in the same manner as an original signature on a paper document pursuant to the provisions of M.C.L. 450.831 et seq. I will be held legally bound, obligated, or responsible for my use of my electronic signature as I would be using my hand-written signature in submitting an electronic document to the LinkoExchange system.

(2) Agree to protect the security of my password and system credentials from compromise and shall take all necessary steps to prevent its loss, disclosure, modification, or unauthorized use.

(3) Agree not to attempt to use or create automated log-in scripts using my electronic signature credentials.

(4) Agree to report to the City within 24 hours of discovery, any evidence of loss, theft or other compromise of my electronic signature.

(5) agree to notify the City if I cease to represent the regulated entity specified above as signatory of that organization's electronic submissions to the LinkoExchange system as soon as this change in relationship occurs and to sign a surrender certification at that time.

Executed by IU
signatory after
they register on
LinkoExchange

Signatory Name: _____ Signature: _____
(print)

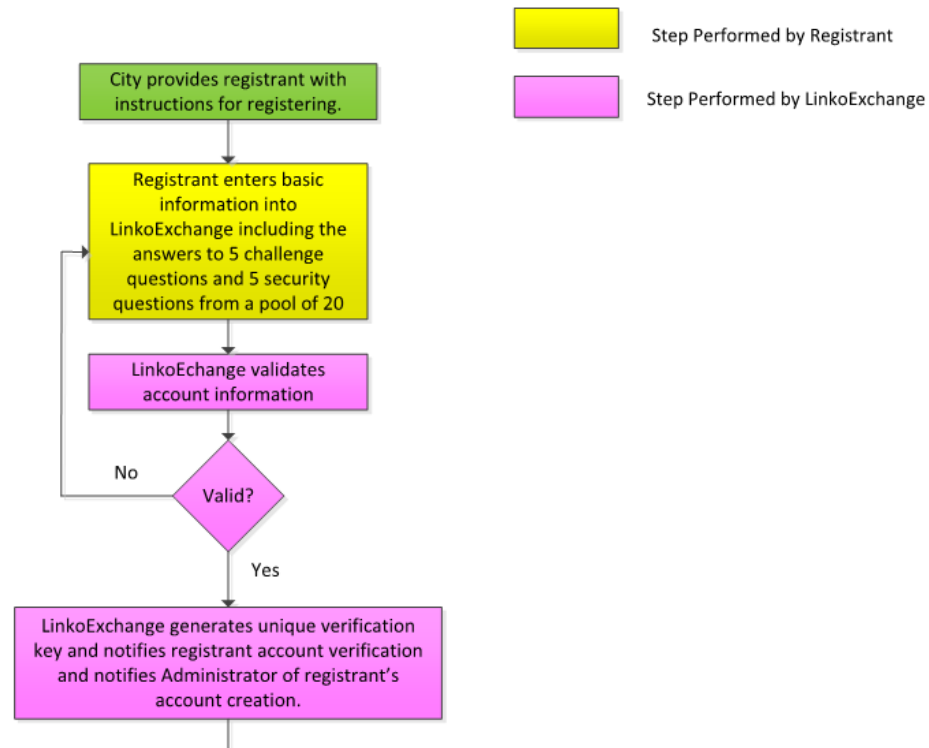
Title: _____ Date: _____

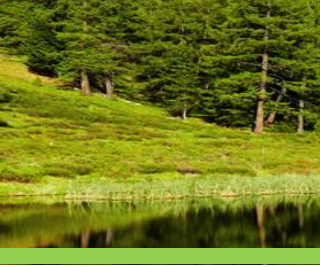


LinkoExchange Specific Attachments

- Flowcharts
 - Illustrating how the design logic works
 - Significantly helped the approval process with the CROMERR office

ATTACHMENT 4 City of Grand Rapids ESD LinkoExchange Electronic Registration Process





CITY OF
GRAND
RAPIDS

MEDIA RELEASE



For Release
February 20, 2014

Contact: Mike Lunn
ESD Manager
City of Grand Rapids
(616) 456-3625

City of Grand Rapids Receives Environmental Protection Agency Approval as First Municipality to Allow Electronic Reporting for Industrial Pretreatment Program Documents

The City of Grand Rapids, working in conjunction with Linko Data Systems, submitted a LinkoExchange System application on October 23, 2012 to the United States Environmental Protection Agency (USEPA), seeking approval to accept Industrial Pretreatment Program documents electronically under the Cross-Media Electronic Reporting Regulation (CROMERR) Title 40 Code of Federal Regulations Part 3. The USEPA published the approval in the Federal Register on February 13, 2014, and is the first approval given to a municipality nationwide. The USEPA indicated that it will use the City of Grand Rapids' application as a template for other municipalities to follow as part of the application process.



Lessons Learned

- Communicate early and often with your Approval Authority and EPA CROMERR office
- Use DRAFT Application ! Get comments from both Approval Authority and CROMERR office before submitting formal application
- Subsequent LinkoExchange template applications will provide faster approvals



CROMERR Resources

<http://www2.epa.gov/cromerr>

Karen Seeh, EPA Office of Environmental Information
(202) 566-1175



Electronic IU Reporting Rationale

- Fits the City goal of being progressive
- Leverage electronic reporting to free up staff
- Eliminate cost of handling paper reports
- IUs want to report electronically
- Faster IU detection of Non-Compliance
- Extend their use of Linko data management



Costs of Electronic Reporting

- Computers and Software
- Training
- Support and Maintenance





Advantages/Rationale of Electronic Reporting

- Greater visibility and organization of Data
- Data Trending instead of Data Entry
- Eliminates Data Entry
- Paperless
- Faster
- *Better Decisions*



Do the Advantages outweigh the Costs?



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