Concur Expense: Audit Rules (Validation Rules)

Setup Guide

Last Revised: May 10, 2022

Applies to these SAP Concur solutions:

- ☒ Expense
  - ☒ Professional/Premium edition
  - ☐ Standard edition
- ☐ Travel
  - ☐ Professional/Premium edition
  - ☐ Standard edition
- ☐ Invoice
  - ☐ Professional/Premium edition
  - ☐ Standard edition
- ☐ Request
  - ☐ Professional/Premium edition
  - ☐ Standard edition

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Revision History

Date	Notes / Comments / Changes
May 10, 2022	Added Special Considerations section outlining sequence of validation rules
January 21, 2022	Updated the copyright year; no other changes; cover date not updated
January 6, 2021	Updated the copyright; no other changes; cover date not updated
October 7, 2020	Added a note to the *Events (Triggers)* section.
April 9, 2020	Renamed the Authorization Request check box to Request on the guide's title page; cover date not updated
January 2, 2020	Updated the copyright; no other changes; cover date not updated
June 8, 2019	Added information about using the **Or** function with parentheses to the *Validation Conditional Expressions* section.
January 2, 2018	Added the following clarification note to the *Triggers (Events)* section: "Cost Object Approval processing occurs BEFORE validation rules are executed, so cost objects that are updated by approver actions via validation rules will not reset the cost object workflow."
July 19, 2018	Added information to clarify the use of Calculation Formulas; you can only have one condition set up – per validation rule field – for the Calculation Formula action to perform successfully.
April 4 2018	Changed the check boxes on the front cover; no other changes; cover date not updated
February 16 2018	Updated guide name in reference to the *Shared: Attendee Import, Version 2 Specification* guide.
January 3 2018	Updated the copyright; no other changes; cover date not updated
December 15 2017	Added a caution to *not* update any connected list fields via validation rules.
September 19 2017	Added a note about the exception Message text to clarify that this is a text field and does not support HTML formatting.
December 14 2016	Changed copyright and cover; no other content changes.
January 24 2016	Changed references to the import/extract guides; no other changes
May 15 2015	Removed references to the current UI; no other content changes
September 24 2014	Added information about two user interfaces; no other content changes.
September 15 2014	Clarified - You can only have one validation rule set up – ***per entity*** – to provide these values to the calculation engine.
April 15 2014	Changed copyright and cover; no other content changes
September 20 2013	A new Site Setting, *Enable Validation Rules*, removes the **Validation** tab from the Audit Rules tool (it does not remove existing functionality however – it only suppresses display of the tab itself).
December 28 2012	Made rebranding and/or copyright changes; no content changes.
January 2012	Changed copyright; no content changes.

Date	Notes / Comments / Changes
September 23 2011	Added information about Calculation Formulas.
May 20 2011	Update document for new user interface appearance.
December 31 2010	Updated the copyright and made rebranding changes; no content changes.
June 18 2010	Added information about list item lookup.
December 2009	Changed to stand-alone setup guide for Validation Rules; no content change.

Audit Rules (Validation Rules)

Section 1: Permissions

You may or may not have the correct permissions to use this feature. You may have limited permissions, for example, you can affect only certain groups and/or use only certain options (*view* but not *create* or *edit*). The Expense Configuration Administrator (Restricted) permission grants access to this feature. Other user roles may have access to this feature as well.

If you need to use this feature and do not have the proper permissions, contact your Concur administrator.

Also, be aware that some of the tasks described in this guide can be completed only by Concur. In this case, your company must initiate a service request with Concur Client Support.

Section 2: Overview

Validation Rules are used to compare values in expense report fields to a table of predefined values, imported by the client. The comparison can be configured to take place on entry save and submit, allocation save, and report save, submit, or post submission. If the comparison uncovers a mismatch, the validation rule can throw an exception, update the report field (except on allocation save), or both.

Refer to the *Expense: Audit Rules Setup Guide* and the *Shared: Validation Table Import Specification* for more information.

Activation of Validation Rules Module and Site Setting Option Required

A Service Request must be submitted to Concur to enable the Validation Rules module of Audit Rules. The process involves enabling the OID Import job.

In addition, the *Enable Validation Rules* setting must be enabled in order for the tab to appear. Conversely, you may elect to suppress this tab using this same functionality (**Administration** > **Expense** > **Site Settings**).

General Concepts

Visibility

When creating or editing a validation rule that uses the Generate Exception action, the administrator defines who sees the exception text:

- **Traveler** (user)**, Approver, and Expense Processor:** The user, Approver, and Expense Processor see the exception text.

- **Approver and Expense Processor:** The user does not see the exception text and, hence, does not know the report will be audited.
- **Expense Processor:** The user and Approver do not see the exception text and, hence, do not know the report will be audited.

The exception text appears along with:

- A yellow flag if the exception does not prevent submission of the expense report
- A red flag if the exception prevents submission of the expense report
- A gray flag if the Expense Processor has cleared the exception

Exceptions

When creating or editing a validation rule that uses the Generate Exception action, the administrator can choose to assign an exception. All exceptions contain the following:

- **Exception code:** This is the company-defined code for the exception, up to eight alphanumeric characters, all uppercase.
- **Exception level:** The company decides how many exception levels (up to 99) to use. For example, assume the company decides to have six exception levels, with level 1 being a minor exception and level 6 being a severe exception. The company also decides the point at which the severity of the exception prevents the user from submitting the expense report (via Expense Configuration Administrator > Workflows > Settings). For example, assume the system does not allow the user to submit an expense report if it contains a level 6 exception.
- **Exception text:** This is the actual message that appears, such as "The project code selected is not a valid project code."

Events (Triggers)

When creating or editing a validation rule, the administrator specifies the event that triggers the rule, for example:

- **Allocation Save:** This rule is triggered as each individual allocation "line item" is saved.
- **Entry** (Expense) **Save:** The rule is triggered when an expense is saved, whether by the user, approver, or processor.

NOTE: Tax calculations occur *before* Validation rules in the Save process. Validation rules should not be used to set field values that drive tax calculations.

- **Entry** (Expense) **Submit:** The rule is triggered when the expense is submitted.

NOTE: Entry Submit rules are processed before Report Submit rules.

- **Post Report Submit:** The rule is triggered immediately after a report enters the first step of workflow. Any exceptions generated will not prevent the report from being submitted.
- **Report Save:** The rule is triggered immediately after the report header information is saved whether by the employee, approver, or processor.
- **Report Submit:** The rule is triggered when the report is submitted. If there are exceptions generated that are above the exception level limit (that is, prevents report submission; described in *Exceptions* in this guide), then the report will not be submitted and will not enter the first step of a workflow.

NOTE: Cost Object Approval processing occurs BEFORE validation rules are executed, so cost objects that are updated by approver actions via validation rules will not reset the cost object workflow.

Execution Basis

When creating a validation rule, the administrator chooses whether the rule executes when the condition listed is True or False. Each set of validation conditions will always evaluate to True or False.

Special Considerations – Order of Execution

It is important to understand when a validation rule is executed during some operations, in order to avoid unintended outcomes.

Calculation formulas: Calculation formulas execute *before* any other validation rules or audit rules during the expense entry Save process.

Copy down: Validation rules generally execute *after* copy down during the Save operation, therefore it is not recommended to use validation rules to change the value of a field that is copied down to lower-level records.

Cost object approval workflows: Cost Object Approval processing occurs *before* validation rules are executed, so cost objects that are updated by approver actions via validation rules will not reset the cost object workflow.

Tax calculations: Tax calculations occur *before* Validation rules in the expense entry Save process. Validation rules should not be used to set field values that drive tax calculations.

Summary – The Basic Process of Creating Validation Rules

When creating the validation rule, the administrator:

1. Names the rule
2. Identifies the event that triggers the rule
3. Identifies the administrator (group) that can edit the rule

4. Identifies the group to which the rule applies and whether or not the rule is inherited to the groups below it in the group's hierarchical structure

5. Chooses whether the rule should act when the condition is True or False

6. Defines the conditions using the Validation Rules condition editor

7. Defines the Validation action:
   - Exception only
   - Field update only
   - Field update, then exception
   - Calculation Formula

   Refer to the *Calculation Formulas* section of this guide for more information.

8. For **Field Update**: Chooses which fields to move data between

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⚠ **IMPORTANT:** Neither *Field update*, nor *Field update, then exception* actions may be used to update connected list fields. Values set by validation rules will not be checked to ensure that they are legitimate choices within the list, therefore invalid field values may be set accidentally. DO NOT update any connected list fields via validation rules.

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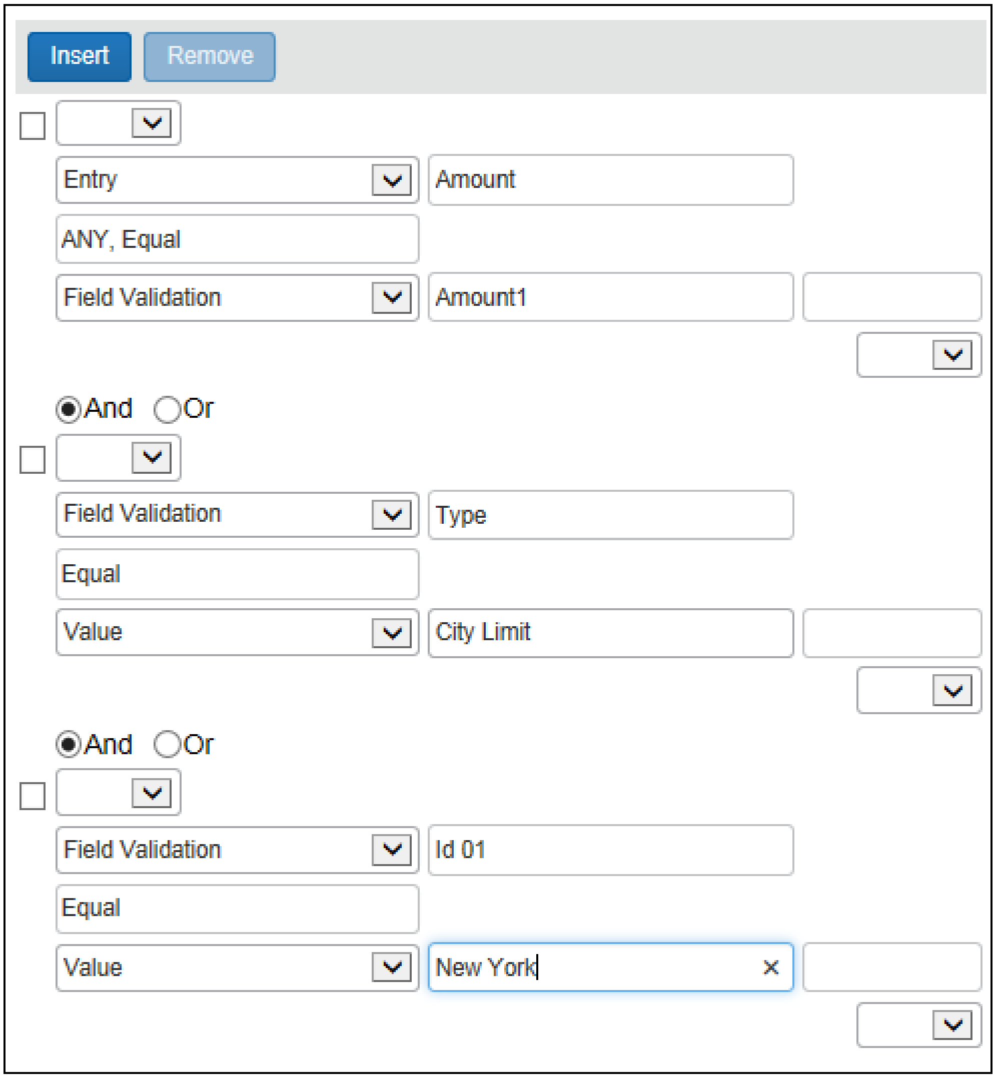
9. For **Exception**: Defines who sees the exception text, and selects or creates the appropriate exception

Validation Conditional Expressions

NOTE: Basic information about conditional expressions can be found in the *Concur Expense: Audit Rules Setup Guide*. This section in this guide contains the Validation Rules variations.

Conditional expressions in Validation Rules are similar to creating database queries. Each condition using the Field Validation data object narrows down the list of potential matches. In order to match a report/entry field with a field in the validation table, it is necessary to use multiple conditions to specify the correct validation table row. For example, this condition:



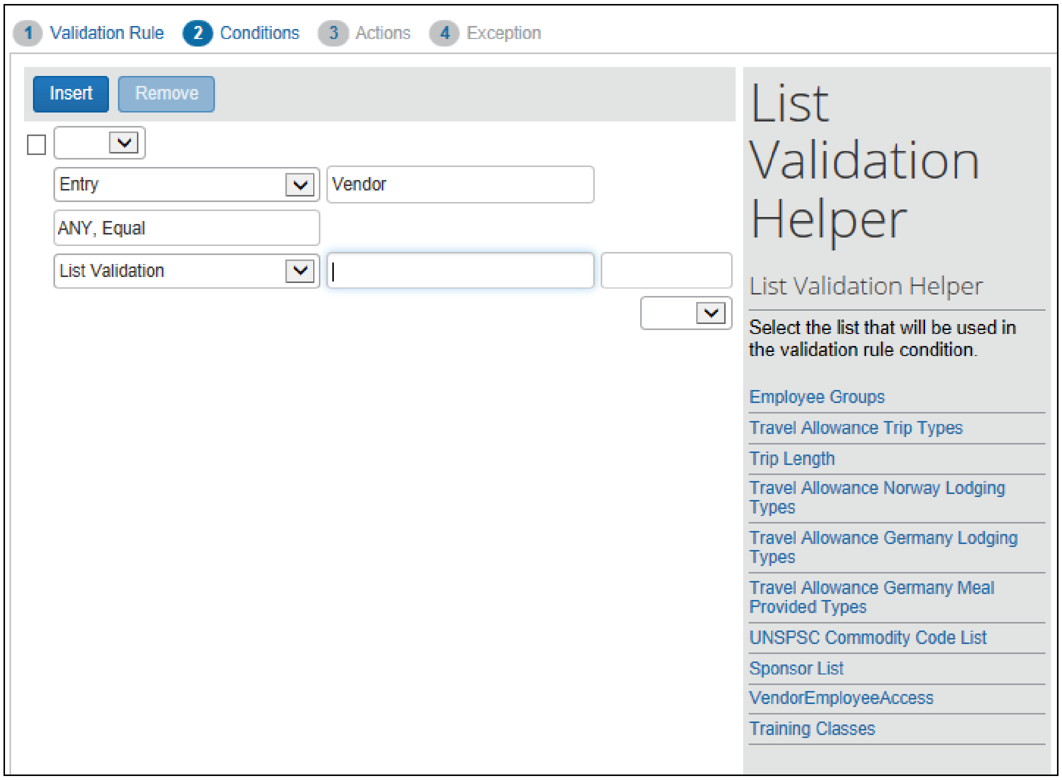
Will evaluate as:

The entry amount equals the validation table Amount1 (where the validation table row contains Type = CityLimit and Id_01 = New York)

When creating or editing conditional expressions, the administrator should consider the following.

- The Field Validation data object must be selected in order to use fields in the validation table for comparison.
- The List Validation data object is used to compare report/entry fields to a simple configured list.
- The **Type** field in the validation table allows the client to reuse columns for different data.
- The **Type** and **Id 01** fields must be included when using the Field Validation data object.

- The only operator that can be used against the Id columns and the Type column is the equal operator. This is the same for the List Validation object.
- When using the Field Validation object the Id fields must all be used in numeric order 1 through n. For example, if you use Id 5 you must use Id 1 through Id 4 first.
- The List Validation object can only be on the right-hand side of the expression.
- When looking up list values, the list item short code is used:
  - When copying from one list to another, the source list short code for the current value is used to look up the short code in the target list.
  - When copying from a text field, the text field value is compared to the short code value.
  - When copying from a constant value that value is compared to the short code value.
- When using the Entry City field in validations, the location code for the city is used. You must import the location codes into the validation table to validate the city values.
- When using the Entry State/Province field in validations, the country sub code for the state/province is used. You must import the codes into the validation table to validate the State/Province values. Validation conditions using this field must have the validation on the left side of the condition, and the State/Province field on the right side: Field_validation.ID_1 = Entry.State/Province.
- When using the Entry Country field in validations, the country code for the country is used. You must import the location country codes into the validation table to validate the country values.
- When the List Validation object is selected, the List Validation helper pane will appear on the right side of the page, displaying the configured simple lists.

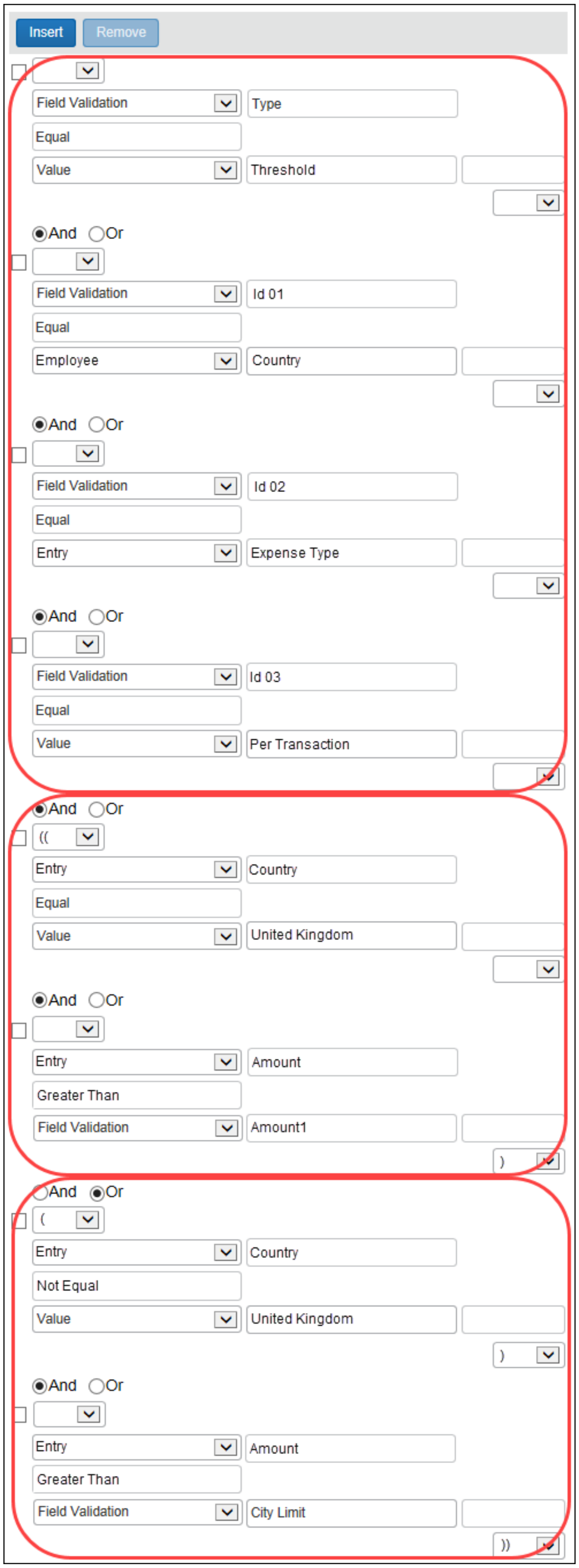


USING OR

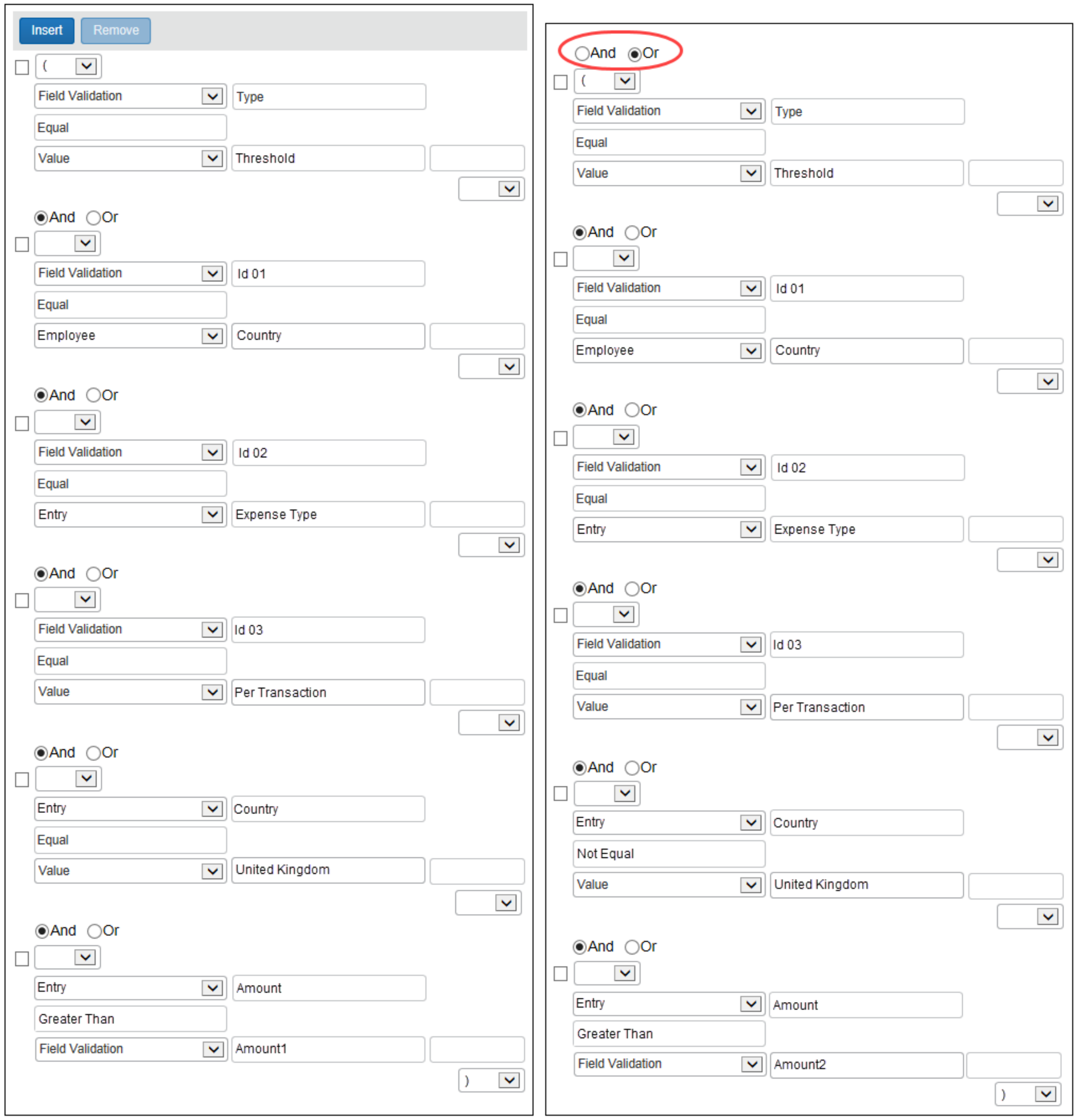
The **Or** function applies to an entire expression. The sections of an expression that use the **Or** function must be balanced before and after the **Or** function.

⚠ **IMPORTANT:** Using nested parentheses will not overcome this limitation.

For example, the following condition is misconfigured with three parts (instead of a balanced four parts) and attempts to apply the **Or** expression to only the second and third parts of the expression by grouping the second and third parts using parentheses. With this configuration, the exception will not trigger when only the first and third sections are true.


Insert
Remove
Field Validation
Type
Equal
Value
Threshold
And
Or
Field Validation
Id 01
Equal
Employee
Country
And
Or
Field Validation
Id 02
Equal
Entry
Expense Type
And
Or
Field Validation
Id 03
Equal
Value
Per Transaction
And
Or
((
Entry
Country
Equal
Value
United Kingdom
And
Or
Entry
Amount
Greater Than
Field Validation
Amount1
)
And
Or
(
Entry
Country
Not Equal
Value
United Kingdom
)
And
Or
Entry
Amount
Greater Than
Field Validation
City Limit
))

This same expression, correctly configured with an equal number of parts before and after the **Or** function, looks like this:



Calculation Formulas

Expense types can be configured to use calculations to determine the transaction or adjusted amount. Validation rule fields Amount1 and Amount2 can be used in the expense type calculation formulas. In order to use those fields, the administrator must configure a validation rule that makes the amount values available to the formula calculations. The validation rule requires the following settings:

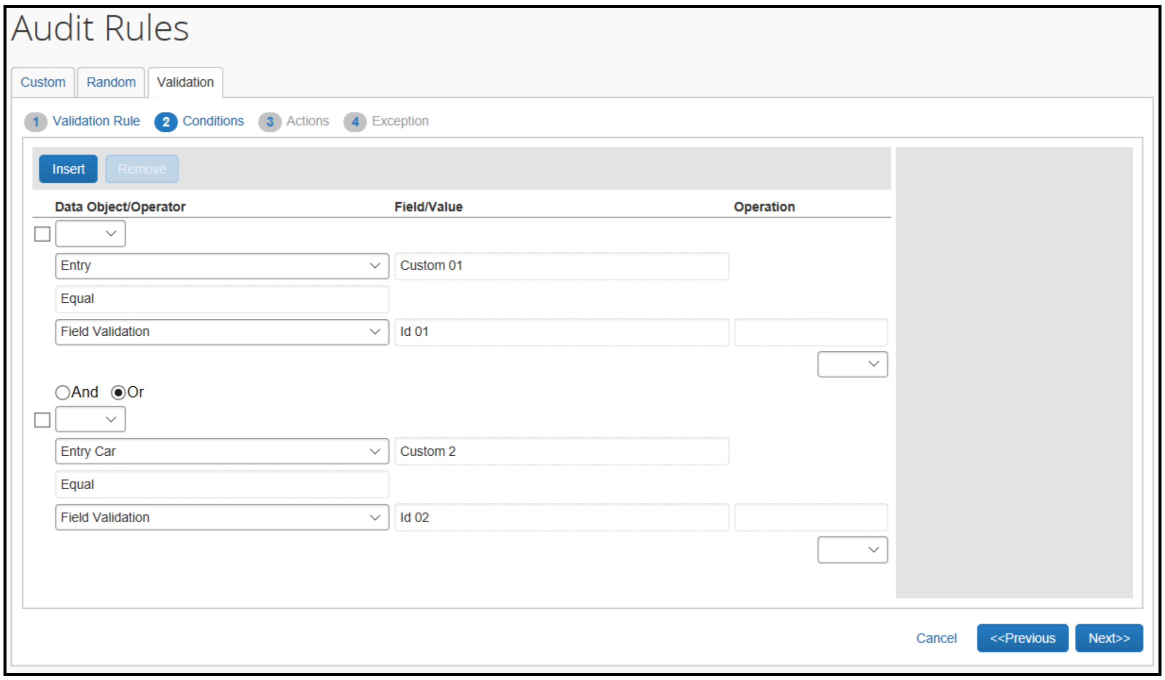
- The event must be Entry Save.
- The conditions must contain the Type and Id 01 fields.
- The action must be Calculation Formula.

You can only have one validation rule set up – ***per entity*** – to provide these values to the calculation engine. If there is already a validation rule configured for the Calculation Formula action, that action will not be available for other rules.

NOTE: Calculation formulas execute before any other validation rules or audit rules.

You can only have one condition set up – ***per validation rule field*** – for the Calculation Formula action to perform successfully. If a Calculation Formula action is assigned to a validation rule and there is more than one condition assigned to the same Field Calculation, then the calculation action will not be performed.

For example, this condition:



Will evaluate as:

The entry Custom 01 equals the validation rule field Id 01.

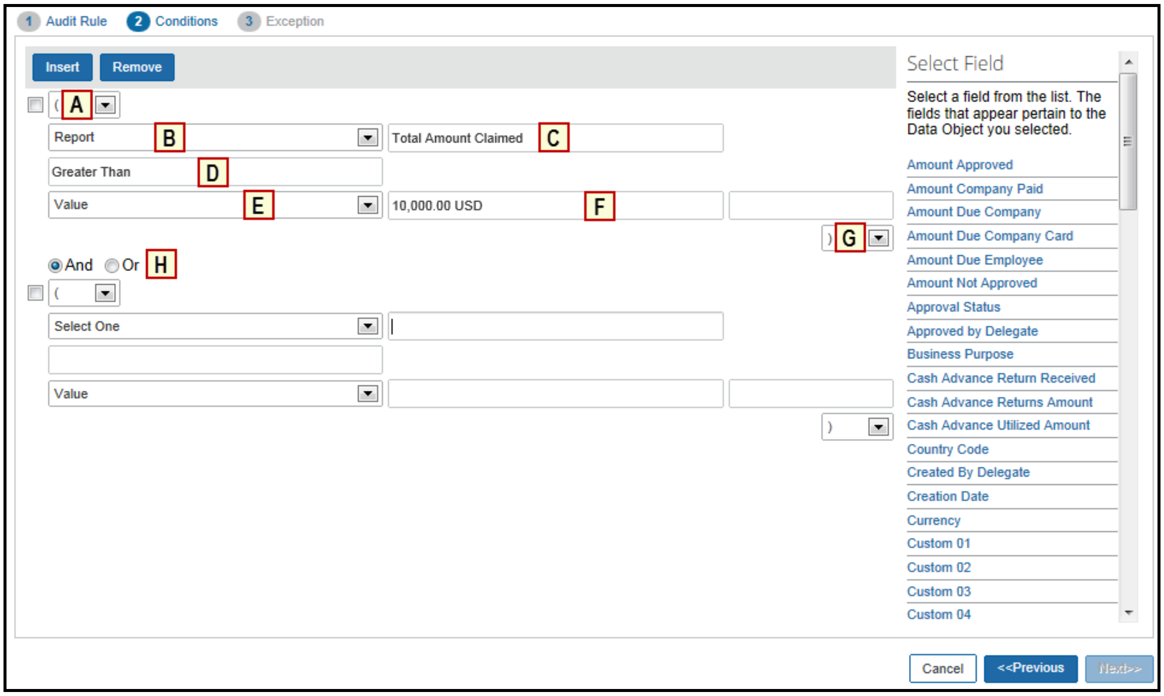
- or -

The entry car Custom 02 equals the validation rule field Id 02.

NOTE: There can only be one condition for Id 01 and one condition for Id 02.

Section 3: The Validation Condition Page

The **Condition** page in Validation Rules is similar to the **Condition** page used for Workflow and Processor.



Field	Description
A: Left Parenthesis	Select zero to three parentheses, depending on the complexity of the condition.
B: Data Object	The choices that appear in this list are based on the event that triggers the rule: • **Employee:** To create a condition based on employee-level fields. • **Entry** (expense)**:** To create a condition based on expense-level fields. • **Entry** (expense) **Allocation:** To create a condition based on an allocation. • **Report:** To create a condition based on report-level fields. • **Report Exception:** To create a condition based on report exceptions. • **Field Validation:** To create a condition based on evaluating a report field against an external field.
C: Field / Value	Select an item from the helper pane that appears. The information that appears in this pane is based upon the selection the administrator made in the **Data Object** list. **Field Validation**: This will display the list of columns from the validation table.

Field	Description
D: Operator	Select an item from the helper pane that appears. The information that appears in this pane is based upon your previous choices. **NOTE:** Some fields can have multiple values. When a field with multiple values is selected, the administrator must choose whether the condition will fire if **Any** or **Every** value matches. **NOTE:** If you use the **In** or **Not In** operators for Expense Types, you can select multiple check boxes to include as many expense types as are required.
E: Data Object	The system provides the option that best suits the previous choices. Change it if necessary. **List Validation**: This will display all currently configured custom simple lists, and is only available on the second data object selection list.
F: Field / Value	Select an item from the helper pane that appears. The information that appears in this pane is based upon the selection the administrator made in the **Data Object** list. **List Validation**: This will display all currently configured custom simple lists. **Field Validation**: This will display the list of columns from the validation table. Only columns that match the data type selected in field C above will display.
G: Right Parenthesis	Select zero to three parentheses, depending on the complexity of the condition.
H: And / Or	Select either option to join the current condition to the next condition.

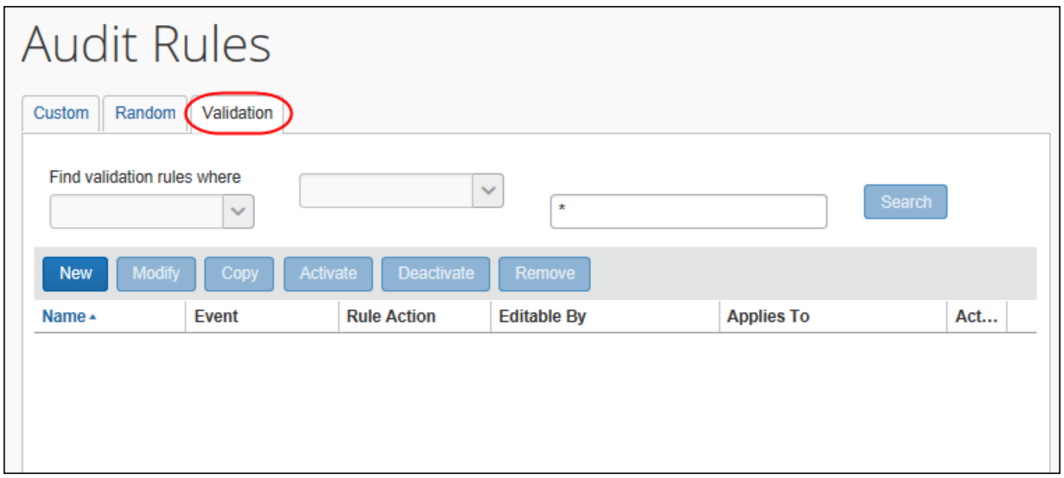
Section 4: Procedures

Accessing Validation Rules

NOTE: If the **Validation** tab does not appear, you will need to enable the module and/or enable the *Enable Validation Rules* setting in the Site Settings tool.

To access Validation Rules:

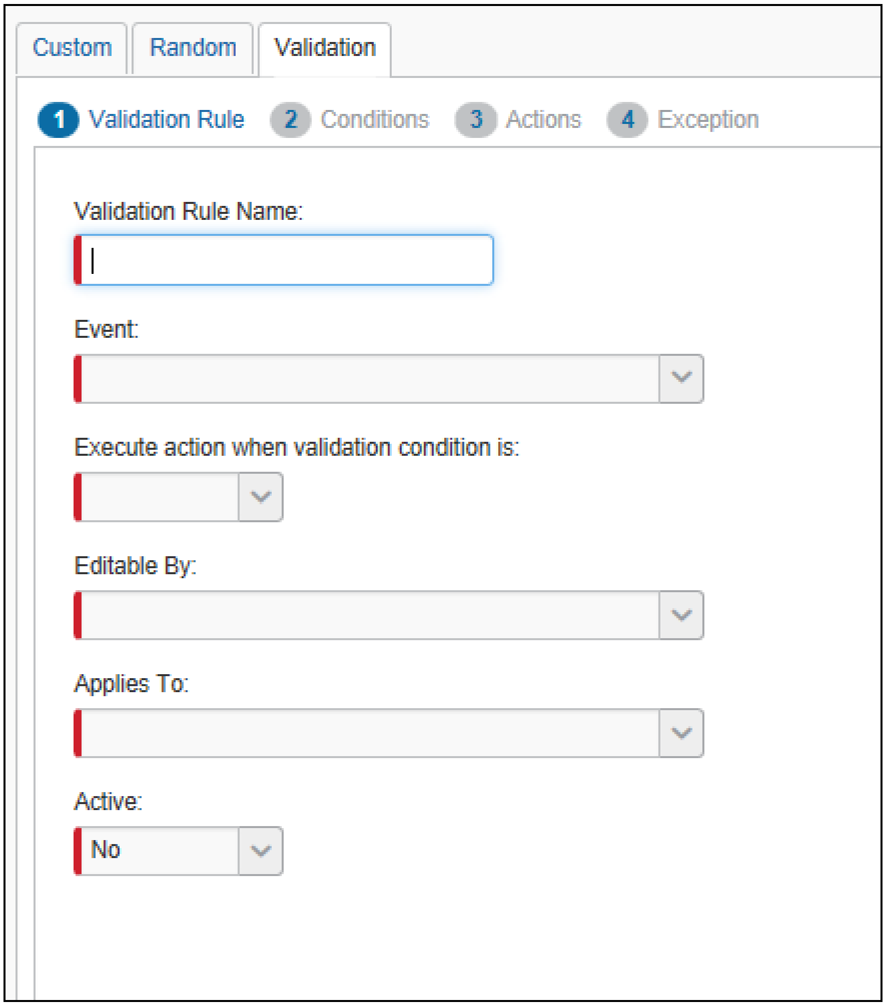
1. Click **Administration** > **Expense** > **Audit Rules**.
2. Click the **Validation** tab. The **Validation Rule List** page appears.



Adding a Validation Rule

To add a validation rule:

1. On the **Validation Rule List** page, click **New**. The page refreshes into a four-step wizard, starting with the **Validation Rule** page:

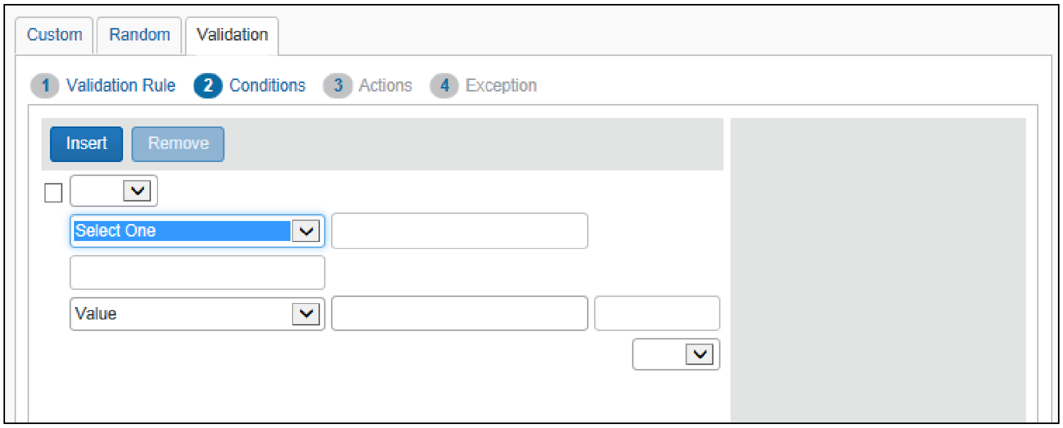


2. Complete the appropriate fields.

Field	Description
Validation Rule Name	Type the name of the rule.

Field	Description
Event	Select either: • **Allocation Save:** This rule is triggered as each individual allocation "line item" is saved. (Though this type of rule is triggered when the allocation is saved, the exception icon and message appear on the **Add Expense**, **Edit Expense**, or **Expense List** pages. The message and icon do not appear on the **Allocation** page.) • **Entry** (Expense) **Save:** The rule is triggered when an expense is saved, whether by the user, approver, or processor. • **Entry** (Expense) **Submit:** The rule is triggered when the expense is submitted and occurs before Report Submit events. • **Post Report Submit:** The rule is triggered immediately after a report enters the first step of workflow. Any exceptions generated will not prevent the report from being submitted. • **Report Save:** The rule is triggered immediately after the report header information is saved whether by the employee, approver, or processor. • **Report Submit:** The rule is triggered when the report is submitted. If there are exceptions generated that are above the exception level limit (that is, prevents report submission; described in *Exceptions* in this guide), then the report will not be submitted and will not enter the first step of a workflow.
Execute action when validation condition is:	This field controls when the action for the rule is executed. When the condition is: • True • False
Editable By Groups	Click the link; the associated helper pane appears. Select the appropriate group(s).
Applies To Groups	Click the link; the associated helper pane appears. Select the appropriate group(s).
Active	Select Yes (if necessary) to activate the rule upon completion.

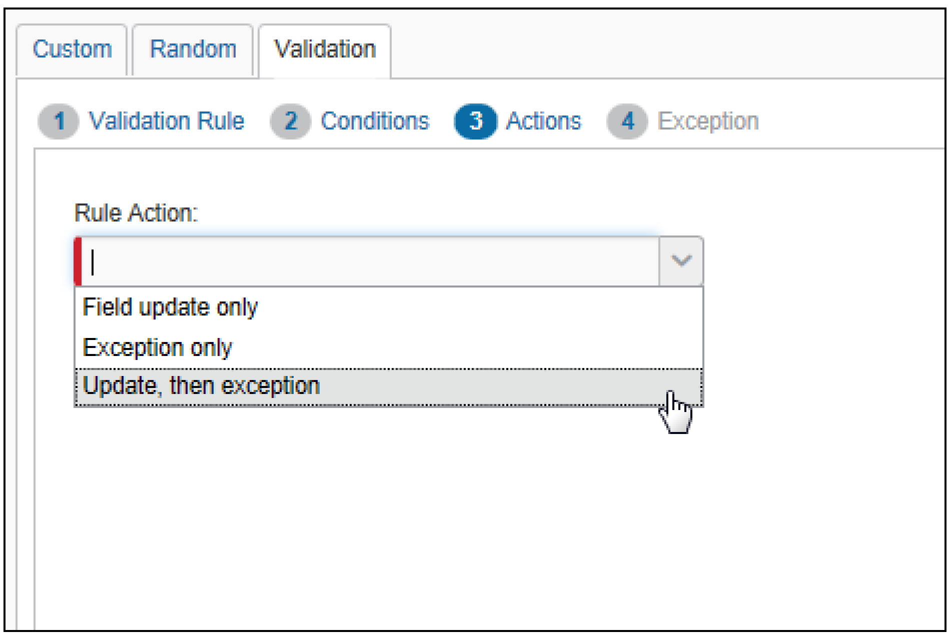
3. Click **Next**. The **Conditions** page appears.



4. Complete the appropriate fields.

   Refer to *Validation Conditional Expressions* in this guide for a description of this page.

5. Click **Next**. The **Actions** page appears.

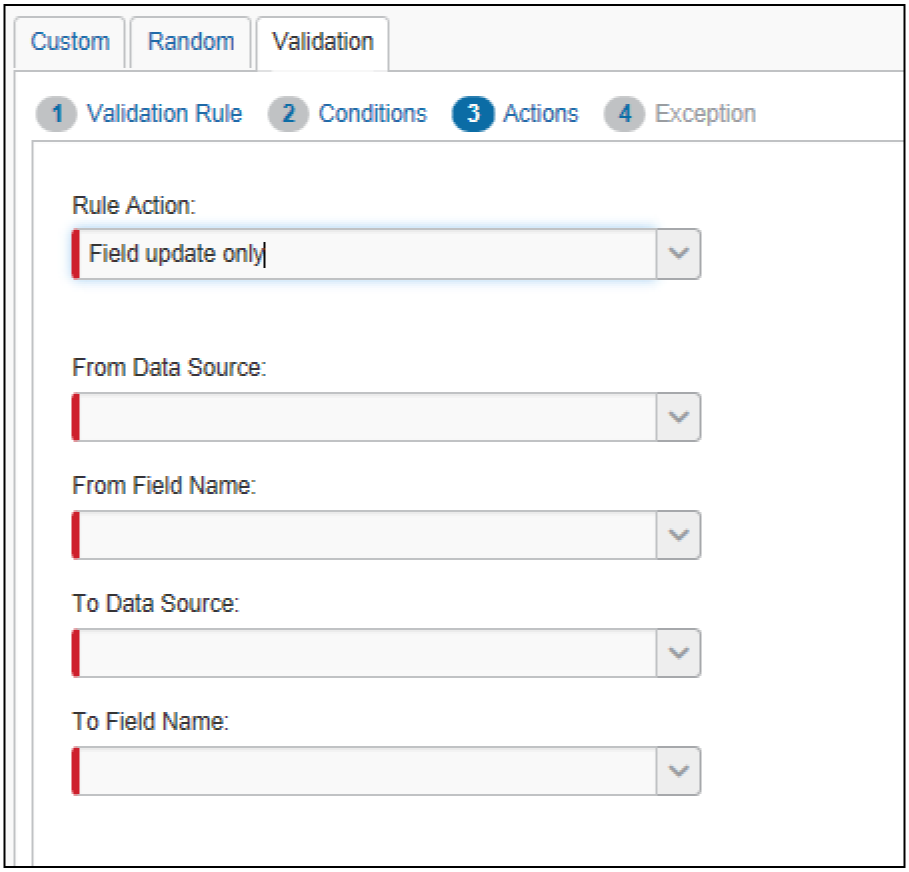


6. Select the appropriate action:
   - **Field update only:** If the rule is triggered, it will update the specified field. The report will continue through the workflow.
   - **Exception only:** If the rule is triggered, it will flag the entry. Depending on your exception level settings, it may prevent report submission.
   - **Field update, then exception:** If the rule is triggered, it will update the specified field and flag the entry. Depending on your exception level settings, it may prevent report submission.

- **Calculation Formulas:** If the rule is triggered, it will pass the values in the Amount1 and Amount2 fields to the Expense Type calculation formula engine.

  Refer to the *Calculation Formulas* section of this guide for more information.

7. If you selected a field update action, the **Actions** page refreshes with additional fields.

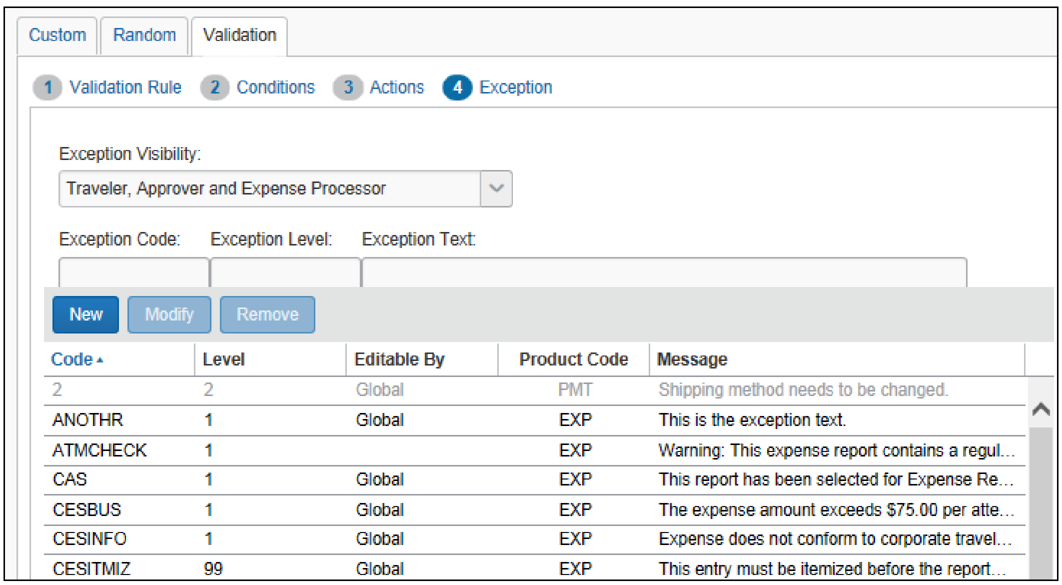


8. On the **Actions** page, select the fields to be modified.

Field	Description
From Data Source	The source of the fields that will be used for the update. The available sources will change depending on the event selected. They include: • Constant • Employee • Report Entry • Report Header • Validation Table

Field	Description
From Field Name	The field from the Data Source that will be used to update the Expense field. The list of fields displayed will change depending on the Data Source selected.
To Data Source	The Data Source of the field to be updated: • Report Header • Report Entry • **NOTE:** The options available will change depending on the event type selected for the audit rule.
To Field Name	The Expense field that will be updated. The list of fields displayed will change depending on the Data Source selected.

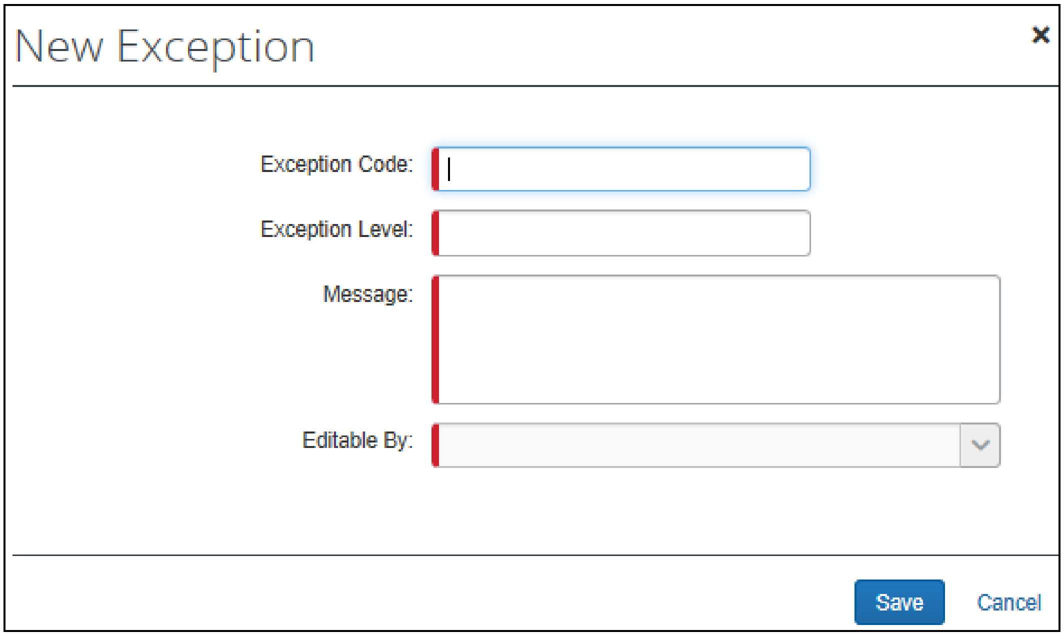
9. Click **Next**. If you selected an action including an exception, the **Exception** page appears.



10. Choose from an existing exception, or decide to create a new exception by first choosing from **Exception Visibility**.

Field	Description
Exception Visibility	Select the users who are able to see the exception message by selecting: • Traveler (user), Approver, and Expense Processor • Approver and Expense Processor • Expense Processor

11. Click **New** to open the **New Exception** window.



12. Complete the appropriate fields.

Field	Description
Exception Code	The company-defined code for the exception, up to eight alphanumeric characters, all uppercase.
Exception Level	The numeric exception level of the audit rule. The company decides how many exception levels (up to 99) to use. For example, the company can decide to have six exception levels, with level 1 being a minor exception and level 6 being a severe exception.
Message	The exception message that appears to the user, approver and/or processor. **NOTE:** This is a text field and does not support HTML formatting.
Editable By	Select the group(s) that can edit the exception.

13. Click **Save**.

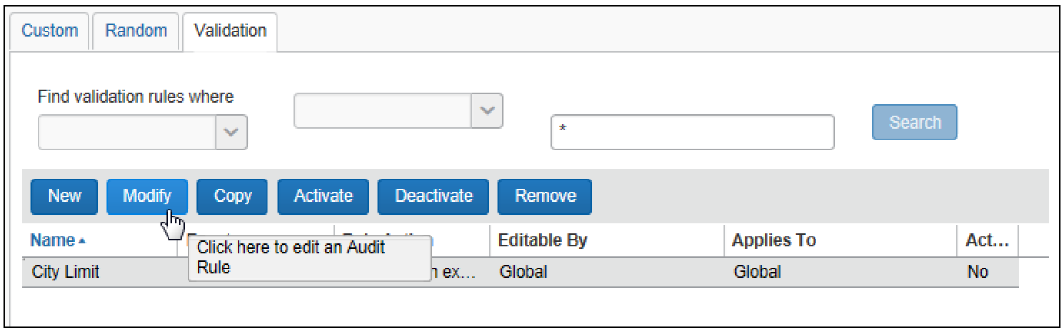
14. The exception you created is pre-selected - click **Done** to include the exception with the validation rule and finish this task.

Editing a Validation Rule

For detailed information about all of the fields on this page, refer to *Adding a Validation Rule* in this guide.

To edit a validation rule

1. On the **Validation** tab, select the desired rule.
2. Click **Modify**.



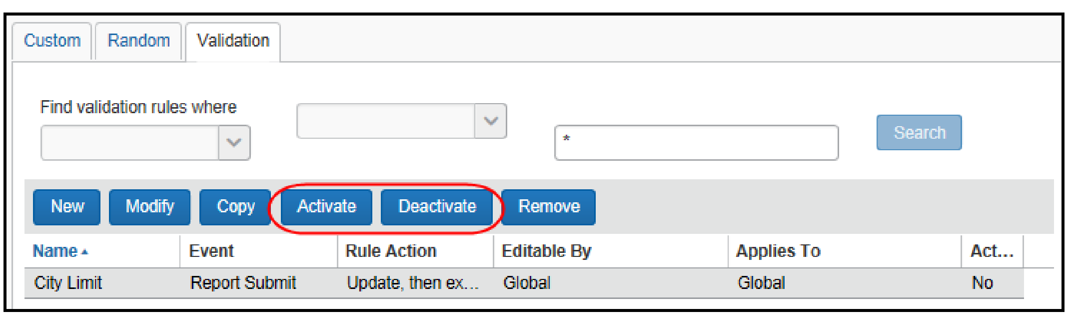
3. Make the desired changes.
4. Click **Done**.

Deactivating / Activating a Validation Rule

Instead of deleting a rule, you can deactivate it. This way, the rule is still available if you want to use it in the future.

To deactivate / activate a validation rule

1. On the **Validation** page, select the rule to activate or deactivate.



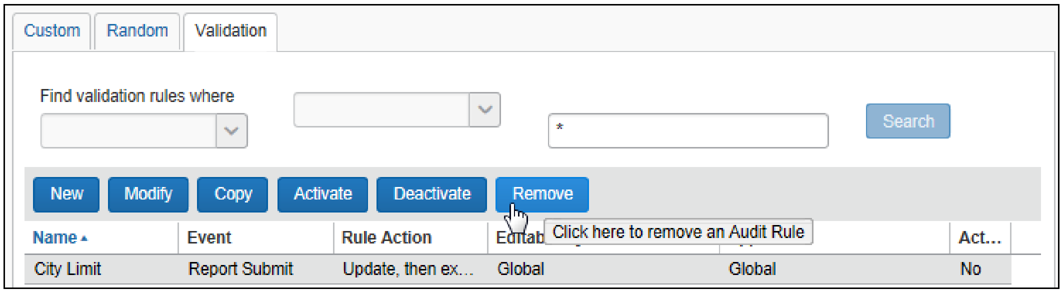
2. Select **Activate** or **Deactivate** depending on the action you want to perform.

Deleting a Validation Rule

Deleted rules are permanently removed. Instead of deleting a rule, you can deactivate it. This way, the rule is still available if you want to use it in the future.

To delete a validation rule:

1. On the **Validation** page, select the rule to delete.



2. Click **Remove**.