

# Facility Submittal Data Validation in CERS2

Prepared by Cal/EPA Unified Program February 2011

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CERS2 will include application of several types of data/submittal validations that will greatly improve upon what is currently offered in CERS1. These changes will assist reporters in improving the quality and completeness of their submittals to regulators, as well as help regulators focus their submittal reviews on key business issues.

This document summarizes the types of data validations planned for CERS2. For each validation type, the document summarizes the validation and describes how it will appear in the CERS2 user interface (UI) and be implemented in CERS2 electronic data transfer (EDT).

## Type 1: Form Field Validation

<b>Applied To</b>	A single field on a single form
<b>Based On</b>	Field descriptions in the Unified Program (Title 27) Data Dictionary
<b>Description</b>	Data provided by a user in any particular field on a specific form will be validated that it matches the data type, format, and/or code values specified in the Unified Program Data Dictionary.
<b>UI Consequence</b>	The CERS2 UI will display a warning(s) to the user for a field(s) containing an invalid value(s). The user will not be able to save (or submit) the form until the field value(s) is corrected/valid. Generally the user interface will ensure that for a given field a user can only enter the appropriate data type (e.g., numeric, data, alphanumeric), the valid code values (i.e., the field can only contain the values 01, 02, 03, or 99), and/or exceed the maximum lengths of an alphanumeric field.
<b>EDT Consequence</b>	The submittal element will be rejected if any field on any form does not meet the field's definition in Unified Program Data Dictionary and relevant XML schema document (XSD). Regulators implementing their own web portals should ensure their UI implements all the form field validations described in the Unified Program Data Dictionary and relevant XSDs.

## Type 2: Minimally-Required Form Field Validation

<b>Applies To</b>	Multiple fields on a single form
<b>Based On</b>	Approved lists of Unified Program Data Dictionary fields on UPCFs adopted by the CERS Regulator User Group
<b>Description</b>	<p>Based upon feedback from the CERS Regulator User Group, a set of "minimally-required" fields will be implemented for each UPCF in CERS2. This set of fields (typically 3-12 fields per form) will represent the absolute minimum set of fields that any UPA statewide would require a business to report on a specific UPCF. A business will NOT be able to submit the form until <b>at least</b> these minimally-required fields are provided. A regulator may reject the submittal if other important but not minimally-required form fields are incomplete.</p> <p>At the Feb.15 CERS Regulator User Group meeting, minimally-required fields were adopted for the Business Activities, Owner/Operator, and Chemical Description UPCFs (see</p>

	appendix). Future meetings of this group will review and adopt minimally-required fields for other UPCFs.
<b>UI Consequence</b>	A warning(s) will be displayed to the user for any minimally-required field(s) without data. The user will be able to save a partially completed form missing minimally-required field data, and can then resume completion of the form at a later date. However, a form with missing minimally-required field data will stop the user from submitting the program element to their regulator until the minimum-required field(s) is populated.
<b>EDT Consequence</b>	Submittal elements missing data from any minimally-required fields for any UPCF will be rejected. Regulators implementing their own web portals should ensure their UIs make all minimally-required fields mandatory.

### Type 3: Dependent Form Field Validation

<b>Applies To</b>	Two or more dependent fields on a single form
<b>Based On</b>	Instructions on reverse of each UPCF; linkages identified in the Unified Program Data Dictionary field descriptions; suggestions from CERS User Groups
<b>Description</b>	Some fields on a UPCF are linked to other fields on the same form such that data entered in one field will require data to be entered in another field. A common example in the Unified Program Data Dictionary is a field describing a list of options that also includes an "Other" option which is then further described in a separate description field.
<b>UI Consequence</b>	The CERS user interface will disable/enable form elements and/or emit a warning(s) when dependent fields require data entry. Cal/EPA Unified Program staff anticipate the initial versions of CERS2 will implement very few of these interdependencies to allow time for the system and EDT processes to settle.
<b>EDT Consequence</b>	While many of form field dependencies are fairly obvious in a detailed review of the Unified Program Data Dictionary, Cal/EPA is not yet clear if these types of validations should be implemented in EDT, and if so, what would be the best way to catalog/explain them.

### Type 4: Program Element Business Rules

<b>Applies To</b>	One or more forms/documents for a program element
<b>Based On</b>	Statutory/regulatory mandates; instructions on reverse of UPCFs; policy letters/memos from state regulators. "Required" rules only implemented on approval of appropriate state agency.
<b>Description</b>	In many cases the completion of one form (or selection of a specific field value on that form) may trigger a need for the user to provide an additional form(s)/document(s) for the program element. Prior to submitting a program element(s) to their regulator, a business will be provided with one or more advisories based on a program element's business rules, suggesting the need to complete or upload new forms/documents (or review/confirm previously submitted forms/documents). When regulators are reviewing submitted program elements, they will be able to view any advisory(s) the business did not resolve in

	<p>their submittal, along with an explanation the business can optionally provide describing why they believe the advisory(s) did not apply to them.</p> <p>Cal/EPA anticipates CERS2 will provide 3 categories of program element business rules:</p> <ul style="list-style-type: none"> <li>• <b>Required:</b> A form/document is <i>required</i>, and if missing, will prevent a user from submitting the program element.</li> <li>• <b>Warning:</b> A form/document is <i>strongly recommended</i>, but a user can still submit the program element without this form/document.</li> <li>• <b>Advisory:</b> A form/document <i>might be applicable</i>, but a user can still submit the program element without this form/document.</li> </ul> <p>Cal/EPA anticipates applying an absolute minimum of “Required” program element business rules to avoid problems and confusion during the initiation of CERS2. Any “Required” rules will need to be approved in writing by the appropriate state agency that oversees that program element.</p>
<b>UI Consequence</b>	<p>When business users save a UPCF form, the user interface will present them with advisory for any additional form(s)/document(s) they should consider completing (or review/confirmation of a previously submitted form(s)/document(s)). A more comprehensive list of all program element advisories will be presented to users before they attempt to submit a program element(s) to their regulator, along with a text area where they can opt to comment on why they believe the warning(s) or advisory(s) does not apply to them. If a program element has one or more “required” program element business rules, the user will be unable to submit the program element until they provide the necessary form(s)/document(s) described in the rule. All rules will be displayed with color-coded icons to help show the relative severity of the rule (Required=red, Warning=orange, Advisory=yellow).</p>
<b>EDT Consequence</b>	<p>Submittal elements that do not meet one or more “Required” business rules will be rejected. EDT services will return detailed information on business rule advisories for all program element submittals. Regulators implementing their own web portals should ensure they implement any business rules adopted by state agencies. Information on such adoptions will be distributed though both the CERS Regulator User Group and EDT Implementation listservs.</p>

## Appendix

The following Unified Program Data Dictionary fields were adopted as minimally-required fields by the CERS Regulator User Group in February 2011.

**Business Activities UPCF:** Fields 3, 4, 5, 9, 103, 105

**Business Owner/Operator UPCF:** All fields on the form (including the new billing fields 140-147) except fields 100, 101, 102a, 106, 107, 107a, 127, 128, 129, 130, 131, 132, 133, 134, 135.

**Hazardous Materials Inventory UPCF:** Fields 3, 207, 214, 218, 221, 223