



Integrated Compliance Information System NPDES

Technical Specification Document

Expected Discharge Monitoring Report (DMR) Schedule

Version 2.1

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1. OVERVIEW OF EXPECTED DMR SCHEDULE

The job of the Expected DMR Schedule is to use Permit, Limit Set, and Limit data to generate and manage the “shell” DMR records for each Limit Set in the system. Using these data, the program will:

- Generate the expected DMR Form records for a Limit Set
- Generate the expected DMR Parameter records for each DMR Form based on the Limits
- Generate the expected DMR Value records for each DMR Parameter based on the Limit Values
- Delete DMR Forms
- Delete DMR Parameters
- Delete DMR Values
- Update DMR Form data (i.e., DMR Due Date)
- Move DMR Parameters among the Limits (e.g., if the user adds a Permit Modification Limit (PML) to a Limit Set, DMR data originally linked to the Base Limit for that Parameter may be unlinked by the program from the Base Limit and linked to the PML)
- Move DMR Values when a DMR Parameter is moved
- Validate that edits and modifications to Permits, Limit Sets, and Limits do not violate business rules
- Execute DMR Data Processing to update the Violations for DMR Values.

Table 1-1 lists the data elements populated by the system for the Expected DMR Schedule and those entered by the user.

Table 1-1. Expected DMR Schedule Data Elements

Level of Data	Expected DMR Schedule-Populated Data Elements	User-Entered Data Elements
DMR Form	<ul style="list-style-type: none"> • NPDES ID • Permitted Feature Identifier • Limit Set Designator • Monitoring Period End Date (Scheduled Limit Sets only) • DMR Due Date (Scheduled Limit Sets only) 	Main DMR Form <ul style="list-style-type: none"> • Monitoring Period End Date (Unscheduled Limit Sets only) • Principal Executive Officer First Name • Principal Executive Officer Last Name • Principal Executive Officer Title • Signatory First Name • Signatory Last Name • Signatory Phone • Signature Date • DMR Form Comments • Submit Status Flag Biosolids Data Elements (see Appendix B for full list of Biosolids DMR Form Data Elements) <ul style="list-style-type: none"> • Land Application Site data elements • Surface Disposal Site data elements • Incinerator data elements • Co-Disposal Site data elements
DMR Parameter	<ul style="list-style-type: none"> • Parameter Code • Monitoring Location Code 	<ul style="list-style-type: none"> • Reported Sample Type • Reported Frequency of Analysis • Reported Number of Excursions • User Entered Index (this is the sort order generated by the system based on the order in which the parameters are entered in DMR Form View)
DMR Value	<ul style="list-style-type: none"> • Value Type 	<ul style="list-style-type: none"> • DMR Value Received Date • Reported Unit Code • No Data Indicator (NODI)¹ • DMR Value • Adjusted DMR Value • Value Qualifier • Unit Code Calculated by Data Entry & DMR Data Processing based on user-entered data: <ul style="list-style-type: none"> • DMR Value in Standard Units • Adjusted DMR Value in Standard Units • Percent Exceedence • Number of Days Late

1.1 SUMMARY OF THE PROGRAM

The Expected DMR Schedule program can be invoked by either a system or a user action (see Appendix A for a list of those actions) to update the expected DMR records for the following:

- All the Limit Sets in a Permit (e.g., the user has made a Permit-level change such as adjusting the Effective Date of the Permit)

¹ During data entry, users are able to enter, as a convenience, NODI at the DMR Form or Parameter level. However, the system only stores this data at the DMR Value level.

- A single Limit Set (e.g., the user has updated a Limit Set and/or its Limits such as modifying a Limit Set or adding a Limit segment)
- A single DMR Form (e.g., the user adds an Unscheduled DMR).

The basic operations performed by this program for changes to each Limit Set are as follows:

- Calculate the Expected DMR Schedule for the new conditions (i.e., the New Schedule), which includes:
 - Calculate how long the Expected DMR Schedule should extend based upon Permit and Limit Set data
 - Calculate the Monitoring Period End Dates and DMR Due Dates for each DMR Form in the Schedule
 - Determine the DMR Parameters for each DMR Form
 - Determine the DMR Values for each DMR Parameter.
- Compare the Expected DMR Schedule for the original conditions (i.e., the Old Schedule) to the New Schedule to validate that:
 - Received DMR data will not be orphaned
 - Adjusted DMR data will be linked to Limit segments with Trade Status = On
- Copy the following data from the Old Schedule to matching records on the New Schedule:
 - User-entered DMR Form, Parameter, and Value data
 - DMR Violations and linkages to Enforcement Actions (if any)²
 - DMR Form links to Program Reports.
- Perform DMR Data Processing to create/update/delete Violations based on the New Schedule
- Delete the following data from the appropriate (i.e., Old or New) Schedule:
 - Delete the Old Schedule if the process has run successfully in execution mode, including:
 - ♦ DMR Form records
 - ♦ DMR Parameter records
 - ♦ DMR Value records
 - ♦ Violations and linkages to Enforcement Actions
 - ♦ Administrative Discrepancies linked to DMR Parameters³

²Violations are copied to the New Schedule rather than just regenerated to ensure that manual Reportable Noncompliance (RNC) Detection and Resolution data are not wiped out. In addition, the Violations are copied to preserve the results of the Effluent RNC process, which is time-based. The Violations, of course, will only be copied if the Old Schedule DMR Value to which the Violation was linked exists in the New Schedule (i.e., if the user has updated the Limit Set data such that the DMR Value no longer exists for the Violation, the Violation will be deleted along with any user-entered data for that Violation).

- ◆ DMR Form links to Program Reports.
- Delete the New Schedule⁴ if the process has encountered an error or has been run in validation mode, including:
 - ◆ DMR Form records
 - ◆ DMR Parameter records
 - ◆ DMR Value records
 - ◆ Violations
 - ◆ Administrative Discrepancies.

1.2 FACTORS INFLUENCING THE EXPECTED DMR SCHEDULE

There are many factors that influence the Expected DMR Schedule for a Limit Set:

- Permit Factors (see Section 1.2.1)
- Limit Set Factors (see Section 1.2.2)
- Limit Factors (see Section 1.2.3)
- DMRs and Violations (see Section 1.2.4)
- Overall Monitoring Period End Date Cutoff (see Section 1.2.5).

When all these factors are taken into account, the program can update the Expected DMR Schedule for a Limit Set.

1.2.1 Permit Factors

- **Permit Type**

There are three types of Permits: Individual, Master General Permit (MGP), and General Permit Covered Facility (GPCF). Only Individual Permits and GPCFs will have Expected DMR Schedules. Master General Permits will not have Expected DMR Schedules and will never be processed by the Expected DMR Schedule program.
- **Permit Dates and Status**

Permit Dates and Statuses can affect whether a Permit's Limit Sets have an expected DMR Schedule generated for them. When the Permit meets any of the following conditions, none of its Limit Sets should have an expected DMR Schedule:

 - Status equals Pending (i.e., Effective Date is blank)
 - Status equals Not Needed

³Administrative Discrepancies are not copied from the Old Schedule because they have no data that must be preserved from one version of the Expected DMR Schedule to another. If an Administrative Discrepancy is needed for a particular DMR Parameter, it will be generated when the New Schedule is processed by DMR Data Processing.

⁴ Since the New Schedule is not committed to the database until the system is sure there are no errors and the processing is being run for validation only, the "deletion" really just means do not commit these records and erase them from memory.

- Reissued Permit will have no expected DMR Schedule when it is still a Reissuance in Progress (i.e., the user has not yet finished the Reissuance).

If the user switches a previously effective Permit to Pending or Not Needed (e.g., by blanking out the Effective Date of the Permit), the entire Expected DMR Schedule for its Limit Sets will be deleted. In addition, the Permit Dates and Status also affect the Monitoring Period End Date Cutoff (see Section 1.2.5).

- **Edit vs. Reissuance in Progress**

The state of the Permit in which user actions take place is very important in determining whether the system will actually execute the Expected DMR Schedule program or whether it will just be called for validation purposes. In addition, depending on which version of the Permit (i.e., Current View vs. Reissuance in Progress) in which a change occurs, the Old Schedule and the New Schedule will be attached to different version of the Permit. **It is important to note that Expected DMR Schedule Validation will be performed for a Reissuance in Progress only when the user attempts to Finish the Reissuance.** The system will not perform validation against the current view of the Permit when a user edits a Reissuance in Progress.

Table 1.1-2 below summarizes the modes and how the system will handle the Expected DMR Schedule within each mode in addition to which view of the Permit the Old and New Schedules are linked.

Table 1.1-2. Modes and System Responses

Mode	Response	Old Schedule	New Schedule
Edit	Immediately validate and execute the program	Current View	Current View
Finish Reissuance (i.e., the user finishes the Reissuance in Progress)	Validate and execute	Current View (becomes the Old View once the reissuance is complete)	Reissuance in Progress (becomes the Current View once the reissuance is complete)

1.2.2 Limit Set Factors

- **Limit Set Type**

The two Limit Set Types, Scheduled and Unscheduled, have different data and business rules requirements. Depending on which type of Limit Set is being evaluated, the program will perform slightly different business rules to generate its schedule. For example, the Expected DMR Schedule program will only generate a DMR for an Unscheduled Limit Set when the user chooses to add an Unscheduled DMR and enters a Monitoring Period End Date. It will not pre-populate all expected DMRs until triggered by the user, and will leave the DMR Due Date blank for these DMR Forms. Scheduled Limit Sets, however, will have all expected DMRs generated for them at the time of Limit Set and Limit data entry, including DMR Due Date and Monitoring Period End Date.

- **Initial Monitoring Date and Initial DMR Due Date for Scheduled Limit Sets**

When the user enters an Initial Monitoring Date/Modification Initial Monitoring Date (IMD/MIMD) for a Scheduled Limit Set, the system calculates the Initial Monitoring

Period End Date (IMPED) for that row of schedule data. Then, using the Initial Monitoring Period End Date, the system calculates the subsequent Monitoring Period End Dates (MPED) for that row of schedule data.

The formula for calculating the IMPED for a row of schedule data is:

$$\text{IMPED} = \text{IMD}/\text{MIMD} + (\text{Number of Report Units} \times \text{Calendar Month}) - 1 \text{ day}$$

For example if the user enters March 1st as the MIMD for a row of Limit Set modification schedule data with three monitoring periods per year, the IMPED is calculated as follows:

$$\text{IMPED} = 3/1 + (4 \text{ Calendar Months}) - 1 \text{ day}$$

$$\text{IMPED} = 7/1 - 1 \text{ day}$$

$$\text{IMPED} = 6/30$$

The formula for calculating subsequent Monitoring Period End Dates changes depending on whether the user wants to have the Monitoring Period End Date always be the last day of a month or to be a specific date:

- If the user enters the Initial Monitoring Date/Modification Initial Monitoring Date as the first day of the month, the Initial and subsequent Monitoring Period End Dates will always be calculated as the last day of the month. The formula for calculating the subsequent Monitoring Period End Dates for a row of schedule data that ends on the last day of the month is:

$$\text{MPED} = \text{Last Day of Month of } (\text{Previous MPED} + (\text{Number of Report Units} \times \text{Calendar Month}))$$

For example, the next MPED for the IMPED calculated above would be:

$$\text{MPED} = \text{Last Day of Month of } (6/30 + 4 \text{ Calendar Months})$$

$$\text{MPED} = \text{Last Day of Month of } (10/30)$$

$$\text{MPED} = 10/31$$

- If the user enters the Initial Monitoring Date/Modification Initial Monitoring Date as any day but the first day of the month, the Initial and subsequent Monitoring Period End Dates will always be calculated as one day less than the Initial Monitoring Date/Modification Initial Monitoring Date. The formula for calculating the subsequent Monitoring Period End Dates for a row of schedule data that does not end on the last day of the month is:

$$\text{MPED} = \text{Previous MPED} + (\text{Number of Report Units} \times \text{Calendar Month})$$

For example, the next MPED for an IMD of June 15th with monthly monitoring periods would be:

$$\text{IMPED} = 6/15 + (1 \text{ Calendar Month}) - 1 \text{ day}$$

$$\text{IMPED} = 6/14$$

$$\text{MPED} = 6/14 + 1 \text{ Calendar Month}$$

$$\text{MPED} = 7/14$$

DMR Due Date (DDD) will be handled similarly as follows:

- If the user enters the Initial DMR Due Date/Modification Initial DMR Due Date (IDDD/MIDDD) as the last day of the month⁵, the Initial and subsequent DMR Due Dates will always be calculated as the last day of the month. The formula for calculating the subsequent DMR Due Dates for a row of schedule data that ends on the last day of the month is:

$$DDD = \text{Last Day of Month of (Previous DDD + (Number of Submission Units x Calendar Month))}$$

For example, the next DDD for an IDDD of 4/30, submitted semi-annually would be:

$$DDD = \text{Last Day of Month of (4/30 + 6 Calendar Months)}$$

$$DDD = \text{Last Day of Month of (10/30)}$$

$$DDD = 10/31$$

- If the user enters the Initial DMR Due Date/Modification Initial DMR Due Date as any day but the last day of the month, the Initial and subsequent DMR Due Dates will always be calculated as the same day of the month as the Initial DMR Due Date/Modification Initial DMR Due Date. The formula for calculating the subsequent DDDs for a row of schedule data that does not end on the last day of the month is:

$$DDD = \text{Previous DDD + (Number of Report Units x Calendar Month)}$$

For example, the next DDD for an IDD of June 15th submitted bi-monthly would be:

$$DDD = 6/15 + 2 \text{ Calendar Months}$$

$$DDD = 8/15$$

Table 1.2-5 shows examples of MPEDs and DDDs with monthly monitoring periods (i.e., Number of Report Units = 1) submitted monthly (i.e., Number of Submission Units = 1).

Table 1.2-5. Examples of MPEDs and DDDs

Example	User-Entered IMD	System Calculated IMPED	User-Entered IDDD	System Calculated Subsequent MPEDs	System Calculated Subsequent DDDs
1	6/1/2002	6/30/2002	7/15/2002		
				7/31/2002	8/15/2002
				8/31/2002	9/15/2002
				9/30/2002	10/15/2002
				10/31/2002	11/15/2002
				11/30/2002	12/15/2002
				12/31/2002	1/15/2003
				1/31/2003	2/15/2003
				2/28/2003...	3/15/2003...

⁵ Note: February 28th is not treated as the last day of the month for purposes of this calculation per CR 5.

Example	User-Entered IMD	System Calculated IMPED	User-Entered IDDD	System Calculated Subsequent MPEDs	System Calculated Subsequent DDDs
2	6/15/2002	7/14/2002	7/31/2002		
				8/14/2002 9/14/2002 10/14/2002 11/14/2002 12/14/2002 1/14/2003 2/14/2003 3/14/2003...	8/31/2002 9/30/2002 10/31/2002 11/30/2002 12/31/2002 1/31/2003 2/28/2003 3/31/2003...
3	6/1/2002	6/30/2002	7/31/2002		
				7/31/2002 8/31/2002 9/30/2002 10/31/2002 11/30/2002 12/31/2002 1/31/2003 2/28/2003 2/28/2003...	8/31/2002 9/30/2002 10/31/2002 11/30/2002 12/31/2002 1/31/2003 2/28/2003 3/31/2003...
4	6/15/2002	7/14/2002	8/15/2002		
				8/14/2002 9/14/2002 10/14/2002 11/14/2002 12/14/2002 1/14/2003 2/14/2003 3/14/2003...	9/15/2002 10/15/2002 11/15/2002 12/15/2002 1/15/2003 2/15/2003 3/15/2003 4/15/2003...

• **Limit Set Schedule Data**

Limit Set modifications are used to apply a change from a point forward in time. As such, the system records the schedule data for the Limit Set as it changes.

The schedule data for Scheduled Limit Sets are:

- Initial Monitoring Date (IMD)/Modification Initial Monitoring Date (MIMD)
- Initial DMR Due Date (IDDD)/Modification Initial DMR Due Date (MIDDD)
- Number of Report Units (NRU)/Modification Number of Report Units (MNRU)
- Number of Submission Units (NSU)/Modification Number of Submission Units (MNSU).

The only schedule data element for Unscheduled Limit Sets is the Number of Report Units/Modification Number of Report Units.

The system tracks the schedule data for a Limit Set over time. Table 1.2-1 below displays an example of this schedule data for a Limit Set that was part of the original Permit (Effective Date June 1, 2002, Expiration Date May 31, 2007) and modified twice. Using

the IMD/MIMD and the Number of Report Units/Modification Number of Report Units (NRU/MNRU), the system calculates the IMPED for each row of Limit Set schedule data. The Number of Submission Units/Modification Number of Submission Units (NSU/MNSU) will be used by the system to calculate the DDDs for each row of schedule data.

Table 1.2-1. Example of Limit Set Schedule Data

Schedule Source	Modification Effective Date	IMD/MIMD	IMPED (calculated by system)	IDDD/MIDDD	NRU/MNRU	NSU/MNSU
Original Permit		6/1/2002	6/30/2002	7/15/2002	1	1
Modification	9/15/2003	9/15/2003	10/14/2003	1/1/2004	1	3
Modification	1/1/2005	4/1/2005	6/30/2005	7/15/2005	3	3

In this situation, the user would expect to have monthly DMRs due every month with the first MPED being June 30, 2002. Table 1.2-2 shows the Initial Expected DMR Schedule for the Permit.

Table 1.2-2. Initial Expected DMR Schedule for the Permit

MPED	DMR Due Date
6/30/2002	7/15/2002
7/31/2002	8/15/2002
8/31/2002	9/15/2002
9/30/2002	10/15/2002
10/31/2002	11/15/2002
11/30/2002	12/15/2002
12/31/2002	1/15/2003
1/31/2003	2/15/2003
2/28/2003	3/15/2003
3/31/2003	4/15/2003
4/30/2003	5/15/2003
5/31/2003	6/15/2003
6/30/2003	7/15/2003
7/31/2003	8/15/2003
8/31/2003	9/15/2003
9/30/2003	10/15/2003
10/31/2003	11/15/2003
11/30/2003...	12/15/2003...

When the Permit is first modified, the last MPED for this Limit Set for the original monthly DMRs would be set to August 30, 2003, which is the last MPED for the original Permit schedule data that is less than the MIMD of the next schedule data (September 15, 2003). Starting with the first October 14, 2003, IMPED for the Permit modification, the user would expect to have monthly DMRs due every three months. Table 1.2-3 shows the expected DMR Schedule for this Limit Set after the modification has occurred.

Table 1.2-3. Expected DMR Schedule After First Modification

MPED	DMR Due Date
6/30/2002	7/15/2002
7/31/2002	8/15/2002
8/31/2002	9/15/2002
9/30/2002	10/15/2002
10/31/2002	11/15/2002
...	...
7/31/2003	8/15/2003
8/31/2003	9/15/2003
9/30/2003	10/15/2003
10/31/2003	11/15/2003
11/30/2003...	12/15/2003...
10/14/2003	1/1/2004
11/14/2003	1/1/2004
12/14/2003	1/1/2004
1/14/2004	4/1/2004
2/14/2004	4/1/2004
3/14/2004	4/1/2004
...	...
1/14/2005	4/1/2005
2/14/2005	4/1/2005
3/14/2005	4/1/2005
4/14/2005	7/1/2005
5/14/2005	7/1/2005
6/14/2005...	7/1/2005...

System deletes old Forms for which the MPED is greater than or equal to the Modification Initial Monitoring Date

System generates new Forms starting from the Modification Initial Monitoring Date

When the Limit Set is modified for the second time, the last MPED for the first would be March 14, 2003. Then starting with the June 30, 2005 IMPED for the second modification, the user would expect to have three month DMRs due every three months until the Permit was Reissued or Terminated. Table 1.2-4 shows the expected DMR Schedule for the Limit Set after the second modification.

Table 1.2-4. Expected DMR Schedule After Second Modification

MPED	DMR Due Date
6/30/2002	7/15/2002
7/31/2002	8/15/2002
8/31/2002	9/15/2002
9/30/2002	10/15/2002
10/31/2002	11/15/2002
...	...
7/31/2003	8/15/2003
8/31/2003	9/15/2003
10/14/2003	1/1/2004
11/14/2003	1/1/2004
12/14/2003	1/1/2004
1/14/2004	4/1/2004
2/14/2004	4/1/2004
3/14/2004	4/1/2004
...	...
1/14/2005	4/1/2005
2/14/2005	4/1/2005
3/14/2005	4/1/2005
4/14/2005	7/1/2005
5/14/2005	7/1/2005
6/14/2005...	7/1/2005...
6/30/2005	7/15/2005
9/30/2005	10/15/2005
10/31/2005	1/15/2006
11/30/2005...	2/15/2006...

System deletes old Forms for which the MPED is greater than or equal to the Modification Initial Monitoring Date for the latest Permit Modification

System generates new Forms starting from the new Modification Initial Monitoring Date

- **Limit Set Status**

If the Limit Set’s Status is Inactive for a Monitoring Period End Date, that DMR Form will not be generated.

1.2.3 Limit Factors

- **Hierarchy of Limits**

The system attaches DMR Parameters to a DMR Form according to the Start and End Dates of the Limits that apply for the DMR’s Monitoring Period End Date. Only one kind of Limit for a Parameter may be linked to a DMR Parameter for a particular Monitoring Period End Date. When a particular Limit Parameter has Base Limits, Permit Modification Limits (PMLs), and/or Enforcement Action (EA) Limits share almost all the key data elements (i.e., NPDES ID, Permitted Feature ID, Limit Set Designator, Parameter

Code, Monitoring Location Code, Season ID), except the Limit Start and End Dates, the system will link the Expected DMR Schedule for the DMR parameter to the Limit segment that is highest in the hierarchy in Table 1.2-6.

Table 1.2-6. Hierarchy for Determining the Limit Segment To Use for Expected DMR Schedule DMR Parameter

Order	Type	Limit Selection Rule	Administrative Continuance Rule
1	Enforcement Action Limits	If more than one Enforcement Action Limit for an MPED exists, use the Limit from the Enforcement Action with the latest Enforcement Action date (i.e., Final Order Issued Date for Administrative Enforcement Actions or Final Order Entered Date for Judicial Enforcement Actions)	Do not administratively continue; however, allow Limit End Date to exceed Permit Expiration Date
2	Permit Modification Limits	If more than one Permit Modification Limit for an MPED exists, use the Permit Modification Limit with the latest modification effective date	Administratively continue latest Permit Modification Limit that has Limit End Date = Permit Expiration Date if no Enforcement Action Limit for the MPED
3	Base Limit	If no Permit Modification Limit or Enforcement Action Limit exists, use the Base Limit for an MPED	If no Enforcement Action Limits or Permit Modification Limits, administratively continue last Base Limit Segment that has Limit End Date = Permit Expiration Date

If a MPED has no Limits at all, the DMR Form will not be included in the Expected DMR Schedule.

- **Limit Optimization**

When the user performs actions at the Permit or Limit Set level (e.g., edit Limit Set, reissue Permit, Nightly Processing extends the Schedule), the Expected DMR Schedule is reevaluated for the entire Limit Set. However, when the user performs actions at the Limit level (e.g., Add Limit, Edit Limit, Edit Limit Key Data, Delete Limit), the system only reevaluates the Schedule for the parameter affected. In this case, the system will look at all Limit segments for the impacted parameter, defined as those limit records sharing:

- NPDES ID (icis_permit.external_permit_nmbr)
- Permitted Feature ID (icis_perm_feature.perm_feature_nmbr)
- Limit Set Designator (icis_limit_set.limit_set_designator)
- Parameter Code (icis_limit.parameter_code)
- Monitoring Location Code (icis_limit.monitoring_location_code)
- Season ID (icis_limit.limit_season_id).

1.2.4 DMRs and Violations

- **DMR Submittal Status**

If a web user edits and saves DMR data but does not hit the Submit button for the DMR

Form, that DMR Form will be flagged by the system as Unsubmitted. When the Expected DMR Schedule receives a Limit Set which requires a DMR Schedule update, if that Limit Set has any DMRs that are Unsubmitted, the system will not process that Limit Set and will generate an error message. From the front end (i.e., GUI and batch interfaces), edits and reissuances of Permits/Limit Sets with Unsubmitted DMRs will be rejected. When this program first generates a DMR Form, its submittal flag will be defaulted to blank.

- **Presence of Received DMR Data on Old Schedule**

If DMR Data have been received for a DMR Value on the Old Schedule, the system will validate that the DMR Value exists on the New Schedule by validating that matching key data element values exist on both the Old and New Schedules (i.e., NPDES ID, Permitted Feature ID, Limit Set Designator, MPED, Parameter Code, Monitoring Location Code, Value Type). If Adjusted DMR data have been entered, the system will validate that the DMR Value on the New Schedule is linked to a Limit with an Effluent Trade Partner. Once the system validates that these business rules will not be violated, user-entered DMR data is copied from the Old Schedule to the New Schedule.

- **Presence of Violations on Old Schedule**

If a DMR Value on the Old Schedule has any Violations, those Violations will be copied from the Old Schedule to the New Schedule for which matching DMR Values exist, including linkages to Enforcement Actions/Final Orders.

- **Limited Scope of Values Sent for Violation Evaluation**

To optimize processing time, when the following actions are performed, a subset of the New Schedule DMR Values will be evaluated for Violations:

- Limit Add/Edit/Delete: When a limit action triggers Expected DMR Schedule reevaluation, only the DMR Values associated with the updated parameter will be evaluated for Violations
- Reissuance: When a reissuance triggers Expected DMR Schedule reevaluation, only the DMR Values dated after the Reissuance Effective Date will be evaluated for Violations.

1.2.5 Overall Monitoring Period End Date Cutoff

- **Monitoring Period End Date (MPED) Cutoff**

One of the major calculations the Expected DMR Schedule program will perform for each Scheduled Limit Set is how far out to generate the DMR Forms. The latest date possible for Monitoring Period End Dates for DMR Forms for a Limit Set is called the MPED Cutoff.

One of the key requirements for the MPED Cutoff is that users always want to be able to generate at least a year's worth of DMRs in the future for DMR pre-prints. This means that the Expected DMR Schedule always has to have an MPED Cutoff that will allow this to happen. There are many factors that will impact the ultimate MPED Cutoff for a Scheduled Limit Set:

- Termination: if the Permit is Terminated, it may no longer be reissued/retired, modified, or administratively continued. Thus, if a Permit Termination Date is

present, no DMR Forms with MPEDs greater than the Termination Date will be generated by the system. If DMR Forms with MPEDs greater than the Termination Date exist when the user terminates a Permit, the DMR Forms will be deleted by the system⁶.

- Retirement/Reissuance: DMR Forms for the old view of the permit cannot be after the effective date of the new permit.
- Permit Status:
 - ◆ Effective permits are extended to the Permit Expiration Date until the Permit is within 12 months of the Expiration Date. At that point, additional forms are generated to a year or so past the Expiration Date
 - ◆ Administratively Continued/Expired Permits are extended to ensure there is at least a year's worth of future data at any given time. The calculation of where to set the MPED cutoff for these Permits is determined by whether a schedule already exists for the Limit Set, the latest MPED on existing schedules, and the Number of Report Units for the Limit Set.

1.3 DEPENDENCIES

This program will be called or invoked by user actions such as editing a Limit Set or Limit and scheduled system actions such as making a Permit effective (see Appendix A for a list of Actions which invoke the Expected DMR Schedule program).

This program will call or invoke the DMR Data Processing Update and Validation processes, which may in turn call or invoke the EA RNC process.

1.4 ASSUMPTIONS

- System will generate the entire expected DMR schedule for the Permit.
- Users are not able to edit the Permit Effective and Expiration dates once they have been saved.
- Users are not able to change the Permit Type once a Permit is created.
- At administrative continuance/expiration, the system will generate a year's worth of Expected DMR Schedule records.

⁶ Note if DMR Forms with MPEDs greater than the Termination Date and received DMR data exist, the Termination transaction will be rejected before the Expected DMR Schedule Program is called.

2. EXPECTED DMR SCHEDULE PROCESSING

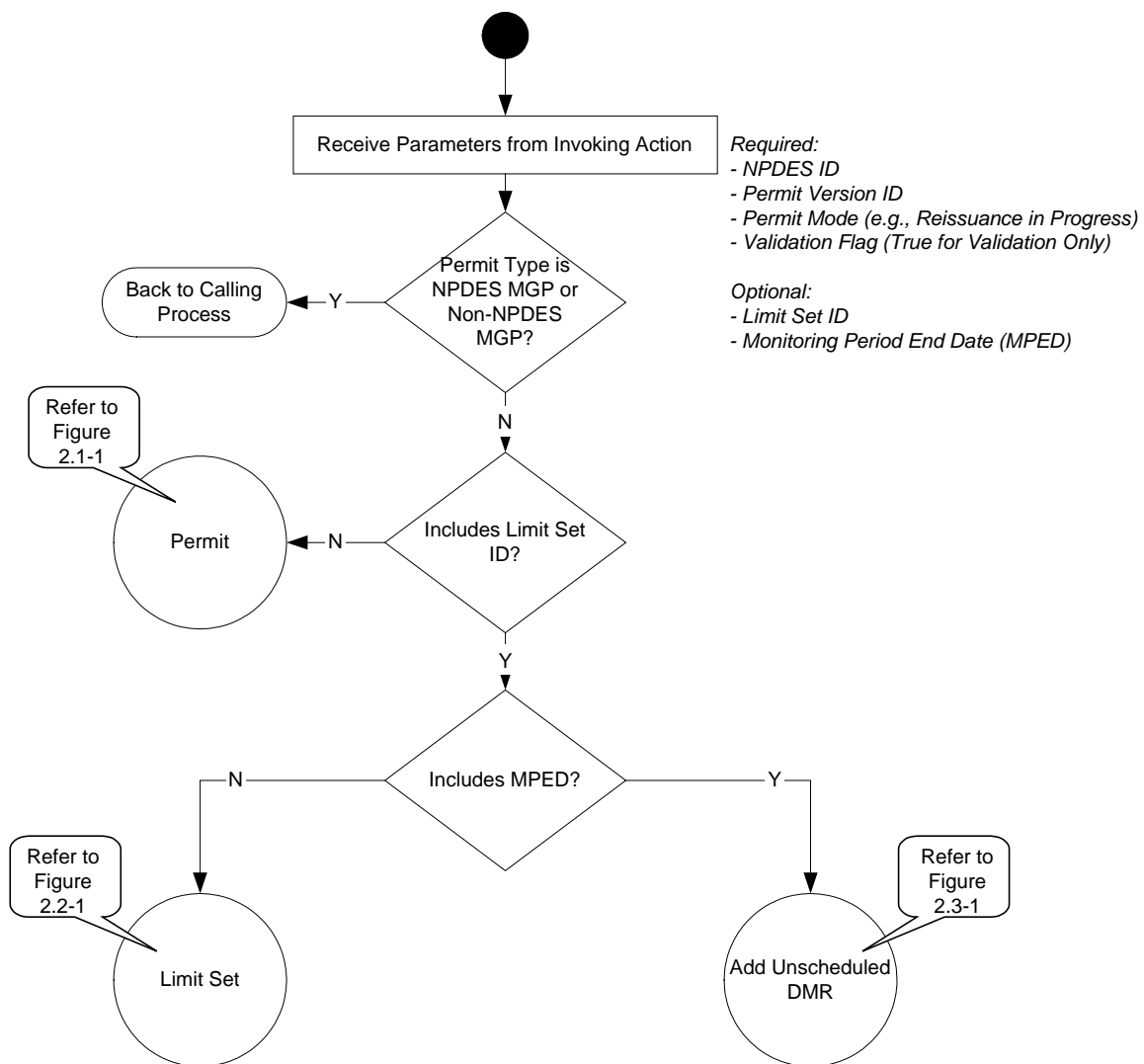
The Expected DMR Schedule program may be asked to update the Expected DMR Schedule for:

- An entire Permit
- A single Limit Set
- The addition of an Unscheduled DMR.

When the system first receives the parameters from the invoking action, it will determine which data need to be processed and initiate the processes for each type of data.

Figure 2-1 shows the invocation flow of the Expected DMR Schedule Processing program.

Figure 2-1. Flow of Expected DMR Schedule Invocation



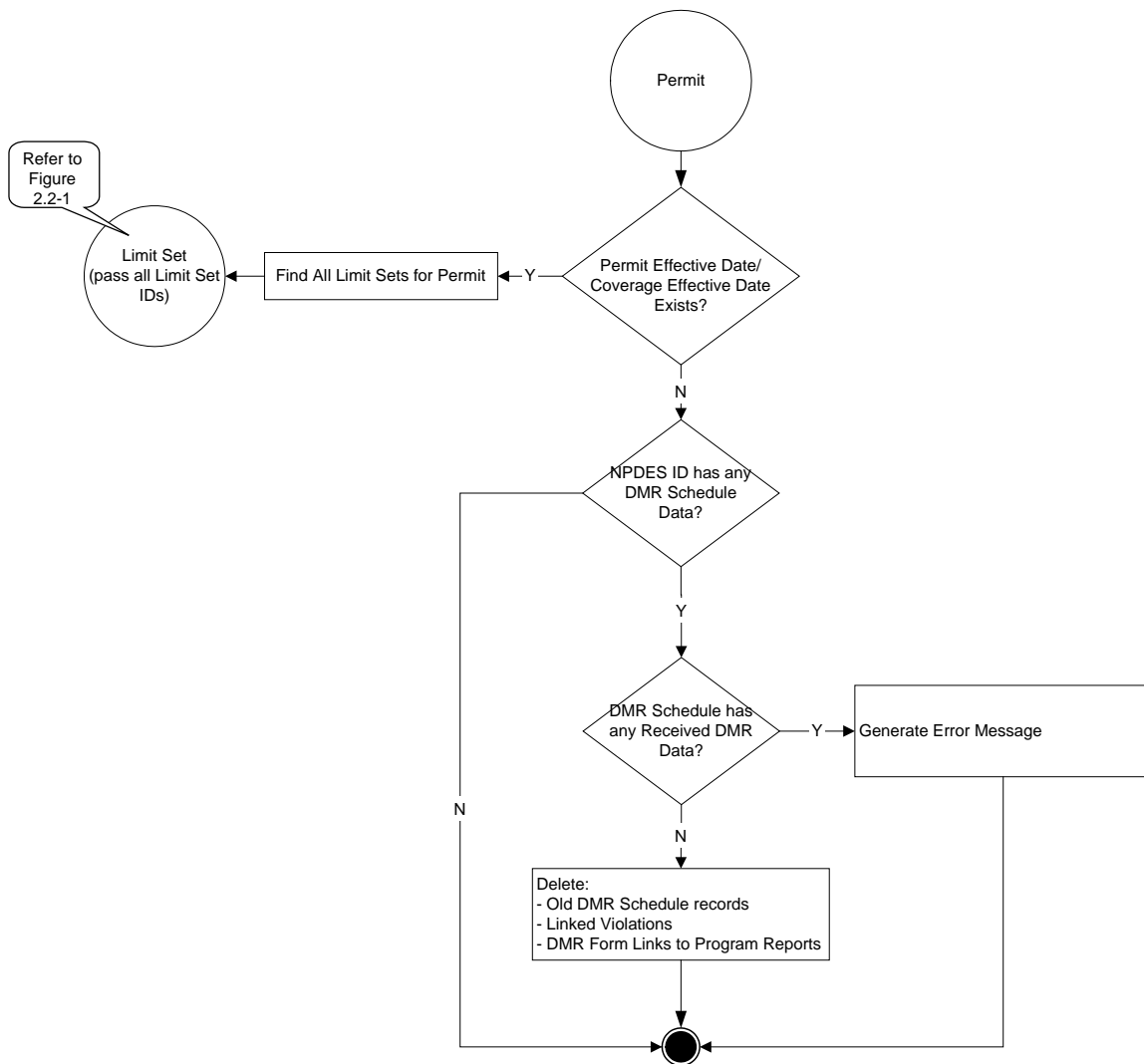
This process begins with the receipt of data from the invoking action. The invoking action,

whether it be a user-triggered action (e.g., Edit Key Limit Dates) or a system-triggered action (e.g., Nightly Processing makes a Pending Permit Effective) will provide this program with information identifying whether to run the process for an entire Permit, a single Limit Set, or to add an Unscheduled DMR. It will also let the system know for which version of the Permit the process should be performed and whether it is for validation purposes or for execution, including whether it is for an Edit or for finishing a Reissuance in Progress. If the Permit is Unpermitted or a Master General Permit, the program will immediately end, as these Permit Types can never have an Expected DMR Schedule.

2.1 PERMIT

Figure 2.1-1 shows the overall flow of the Permit process.

Figure 2.1-1. Flow of Permit Process



If the invoking action submits an entire Permit, the system will first check to see whether the

Effective Date for the Permit is entered. If not, this means the Permit Status has been changed to Pending or Not Needed, and this process will delete any old DMR Schedule data for all the Limit Sets for this Permit. If the old DMR Schedule has any received DMR data, this process will generate an error, and the program will end for this Permit.

If the Effective Date has been entered, the system will find all the Limit Sets for the Permit and send them to the Limit Set process (see Section 2.2). The Limit Set process will not return any data to the Permit process, and the Permit process will be complete.

2.2 LIMIT SET

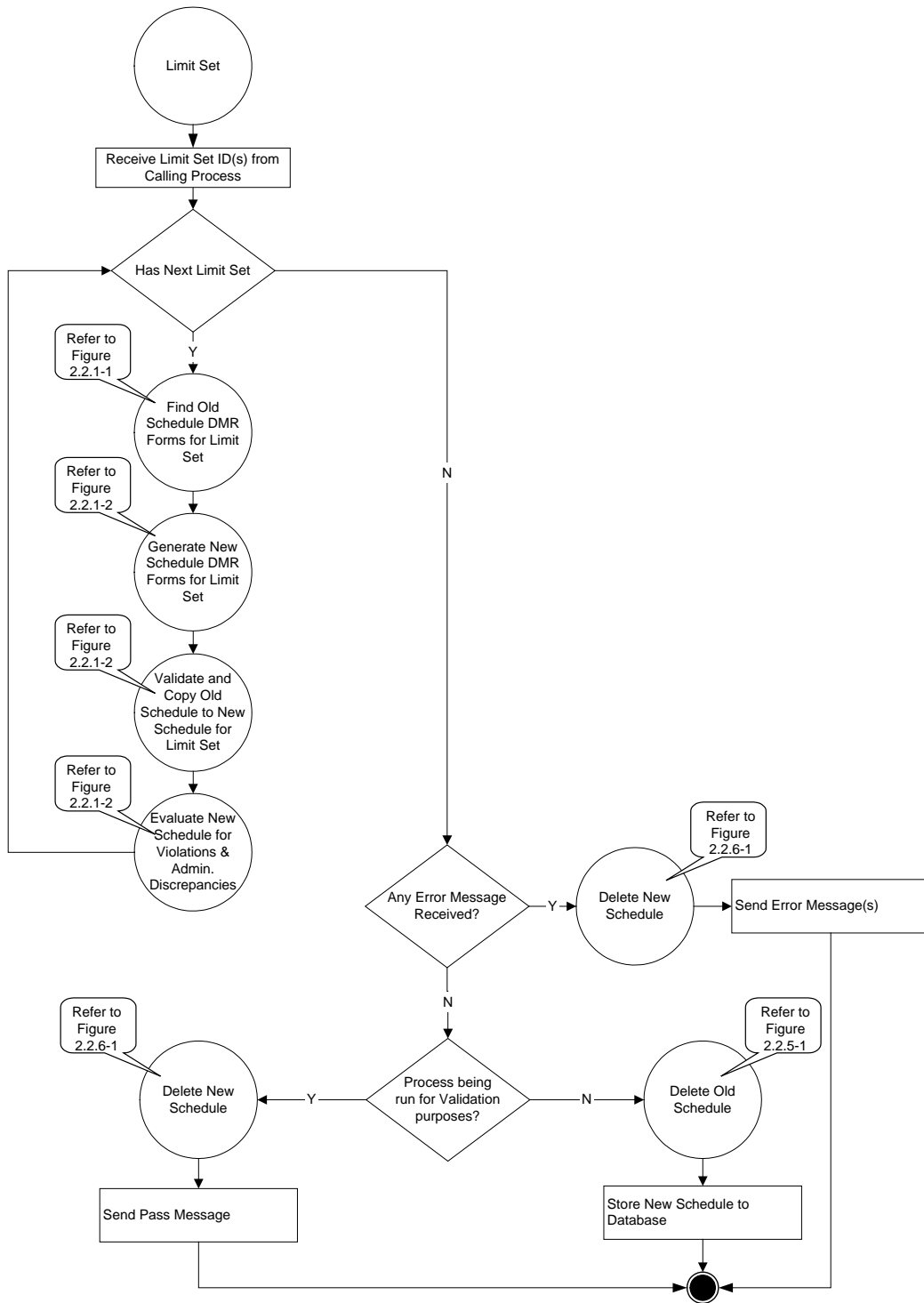
Table 2.2-1 lists for the reader's convenience, some common acronyms used in the flow charts for updating the Expected DMR Schedule during the Limit Set process.

Table 2.2-1. Common Acronyms in the Limit Set Flow Charts

Term	Definition
MPED	Monitoring Period End Date
IMPED	Initial Monitoring Period End Date
IMD	Initial Monitoring Date
MIMD	Modification Initial Monitoring Date
IDDD	Initial DMR Due Date
MIDDD	Modification Initial DMR Due Date
SU Counter	Submission Unit Counter

Figure 2.2-1 shows the overall flow of the Limit Set process.

Figure 2.2-1. Flow of Limit Set Process



When the program processes each Limit Set, it will perform the following functions:

- Find Old Schedule DMR Forms for Limit Set (see Section 2.2.1)
- Generate New Schedule DMR Forms for Limit Set (see Section 2.2.2)
- Validate and Copy Old Schedule to New Schedule for Limit Set (see Section 2.2.3)
- Evaluate New Schedule for Violations and Administrative Discrepancies (see Section 2.2.4).

Once the system has completed processing all the Limit Sets received from either the invocation process or the Permit process, it will determine whether any error messages have been received for any Limit Set. During the internal processes, if any errors are received, the system will register the error for the particular Limit Set and stop working on that Limit Set. It will then return to this process and see if it has a next Limit Set and continue from there.

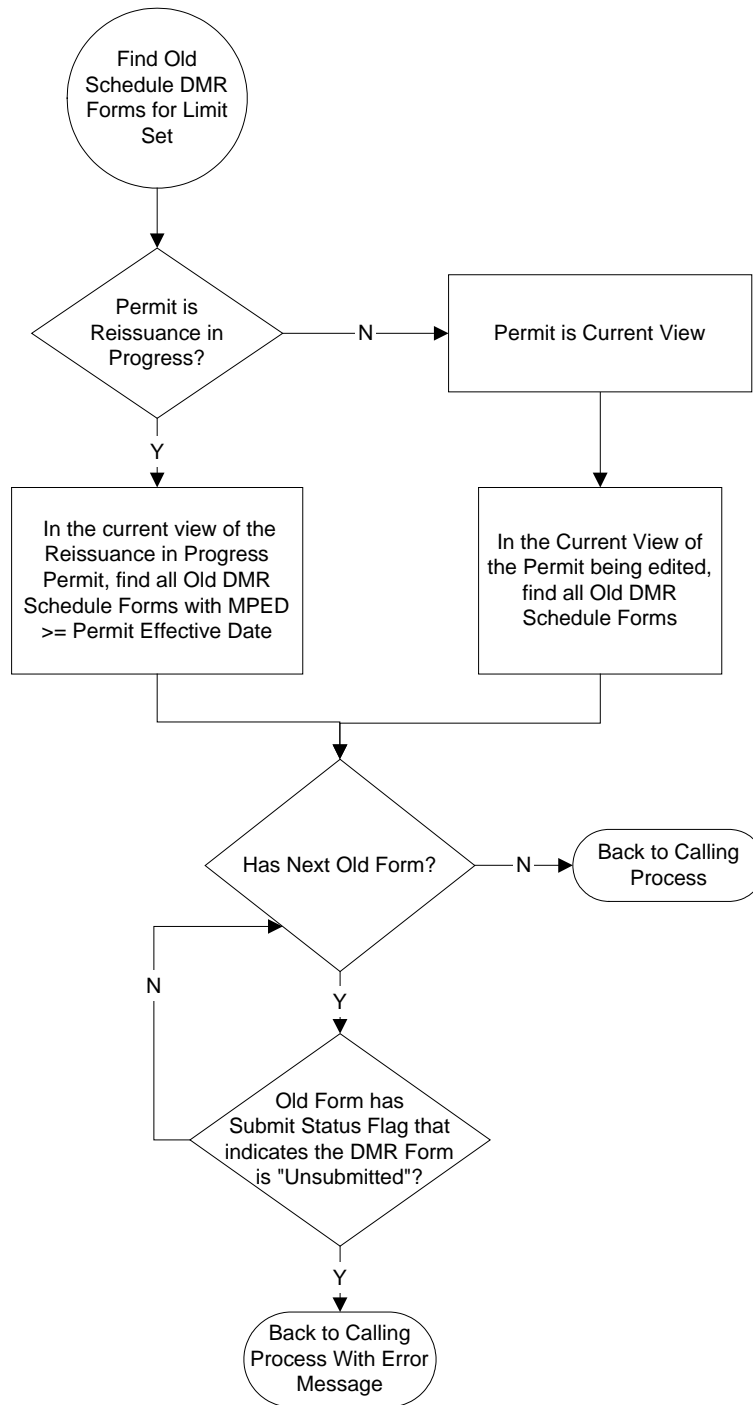
Once all the Limit Sets have been processed, if any errors have been generated, the system will delete any New Schedules that have been created and return an error message.

If no errors have been received, the system will delete the Old Schedule(s) that were identified in the first step of the process for each Limit Set and save the New Schedule(s) to the database if the process was called for execution purposes. If the process was called for validation purposes, the system will delete the New Schedules and send a pass message to the calling process.

2.2.1 Find Old DMR Schedule DMR Forms for Limit Set

Figure 2.2.1-1 shows the overall flow of the Find Old DMR Schedule DMR Forms for Limit Set process.

Figure 2.2.1-1. Find Old Schedule DMR Forms for Limit Set



This process identifies the Old DMR Schedule records for the Limit Set being updated.

Depending on the type of action being performed and on the version of the permit currently being updated, different Old DMR Schedule records are needed:

- **Reissuance in Progress:** If the user is updating a Reissuance in Progress, there is no Old Schedule for that view of the Permit, so the Old DMR Schedule records are pulled from the current view of the Permit
- **Edit Mode:** If the user is editing a Permit that has not been reissued (i.e., it's the first version of the Permit), the Old DMR Schedule records are pulled from the current view of the Permit, which is currently being edited.

If any of the Old Forms are Unsubmitted, an error will be generated.

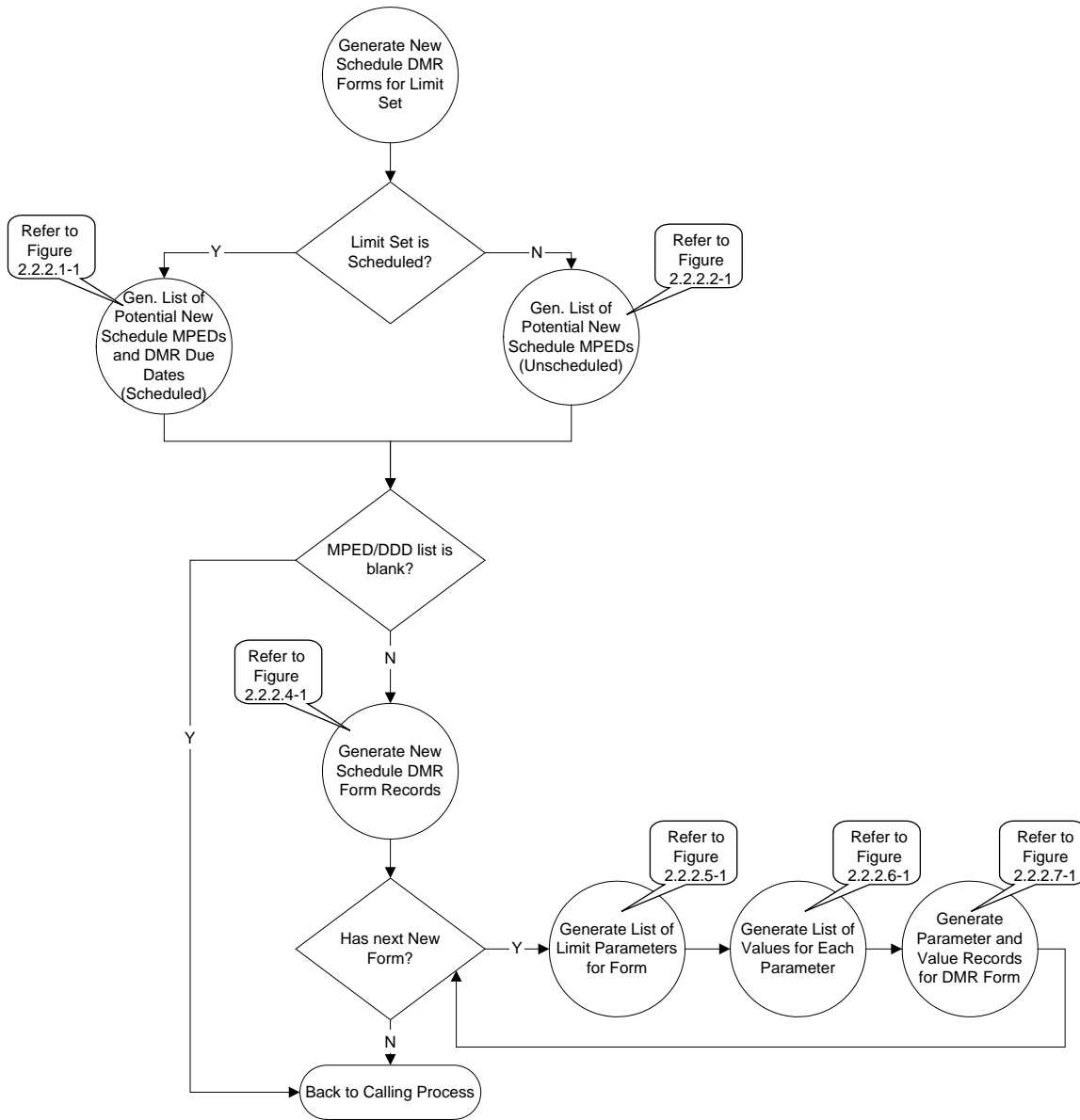
The records found in this step will be used by later processes for several tasks:

- Will use the MPEDs of the Old Schedule to generate the New Schedule for Unscheduled Limit Sets (see Section 2.2.2.2)
- Will use the Old Schedule data to compare to the New Schedule to determine whether business rules are violated (see Section 2.2.3)
- Will use the Old Schedule data to populate the New Schedule with user-entered data and Violations (see Section 2.2.3).

2.2.2 Generate New Schedule DMR Forms for Limit Set

Figure 2.2.2-1 shows the Generate New Schedule DMR Forms for Limit Set process.

Figure 2.2.2-1. Generate New Schedule DMR Forms for Limit Set



In this process, the system generates the potential Monitoring Period End Dates and DMR Due Dates (if applicable) for the New Schedule for the Limit Set. It follows a different generation process depending on whether the Limit Set is Scheduled (see Section 2.2.2.1) or Unscheduled (see Section 2.2.2.2). If no MPED/DDD are generated for the New Schedule for the Limit Set, the system will return to the main Limit Set process (see Figure 2.2-1) with no New Schedule generated.

If a list of potential MPEDs/DDD for the Limit Set has been generated, the system generates the New Schedule DMR Forms (see Section 2.2.2.4) and then attempts to populate each Form with Parameters (see Section 2.2.2.5) and Values (see Section 2.2.2.6). Once each New Schedule DMR Form has been created and populated, this process returns to the main Limit Set process

(see Figure 2.2-1).

2.2.2.1 Generate List of Potential New Schedule MPEDs and DMR Due Dates (Scheduled)

Figure 2.2.2.1-1 shows the Generate List of Potential New Schedule MPEDs and DMR Due Dates (Scheduled) process.

Figure 2.2.2.1-1. Generate List of Potential New Schedule MPEDs and DMR Due Dates (Scheduled)

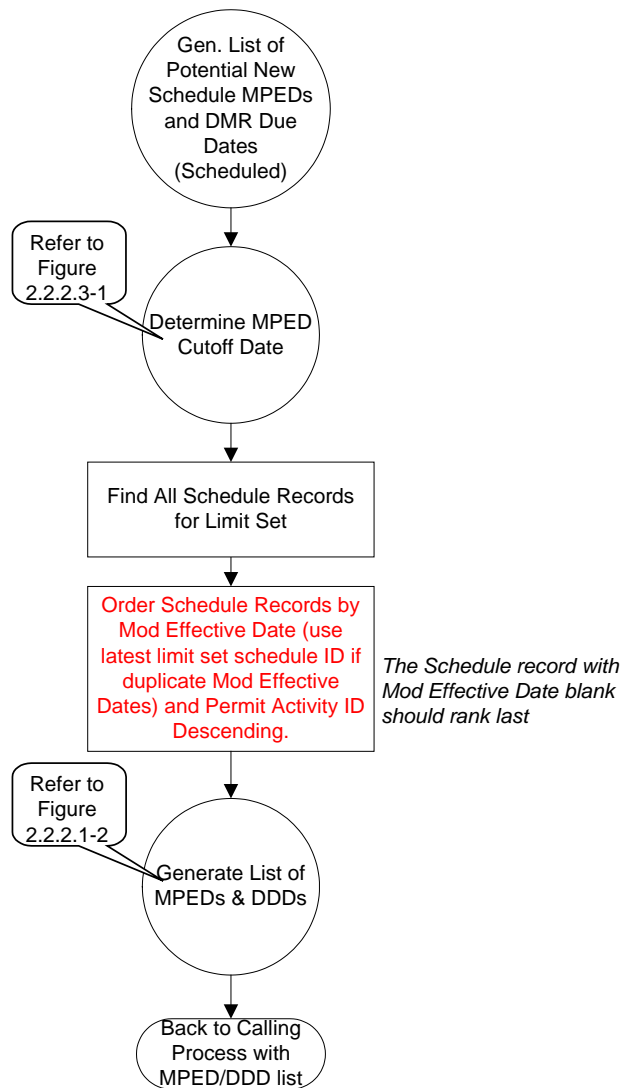
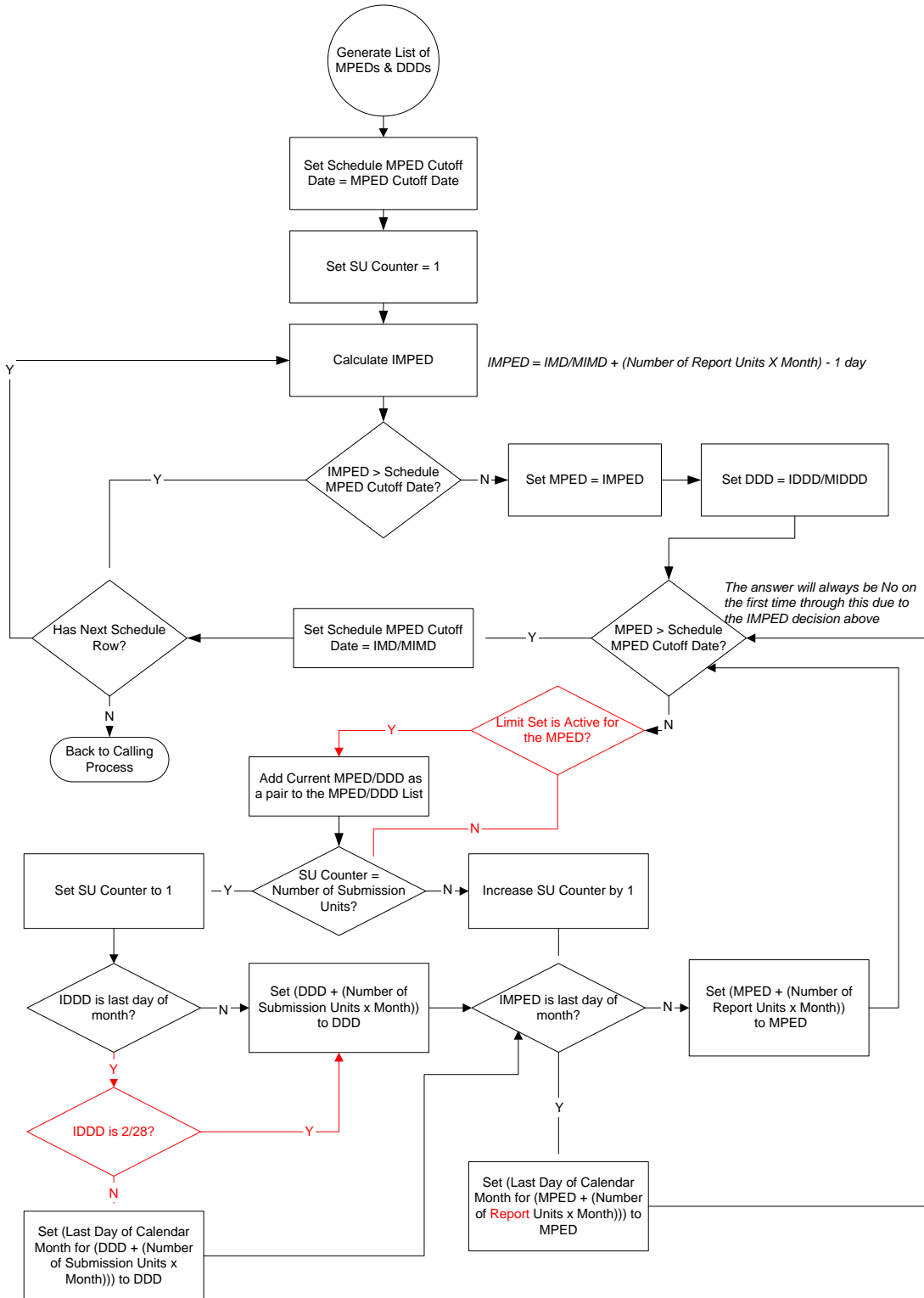


Figure 2.2.2.1-2. Generate List of Potential New Schedule MPEDs and DMR Due Dates (Scheduled) (Continued)



This process will generate all the MPEDs and DMR Due Dates for the New Schedule up to the MPED Cutoff Date (see Section 2.2.2.3) for DMRs for a Scheduled Limit Set. This process uses the data in each set of schedule data (i.e., the base Limit Set and any modifications to the Limit Set) to calculate these dates.

After determining the MPED Cutoff Date, the system will find all the schedule records for the Limit Set and order them in DESCENDING order based on Modification Effective Date. If there are duplicate Mod Effective Dates for a Limit Set for a Permit, the system will use the latest Limit Set Schedule ID. The system will then generate the MPEDs and DDDs for the Limit Set by working through each schedule row, starting with the latest row.

First, the system will set the local variable Schedule Cutoff Date to the value of the MPED Cutoff Date and the local variable Submission Unit (SU) Counter to 1. It will then calculate the IMPED for the row of data and determine whether that date is greater than the Schedule Cutoff Date. If it is greater than the Schedule Cutoff Date, the system will not generate any MPED/DDD pairs for this row of schedule data and will look for a next row of data. If no next row of data is found, this process will return a blank list of MPEDs/DDDs to the Generate New Schedule DMR Forms for Limit Set process (see Figure 2.2.2-1).

If the IMPED for the row of data is less than or equal to the Schedule Cutoff Date, the system will set the local variable MPED with the value of the IMPED and set the local variable DDD with the value of the IDD/MIDDD from the Limit Set data. After double checking that the MPED is not greater than the Schedule MPED Cutoff Date, the system will add the current MPED/DDD pair to the MPED/DDD list.

After adding the pair to the list, the system will check to see if the SU Counter equals the Number of Submission Units for the schedule row. If it does, the system will reset the counter to 1 and generate the next DDD and MPED, determining whether each should be an exact date or the last day of a month. The system will then check that the new MPED does not exceed the Schedule Cutoff Date and will add the current MPED/DDD pair to the list.

If the SU Counter does not equal the Number of Submission Units, the system will increase the SU Counter by 1 and use the existing DDD. It will then generate the next MPED, determining whether the MPED should be an exact date or the last day of a month. The system will then check that the new MPED does not exceed the Schedule Cutoff Date and will add the current MPED/DDD pair to the list.

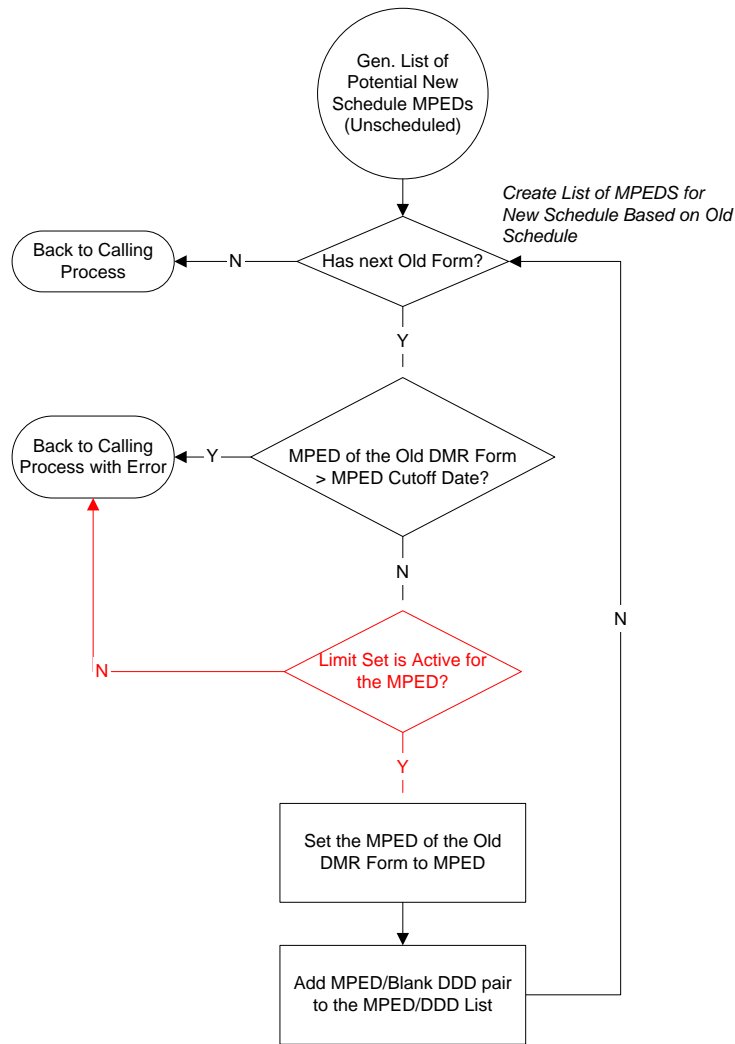
If the system determines that the MPED is greater than the Schedule MPED Cutoff Date, that means that no more MPED/DDD pairs can be generated for the current row of schedule data. The system will update the Schedule MPED Cutoff Date to the IMD/MIMD of the current row of schedule data, so that the next row of data will end before the current row begins.

The system will then check to see if there are any more rows of schedule data for the Limit Set. If not, the system will return the MPED/DDD list to the calling process. If there are more rows of schedule data for the Limit Set, the system will begin at the start of the process by calculating the IMPED for the next row of schedule data.

2.2.2.2 Generate List of Potential New Schedule MPEDs (Unscheduled)

Figure 2.2.2-1 shows the Generate List of Potential New Schedule MPEDs (Unscheduled) process.

Figure 2.2.2.2-1. Generate List of Potential New Schedule MPEDs (Unscheduled)



This process will generate all the MPEDs for the New Schedule up to the MPED Cutoff Date (see Section 2.2.2.3) for DMRs for an Unscheduled Limit Set.

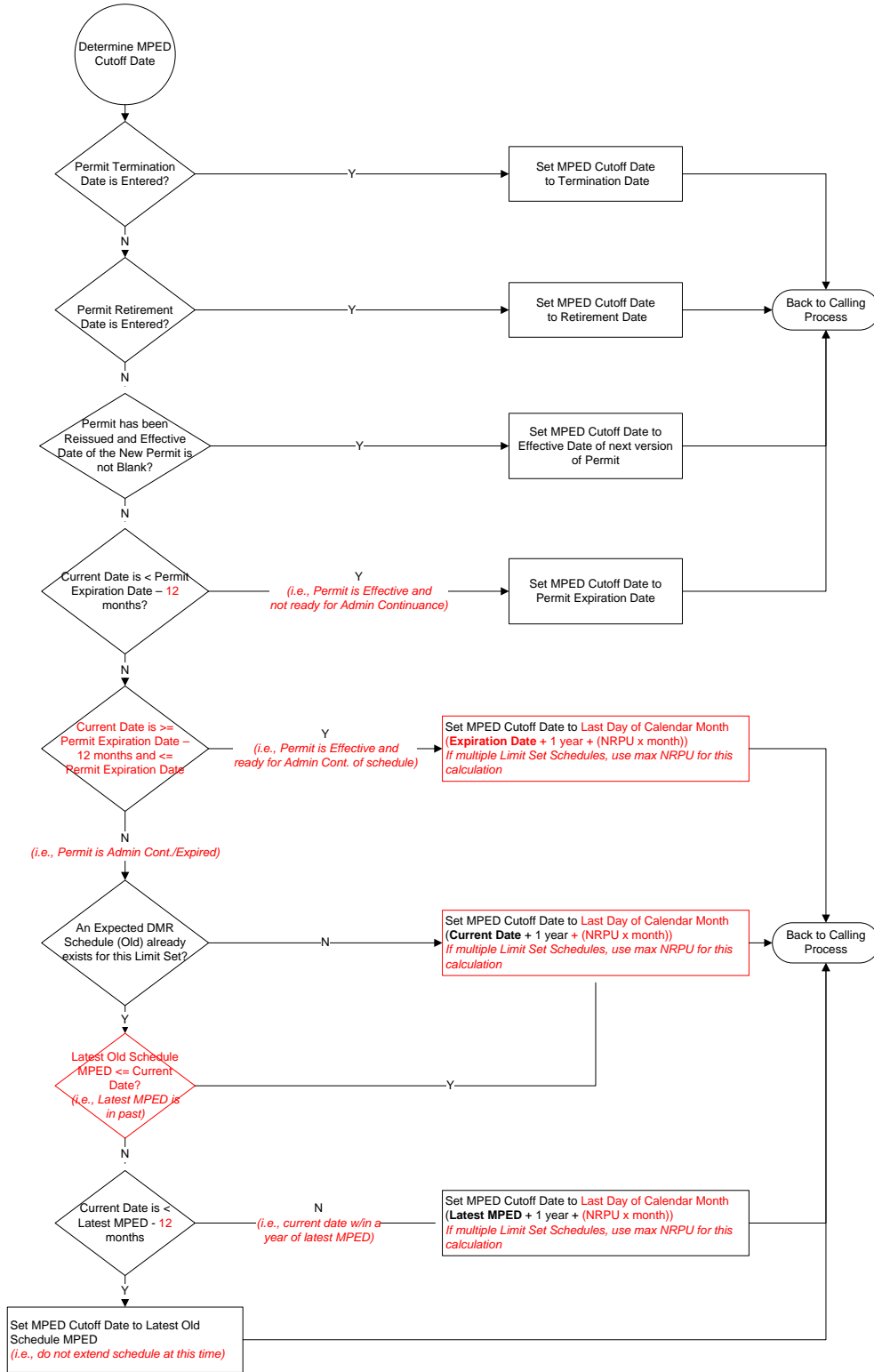
If the user is changing an existing Unscheduled Limit Set, the system pulls the Old Schedule for this Limit Set and uses its MPEDs as the basis of the New Schedule MPEDs, validating that all

the Old Schedule MPEDs are less than the MPED Cutoff Date.

2.2.2.3 Determine MPED Cutoff Date

Figure 2.2.2.3-1 shows the Determine MPED Cutoff Date process.

Figure 2.2.2.3-1. Determine MPED Cutoff Date



This process calculates the latest date possible for Monitoring Period End Dates for DMR Forms.

It also handles administrative extension of the Expected DMR Schedule by setting the MPED Cutoff Date such that it will allow for a year's worth of MPEDs once the Current Date is greater than the latest MPED in the Old Schedule found in the previous step. This process is used by both the Scheduled (see Section 2.2.2.1) and Unscheduled (see Section 2.2.2.2) processes for generating MPEDs and DDDs. In addition, the Add Unscheduled DMR process (see section 2.3) uses this process.

The rules may be summarized as follows:

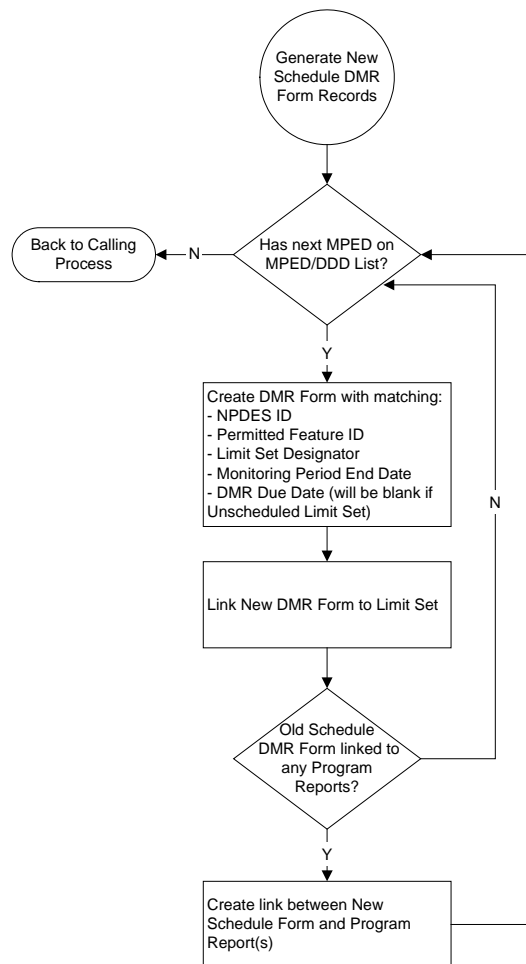
- If the Permit is Terminated, it may no longer be reissued/retired, modified, or administratively continued. Thus, if a Permit Termination Date is present, no DMR Forms with MPEDs greater than the Termination Date will be generated by the system. If DMR Forms with MPEDs greater than the Termination Date exist when the user terminates a Permit, the DMR Forms will be deleted by the system.
- If a Retirement Date has been entered, the MPED Cutoff Date is set to the Retirement Date.
- If the permit has been reissued and the Effective Date of the new permit is populated, the MPED Cutoff Date is set to the Permit Effective Date of the next version of the permit.
- If the current date is less than within 12 months of the permit Expiration Date (not ready for Administrative Continuance), set the MPED Cutoff Date to the Permit Expiration Date.
- If the current date is within 12 months of the permit Expiration Date (ready for Administrative Continuance), set the MPED Cutoff Date to the last day of the month of the PERMIT EXPIRATION DATE plus 1 year plus (the number of report units times months). If multiple limit set schedules exist, use the maximum number of reports units.
- If the current date is greater than the permit Expiration Date (permit is Expired or within Administrative Continuance) and a schedule DOES NOT ALREADY EXIST for the Limit Set (it is a new Limit Set that is being created), set the MPED Cutoff Date to the last day of the month of the CURRENT DATE plus 1 year plus (the number of report units times months). If multiple limit set schedules exist, use the maximum number of reports units.
- If the current date is past the permit Expiration Date (permit is expired or within Administrative Continuance) and a schedule DOES EXIST for the Limit Set (the limit set already exists and is being edited), and the latest MPED from the existing schedule is in the past, set the MPED Cutoff Date to the last day of the month of the CURRENT DATE plus 1 year plus (the number of report units times months). If multiple limit set schedules exist, use the maximum number of reports units.
- If the current date is past the permit Expiration Date (permit is expired or within Administrative Continuance) and a schedule DOES EXIST for the Limit Set (the limit set already exists and is just being edited), and the current date is within one year of the latest MPED of the existing schedule, set the MPED Cutoff Date to the last day of the month of the LATEST MPED of the existing schedule, plus 1 year plus (the number of report units times months). If multiple limit set schedules exist, use the maximum number of reports units.

- If the current date is past the permit Expiration Date (permit is expired or within Administrative Continuance) and a schedule DOES EXIST for the Limit Set (the limit set already exists and is just being edited), and the current date is not within one year of the latest MPED of the existing schedule, set the MPED Cutoff Date to the latest existing schedule MPED.

2.2.2.4 Generate New Schedule DMR Form Records

Figure 2.2.2.4-1 shows the Generate New Schedule DMR Form Records process.

Figure 2.2.2.4-1. Generate New Schedule DMR Form Records

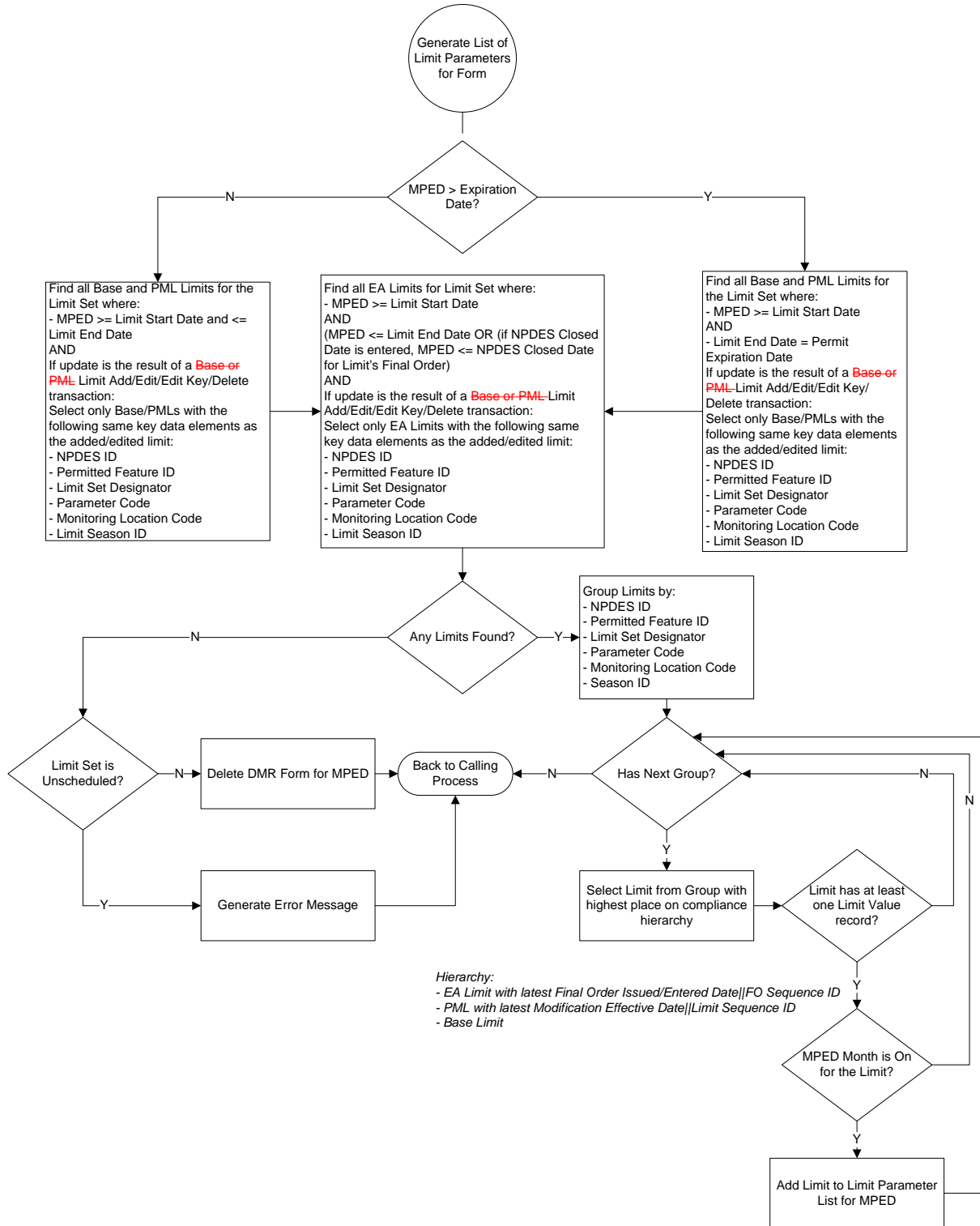


Once the system has generated the list of New Schedule MPEDs for either a Scheduled or Unscheduled Limit Set, the system will create the actual DMR Form records for the New Schedule and will link them to the Limit Set record originally passed by the invoking action. If there is a matching Old Schedule Form (i.e., has same NPDES ID, Permitted Feature ID, Limit Set Designator, and Monitoring Period End Date) that is linked to any Program Reports, the system will link the New Schedule Form to those Reports.

2.2.2.5 Generate List of Limit Parameters for Form

Figure 2.2.2.5-1 shows the Generate List of Limit Parameters for Form process.

Figure 2.2.2.5-1. Generate List of Limit Parameters for Form



Once the program has created the DMR Form records for the New Schedule, it will process each

Form individually to create a list of the DMR Parameter records that apply to that Form. First, the system will identify all the candidate Limit segments to apply to the Form based on a combination of the MPED, kind of Limit (i.e., Base, PML, or EA), Limit Start and End Dates, Change of Limit Status, NPDES Closed Date, and whether the Permit has expired or been administratively continued. If the Limit in effect for an MPED has no Limit Value Records or the Month of the MPED is not on for the Limit, that parameter will not be added to that DMR Form.

Most operations that trigger the Expected DMR Schedule to run (e.g., Limit Set Edit, Permit Reissuance) require all the parameters on the Limit Set to be evaluated. However, if only one Limit Parameter is affected (e.g., Limit Add, Edit, Edit Key, Delete transaction), the system need only update the schedule data for the affected parameter (defined by the NPDES ID, Permitted Feature Identifier, Limit Set Designator, Parameter Code, Monitoring Location Code, Limit Season ID).

This optimization generally is implemented by having the system identify Expected DMR Schedule updates that are triggered by a Limit-level transaction and capturing the key data elements for the updated Limit segment's parameter. When determining which limits may be eligible for an MPED, only those Limits that have dates that overlap the MPED AND that are from the same parameter as the initiating Limit are selected. The remaining parameters are left untouched on the schedule.

Once the candidate Limits are identified, the program will group the Limits by Parameter (i.e., NPDES ID, Permitted Feature ID, Limit Set Designator, Parameter Code, Monitoring Location Code, Season ID), to determine if multiple segments for a Limit Parameter could apply to the MPED. If multiple Limit segments apply, the program will select the one that ranks the highest according to the compliance hierarchy described in Section 1.2, Factors.

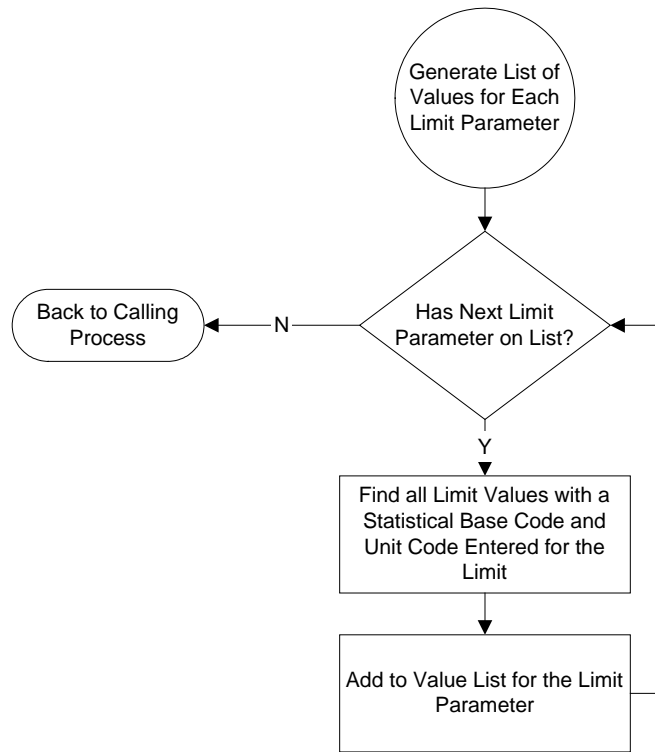
If no Limits are found that apply to a Form:

- Schedule Limit Set: the DMR Form will be deleted
- Unscheduled Limit Set: the system will generate an error message.

2.2.2.6 Generate List of Values for Each Limit Parameter

Figure 2.2.2.6-1 shows the Generate List of Values for Each Limit Parameter process.

Figure 2.2.2.6-1. Generate List of Values for Each Limit Parameter

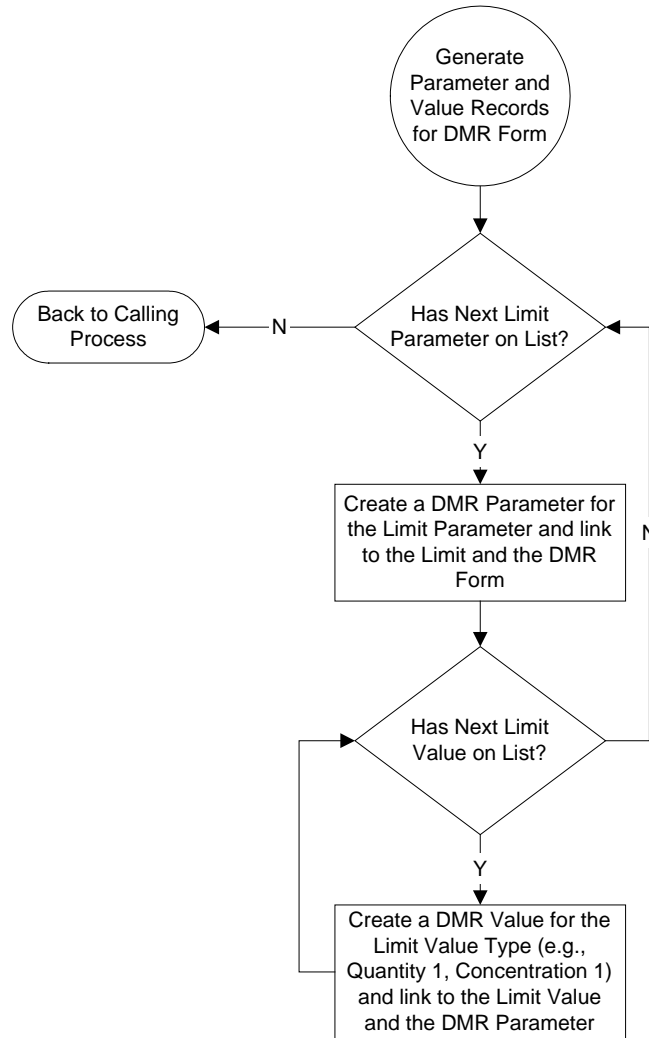


Once the DMR Parameters have been identified, the system will generate a list of DMR Values for each Parameter.

2.2.2.7 Generate Parameter and Value Records for DMR Form

Figure 2.2.7-1 shows the Generate Parameter and Value Records for DMR Form process.

Figure 2.2.2.7-1. Generate Parameter and Value Records for DMR Form

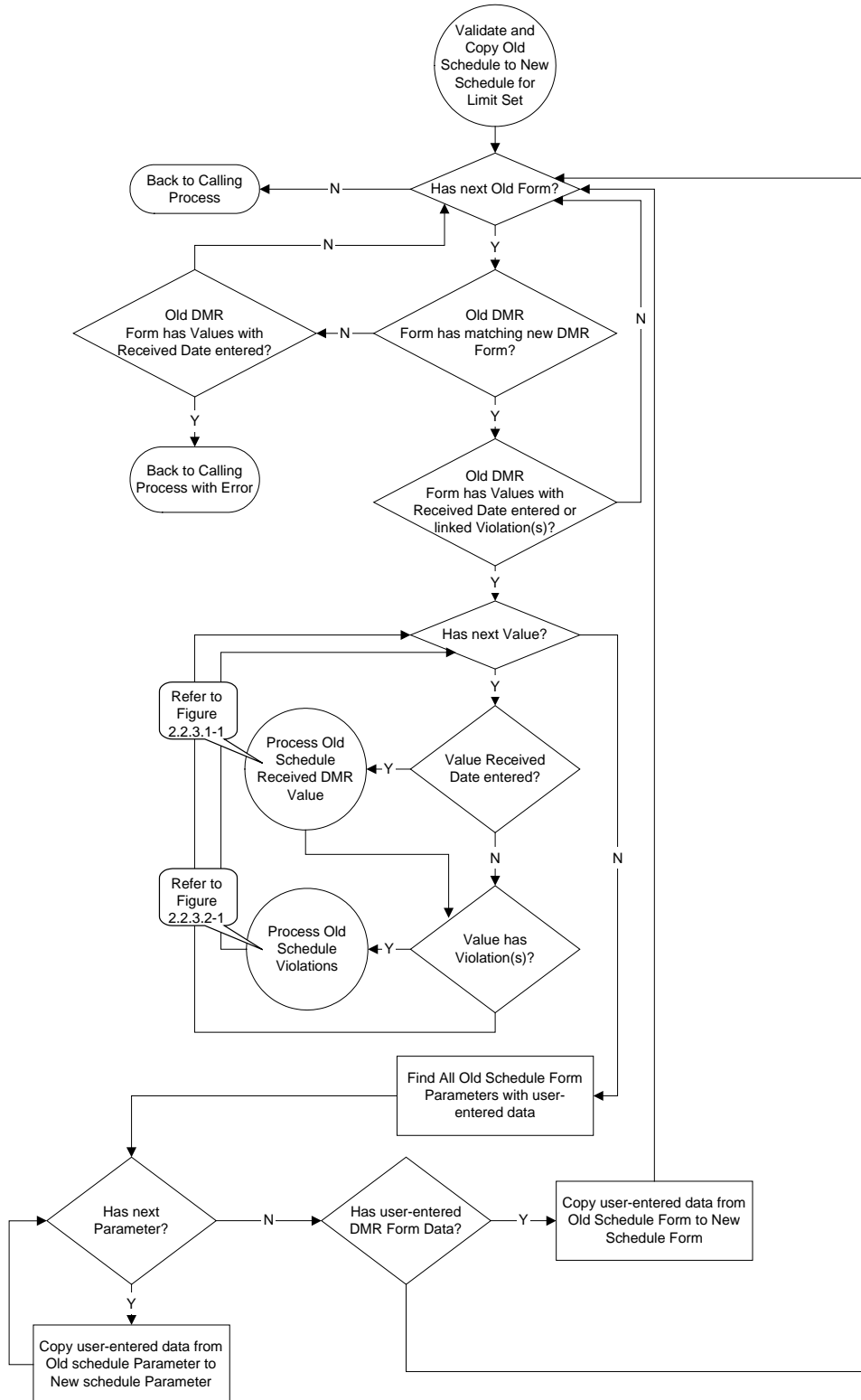


Once the list of DMR Parameters and DMR Values has been completed, the system will generate the DMR Parameter and DMR records for the New Schedule DMR Forms. These will be linked to their respective Limit Parameter and Limit Value records.

2.2.3 Validate and Copy Old Schedule to New Schedule for Limit Set

Figure 2.2.3-1 shows the Validate and Copy Old Schedule to New Schedule for Limit Set process.

Figure 2.2.3-1. Validate and Copy Old Schedule to New Schedule for Limit Set



Once the Old Schedule DMR Forms have been identified and the New Schedule Forms have been created, the system can validate whether the creation of the New Schedule will violate any business rules. The system will check for each Old Schedule DMR Form whether there is a corresponding New Schedule DMR Form (i.e., the New Schedule has a DMR Form with matching NPDES ID, Permitted Feature ID, Limit Set Designator, and MPED).

For each Old Schedule Form with a match on the New Schedule, the system will run through the DMR Values on the Old Schedule to identify any that have received DMR data entered. If so, the system will call the Process Old Schedule Received DMR Value (see Section 2.2.3.1) and Process Old Schedule Violations (see Section 2.2.3.2) processes to evaluate whether these DMR Values from the Old Form will exist on the New Form and with the same Violations.

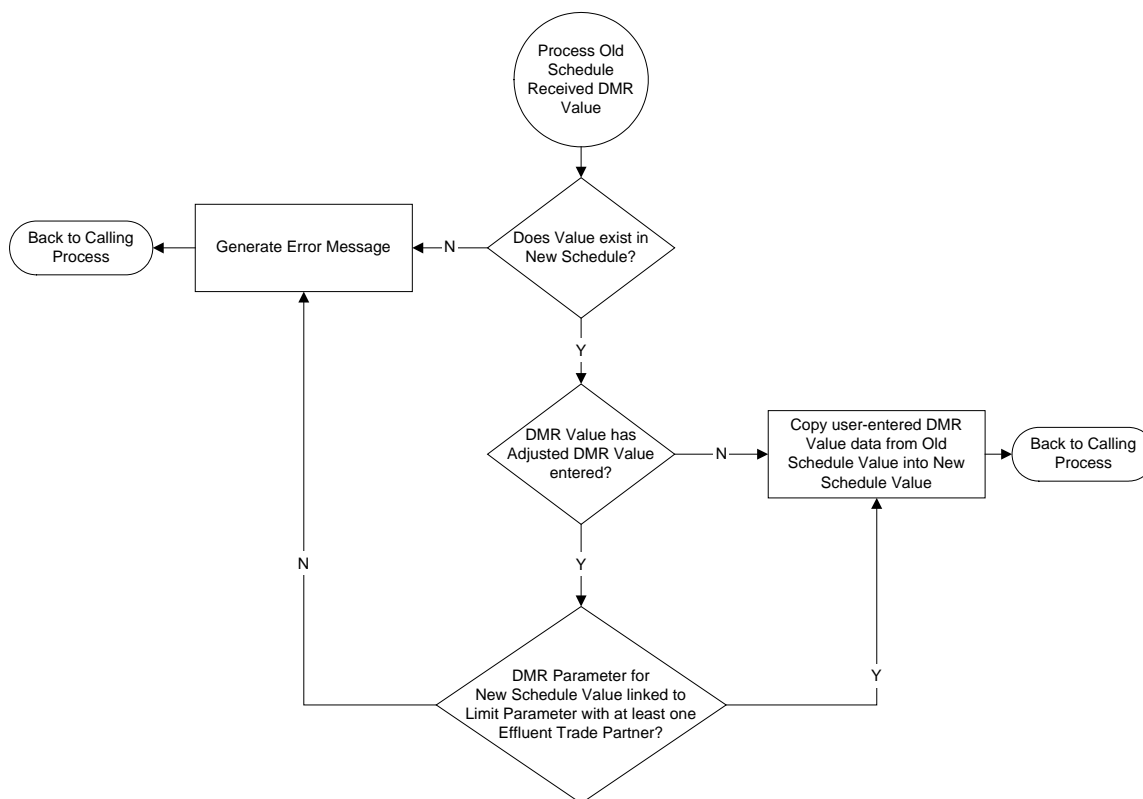
Once the system has successfully copied and validated all the applicable DMR Value records from the Old Form to the New Form, it will copy any user-entered data from the Old DMR Form (e.g., signatory data) and Old DMR Parameters (e.g., Reported Frequency of Analysis) to the New Form.

If an Old Schedule Form does not have a matching New Schedule Form, it means the Old Schedule Form will be deleted, so the system will validate that the Old Schedule Form does not have any received DMR data.

2.2.3.1 Process Old Schedule Received DMR Value

Figure 2.2.3.1-1 shows the Process Old Schedule Received DMR Value process.

Figure 2.2.3.1-1. Process Old Schedule Received DMR Value



When the Old Schedule DMR Form has a DMR Value with received DMR data entered (i.e., the DMR Value Received Date is not blank), this process will validate that a DMR Value with the following matching data elements exists on the New Schedule:

- NPDES ID
- Permitted Feature ID
- Limit Set Designator
- Monitoring Period End Date
- Parameter Code
- Monitoring Location Code
- Value Type.

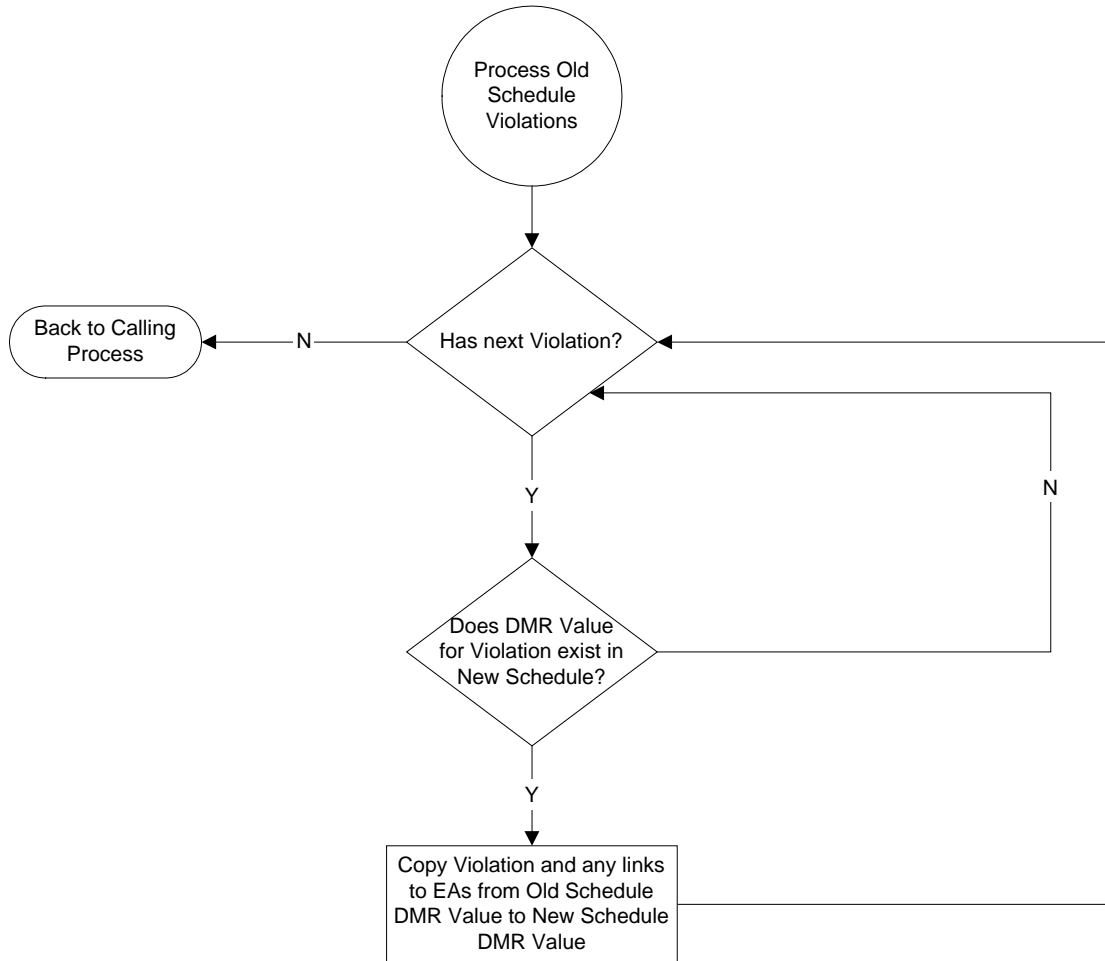
If a matching DMR Value does not exist, the system will generate an error.

If a received DMR Value on the Old Schedule has an Adjusted DMR Value entered, this process will validate that the DMR Parameter for the DMR Value is linked to a Limit with at least one Effluent Trade Partner.

2.2.3.2 Process Old Schedule Violations

Figure 2.2.3.2-1 shows the Process Old Schedule Violations process.

Figure 2.2.3.2-1. Process Old Schedule Violations

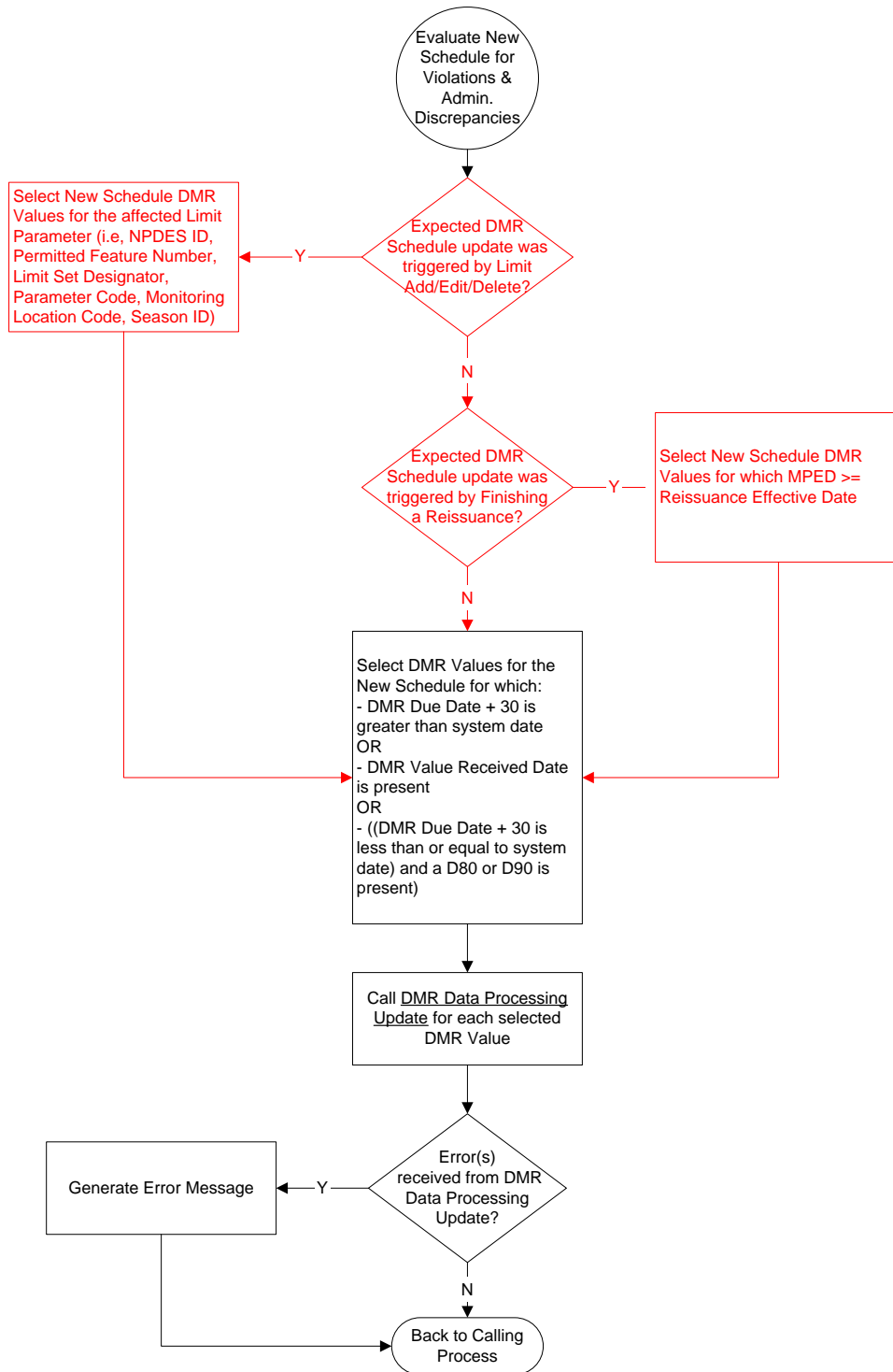


If a Violations exist for an Old Schedule Value, and a matching DMR Value exists on the New Schedule, the system will copy those Violations to the New Schedule Value to ensure that user-entered RNC data and Effluent RNC entered RNC data are not overwritten. .

2.2.4 Evaluate New Schedule for Violations and Administrative Discrepancies

Figure 2.2.4-1 shows the Evaluate New Schedule for Violations and Administrative Discrepancies process.

Figure 2.2.4-1. Evaluate New Schedule for Violations and Administrative Discrepancies



Once the system has fully processed the Old Schedule for the Limit Set in the previous step, it will evaluate the New Schedule for Violations and Administrative Discrepancies by calling the DMR Data Processing Update. To minimize the processing time needed, the system will narrow

the volume of DMR Values to be evaluated according to the following criteria:

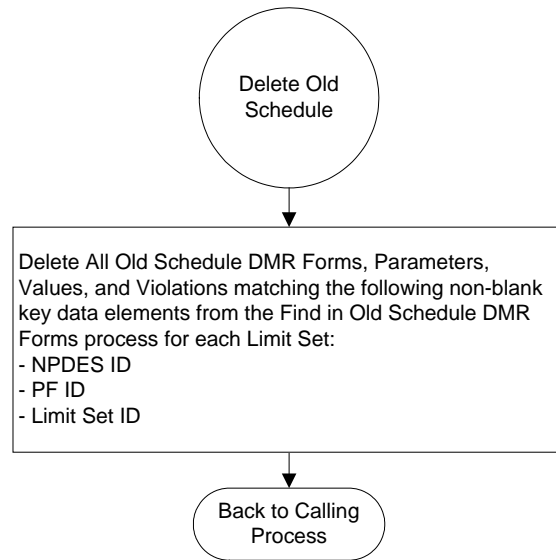
- If the Expected DMR Schedule update was triggered by a Limit Add/Edit/Delete transaction, only the DMR Values associated with that parameter will be potentially eligible for DMR Data Processing evaluation. A parameter is defined as a group of one or more limits that share the following key data elements:
 - NPDES ID
 - Permitted Feature Number
 - Limit Set Designator
 - Parameter Code
 - Monitoring Location Code
 - Season ID.
- If the Expected DMR Schedule update was triggered by finishing a Reissuance, only the DMR Values that have a Monitoring Period End Date greater than or equal to the Reissuance Effective Date will be potentially eligible for DMR Data Processing Evaluation.
- All DMR Values associated with the New Schedule that pass through the above filters will be evaluated only if they meet the following criteria:
 - May need to have DMR Non-Receipt Violations updated or deleted
 - May need to have Effluent Violations generated, updated, or deleted
 - May need to have Administrative Discrepancies generated or deleted.

If any errors are generated during this process, an error message will be generated.

2.2.5 Delete Old Schedule

Figure 2.2.5-1 shows the Delete Old Schedule process.

Figure 2.2.5-1. Delete Old Schedule

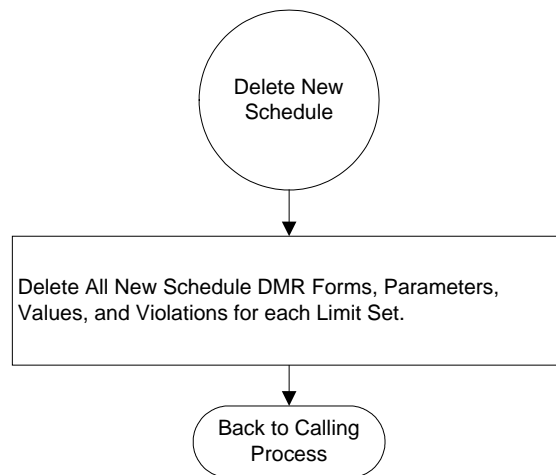


Once the system has successfully completed evaluation and New Schedule generation of every Limit Set/Monitoring Period End Date, if the Expected DMR Schedule program has been called in execution mode (e.g., through an edit or finish modification), the system will delete all the Old Schedule DMR Forms identified for each Limit Set processed during the current run of the program.

2.2.6 Delete New Schedule

Figure 2.2.6 -1 shows the Delete New Schedule process.

Figure 2.2.6-1. Delete New Schedule



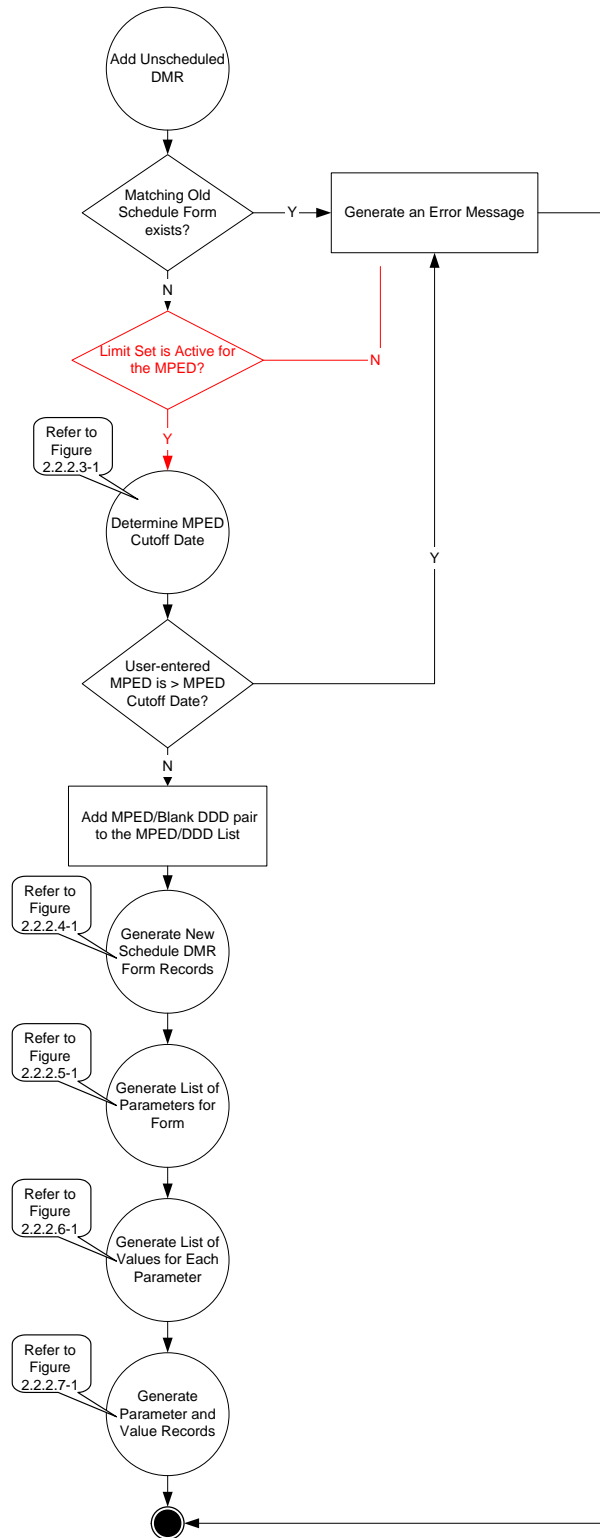
If the system has either encountered an error within the processing or was being run for validation

purposes only, this process will delete all the New Schedule records created during this process.

2.3 ADD UNSCHEDULED DMR

Figure 2.3-1 shows the Add Unscheduled DMR process.

Figure 2.3-1. Add Unscheduled DMR



When the invoking process (see Section 2) submits a MPED Parameter, the program will add an

Unscheduled DMR. The system will validate that no matching DMR exists for the submitted Limit Set and MPED (i.e., that it has not already been added). The system will then determine the MPED Cutoff Date (see Section 2.2.2.3) and validate that the MPED is less than the MPED cutoff date. The system will then add an MPED/Blank DDD pair to the MPED/DDD list and submit it for generation of a new DMR Form (note that in the Find Old Schedule DMR Forms process, no Old Schedule Forms should be found when the user is adding an Unscheduled DMR).

If any of the validations fail, the system will generate an error for the particular Limit Set and MPED and stop working on that Limit Set.

3. OBJECT MODEL

The Expected DMR Schedule Object Model is illustrated in Figure 3-1.

Figure 3-1. Expected DMR Schedule Object Model

4. EXPECTED DMR SCHEDULE DATA ELEMENTS

Table 4.1 lists the data elements associated with the processing of the Expected DMR Schedule.

Table 4.1. Data Elements: Expected DMR Schedule

Table Name	Attribute Name	Data Type
ICIS_PERMIT	Permit_ID	VARCHAR2(9)
	Permit_type_code	VARCHAR2(3)
	Permit_status_code	VARCHAR2(3)
	Effective_date	DATE
	Expiration_date	DATE
	Termination_date	DATE
	Retirement_date	DATE
	MOD_effective_date	DATE
ICIS_PERM_FEATURE	Perm_feature_ID	NUMBER
	Activity_ID	NUMBER
ICIS_LIMIT_SET	Limit_set_ID	NUMBER
	Limit_set_designator	VARCHAR2(2)
	Perm_feature_ID	NUMBER
	Limit_set_type_code	VARCHAR2(3)
	Initial_monitoring_date	DATE
	Initial_DMR_due_date	DATE
	Number_of_report	NUMBER
	Number_of_submission	NUMBER
ICIS_LIMIT_SET_SCHEDULE	Limit_set_schedule_ID	NUMBER
	Limit_set_ID	NUMBER
	MOD_initial_monitoring_date	DATE
	MOD_initial_DMR_due_date	DATE
	MOD_number_of_report	NUMBER
	MOD_number_of_submission	NUMBER
ICIS_LIMIT	Limit_ID	NUMBER
	Limit_set_ID	NUMBER
	Parameter_code	NUMBER
	Monitoring_location_code	VARCHAR2(3)
	Limit_type_code	VARCHAR2(3)
	Stay_type_code	VARCHAR2(3)
	Stay_start_date	DATE
	Stay_end_date	DATE
	Change_limit_status_code	VARCHAR2(3)
	Limit_start_date	DATE
	Limit_end_date	DATE
XREF_LIMIT_MONTH	Limit_ID	NUMBER
	Month_code	VARCHAR2(3)
ICIS_LIMIT_VALUE	Value_type_code	VARCHAR2(3)
	Limit_ID	NUMBER

Table Name	Attribute Name	Data Type
	Optional_monitoring_flag	VARCHAR2(1)
	Limit_value_ID	NUMBER
	Limit_value_nmbr	NUMBER
	Statistical_base_code	VARCHAR2(3)
	Limit_value_ID	NUMBER
	Unit_code	VARCHAR2(2)
ICIS_DMR	ALL DATA ELEMENTS	
ICIS_DMR_PARAMETER	ALL DATA ELEMENTS	
ICIS_DMR_VALUE	ALL DATA ELEMENTS	
ICIS_VIOLATION	Violation_code	VARCHAR2(3)
	RNC_detection_code	VARCHAR2(3)
	RNC_detection_date	DATE
	RNC_resolution_code	VARCHAR2(3)
	RNC_resolution_date	DATE
	DMR_value_ID	VARCHAR2(1)
XREF_NPDES_VIOLATION_ENF	ALL DATA ELEMENTS	
XREF_NPDES_VIOLATION_ENF_CONCL	ALL DATA ELEMENTS	
XREF_DMR_PROGRAM REPORT	ALL DATA ELEMENTS	
ICIS_LOG_JOB	ALL DATA ELEMENTS	

APPENDIX A: LIST OF BIOSOLIDS DMR FORM DATA ELEMENTS

Land Application Site

- Pollutant Table Met
- Crop Types Planted
- Crop Types Harvested
- Does facility certify pathogen reduction for land application?
- Does facility certify vector attraction reduction (VAR) for land application?
- Agronomic Rate (gallons)
- Agronomic Rate (DMT)
- Class A Alternative Used
- Class A Alternative Details
- Class B Alternative Used
- Class B Alternative Details
- VAR Alternative Used
- VAR Alternative Details

Surface Disposal Site

- Does facility certify pathogen reduction for surface disposal?
- Does facility certify vector attraction reduction (VAR) for surface disposal?
- Does facility meet Management Practices for Surface Disposal Site?
- Certification Statement for Surface Disposal Management Practices
- Certifier First Name
- Certifier Last Name
- Class A Alternative Used
- Class A Alternative Details
- Class B Alternative Used
- Class B Alternative Details
- VAR Alternative Used
- VAR Alternative Details

Incinerator

- Compliance with National Emission Standard for Beryllium
- Compliance with National Emission Standard for Beryllium

Co-Disposal Site

- Part 258 Compliance
- Paint Filter Test
- TCLP Test

APPENDIX B: LIST OF USER ACTIONS INVOKING THE EXPECTED DMR SCHEDULE PROGRAM

B.1 Individual Permit

Action	User Invoked	System Invoked
Permit		
Enter Effective Date	X	
Set Permit Status to Not Needed	X	
Change Permit Status from Not Needed	X	
Enter Termination Date	X	
Become administratively continued		X
Finish Reissuance	X	X
Limit Set		
Edit Scheduled	X	
Edit Unscheduled	X	
Limit		
Add Base	X	
Add EA Limit	X	
Edit Base	X	
Edit PML	X	
Edit EA	X	
Edit Key - Base Limits	X	
Edit Key - PMLs	X	
Edit Key - EAs	X	
Delete Base	X	
Delete PML	X	
Delete EA Limit	X	
DMR		
Add Unscheduled DMR	X	
EA/Final Order		
Enter NPDES Closed Date	X	
Blank out NPDES Closed Date	X	
Edit NPDES Closed Date	X	

B.2 General Permit Covered Facility

Action	User Invoked	System Invoked
Permit		
Enter Permit Effective Date	X	
Set Status to Not Needed	X	
Change Status from Not Needed	X	
Enter Termination Date	X	
Become administratively continued		X

Action	User Invoked	System Invoked
Finish Reissuance		X
Limit Set		
Edit Scheduled (as part of apply)	X	
Edit Unscheduled (as part of apply)	X	
Limit		
Add Base (as part of apply)	X	
Add EA Limit	X	
Edit Base (as part of apply)	X	
Edit PML (as part of apply)	X	
Edit EA Limit	X	
Edit Key - Base Limits (as part of apply)	X	
Edit Key - PMLs (as part of apply)	X	
Edit Key - EAs	X	
Delete Base (as part of apply)	X	
Delete PML (as part of apply)	X	
Delete EA Limit	X	
DMR		
Add Unscheduled DMR	X	
EA/Final Order		
Enter NPDES Closed Date	X	
Blank out NPDES Closed Date	X	
Edit NPDES Closed Date	X	