

Business Processes & Rules¹ Relevant to a Multi-State Chemical-Use Reporting Database (“HPC Data System”)

Categories of actions to help guide or structure discussion of workflow or business rules:

Process description [Occurs inside or outside the system]

1. An entity (“Company”) potentially subject to reporting determines whether it must report to one or more states [Out]

As states amend lists (as reportable fields change), it’s helpful for IC2 to reconcile that, to facilitate pushing this new information (new reqs) up supply chains. Use contact info for company contacts (users) in the system to distribute notifications re program changes (update program documents).

For example, notifying reporters when a second CASRN is added for an existing CHCC.

News/updates section or page on the reporting database.

Possible feature: allow each participating state agency to use the system to send updates (e.g., via email) to system users.

[How does IMERC handle this?]

Site could include decision flow-diagram for each state.

¹ See the appendix for definitions of “business rules”.

- 1.1. Review of published state program guidance [Out]
 - 1.1.1. Consideration of accessible vs. inaccessible components [Out]
- 1.2. Phone or email consultation with state agency or IC2 staff [Out]

2. Account Creation [In]

- 2.1. A designated representative of Company (“Person”) registers (creates an account) in the IC2 reporting system [In]
 - 2.1.1. Person creates organization record (account) [In]
 - 2.1.1.1. *Every organization record must have at least one associated user record. Therefore, new organization account information is stored in a separate (staging or temporary) table until the associated user account has been created and confirmed [In]*
 - 2.1.2. Person creates a user record (account) [In]
 - 2.1.2.1. *From Bike Rack: Is your organization already registered? The user must then enter the org’s PIN in order to associate him/herself with his/her org (already in the database)*
 - 2.1.2.2. *User account information stored in a separate (staging or temporary) table until the user’s email address has been confirmed [In]*
 - 2.1.2.3. *User account is not yet active and does not have permissions needed to carry out other system tasks such as creating other users or creating reports [In]*
 - 2.1.2.4. *System emails confirmation link to the user’s email address [In]*
 - 2.1.2.5. *User clicks link in confirmation email message [Out]*
 - 2.1.2.6. *System copies user account information to user table and deletes the record from the staging/temporary table [In]*
 - 2.1.2.7. *If the user does not confirm his/her email address within seven (7) days of creation, the system deletes the user (and associated organization) account information from the staging/temporary tables [In].*
 - 2.1.3. Person (primary user) creates (and manages) additional user records [In]
 - 2.1.4. Or does the system generate a PIN or temporary code that any person can use to create a user account associated with an organization? (In and Out)
 - 2.1.5. Person designates person to whom data questions should be addressed [In]
 - 2.1.6. Person designates person to whom payment questions should be addressed [In]

3. Company designates one or more entities to report on its behalf [In]

- 3.1. *From Bike Rack: How can a supplier report on behalf of a responsible reporter when they are required to submit fee payment for the report to enter the database? Responsible reporter is presumably also responsible for fee payment – not the supplier*

- 3.2. Company asks one of its suppliers (“Supplier”) to create an account in the system [Out]
- 3.3. Company looks up Supplier in the system and gives Supplier permission to report on its behalf [Should granting this permission limit permission to specific products?] [In]

4. Report Creation [In]

- 4.1. Company A creates a report for itself [In]
 - 4.1.1. Products identified by brick vs. brand and model [In]
 - 4.1.2. From Bike Rack: Number of units sold (by state or nationally)
 - 4.1.3. Different state reference values (e.g., CHCCs, PQLs, bricks)
 - 4.1.4. From Bike Rack: Maximum concentration of the chemical – range or precise or both?
 - 4.1.5. From Bike Rack: Guidance or business rule or simple dropdown? More than one CAS (e.g., HBCD – WA uses 2 CASs – do other states?)
 - 4.1.6. From Bike Rack: Where PQLs are different
 - 4.1.7. From Bike Rack: Define “post-production byproducts” (VT). Example: formaldehyde releasers may or may not be reportable; it is not a “byproduct” so much as an intentional presence – should its intended typical concentration be reported?
 - 4.1.8. From Bike Rack: Laboratory information: how submitted? [What’s the context? Reporting measured concentrations of CHCCs, claiming exemption from a reporting requirement, etc.?)
 - 4.1.9. From Bike Rack: Explanation of process upset leading to contaminant – one-time report so chemical is no longer present
 - 4.1.10. Company downloads XML/JSON/etc. data template [In]
 - 4.1.11. Company uploads bulk data [In]
 - 4.1.12. Company asserts one or more chemical identities as CBI [In]
 - 4.1.13. Company asserts one or more supplier relationships as CBI [In]
 - 4.1.14. Need to explore issues around state vs. IC2 possession of CBI data (e.g., once a state has downloaded it)
 - 4.1.15. From Bike Rack: Supplier relationship confidential or no?
 - 4.1.16. Other CBI – identify elements requested (can any never be CBI?) – how full requests are submitted (inside?) and reviewed (outside the system?)
 - 4.1.17. From Bike Rack: For products NOT sold in Oregon, reporters may opt out of reporting on inaccessible components
 - 4.1.18. Company sends relevant states information to substantiate CBI claim (Out? Or upload within?)
- 4.2. Company A creates a report for Company B [In]
 - 4.2.1. Company A (user) selects entity to which the report pertains [In]

- 4.2.2. As described in “Company creates a report for itself” above
 - 4.2.3. [From Bike Rack: Responsible reporter notified when supplier completes a report?](#)
 - 4.2.4. Company B logs in to review Company A’s report (Is all data visible?) [In]
 - 4.2.5. Company B communicates Company A regarding the (unsubmitted) report [Out]
 - 4.2.6. Company B pays reporting fee (or can it be rolled into Company B’s comprehensive report in process?) [In]
 - 4.3. Company saves draft report prior to submission [In]
 - 4.4. Company edits draft report prior to submission [In]
5. Reporting Fees [In]
- 5.1. Company pays reporting fees (Should this be part of the report submission process?)
 - 5.1.1. IC2 fee [In]
 - 5.1.2. State-by-state fees (In?)
 - 5.1.3. System generates fee statement(s) [In]
6. Report Submission [In]
- 6.1. Company submits report [In]
7. Report Maintenance and Editing(?) [In]
- 7.1. Company edits and resubmits revised report at a later date [In]
 - 7.2. [From Bike Rack: Are revisions allowed? If yes, do they overwrite the original report, or are they saved as new records?](#)
 - 7.3. Company submits notification (in the current or a subsequent reporting period) that previously-reported product no longer contains CHCC [In]
 - 7.3.1. What happens to the report data for the affected products/CHCCs?
 - 7.3.2. Different state policies regarding disposition of such data?
 - 7.3.3. Who owns the data in the database? (Reporters, states, IC2, ...?)
8. Agency Review of Submitted Reports [In]
- 8.1. State staff reviews submitted data [In]
 - [From Bike Rack: Review of submissions by individual agencies?](#)
 - Review of CBI claims (To what end? What action could states take?) [Out]
 - Approve submitted data and make it visible to the public (state-by-state vs. all at once, etc.) [In]
 - 8.2. State/IC2 staff view submitted and approved data [In]
 - 8.2.1. Filter or search submitted data [In]
 - 8.2.2. Export/download data [In]
 - 8.2.3. Import data into a separate state database—e.g., through an API (Out?)

9. Public Access to Reported Data [In]

10. System Administration [In]

- 10.1. IC2 staff administration of data system [In]
 - 10.1.1. Create, delete, merge state agency user accounts [In]
 - 10.1.2. Delete or merge company user accounts [In]
 - 10.1.3. Reset user passwords
 - 10.1.4. Update/modify database reference values (state CHCC lists, product categories, etc.) [In]
 - 10.1.4.1. System admin (IC2, presumably) needs to be able to add/edit/delete the bricks in the database.
 - 10.1.4.2. System admin (IC2, presumably) needs to be able to add/edit/delete reportable chemicals.
 - 10.1.4.3. What about adding new states? (That may be a bigger job that requires developer assistance.)

Bike Rack

Organization reporting role—who can report for whom?

Dropdown names of the organizations for which the user or user's organization is authorized to report

Possibility of expanding database in the future to include product testing data as well as manufacturer-reported data

Appendix: What do we mean by “business rules”?

“A business rule is, at the most basic level, a specific directive that constrains or defines a business activity.”

<https://www.techopedia.com/definition/28018/business-rule>

“A business rule is a statement that defines or constrains some aspect of the business. It is intended to assert business structure or to control or influence the behavior of the business. The business rules that concern the project are atomic -- that is, they cannot be broken down further.”

http://www.businessrulesgroup.org/first_paper/br01c1.htm

“In the context of requirements management using use cases the business rules are the constraints related to your use case steps or your business process actions...”

Examples:

Limitations: Only two pieces of luggage per passenger is allowed

Validation: Transferring account is not possible if the account is created after 1/1/1980

Permissions: Account details must be visible for Gold members only

Evaluation: If the order sum is higher than €4000 the customer is granted a4% discount

Process: If the door lock has been activated the “Occupied” sign must be switched on

<http://www.allaboutrequirements.com/2011/12/business-rule-definition.html>