



**Table 2B:
Number and Type of Remedy Updates
in FY00 and FY01**

	FY00	FY01	Total
Total # of Remedy Updates	64	47	111
# Updates With Estimated Savings	37	20	57
# Updates With No Savings	14	10	24
# Updates With Estimated Increases	10	6	16
# Updates NA or TBD	3	11	14

depicted in *Table 2A*. These media are consistent with media typically found at contaminated Superfund sites.

More detailed information regarding remedy updates completed in FY00 and FY01 can also be found in Appendices A, A.1 and A.2. Specific remedy updates are listed by Region and site, and include the following information:

- Type and date of remedy update;
- Update initiator;
- Media involved;
- State and community involvement;
- Estimated resource demands;
- Estimated cost savings or cost increases; and
- Summary of remedy change and factual basis.

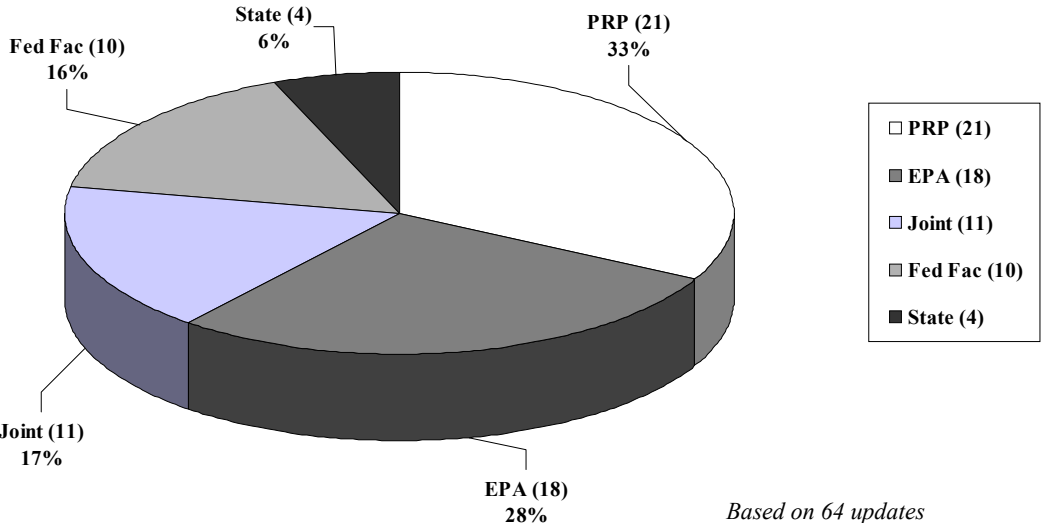
Table 2B depicts the number and kind of remedy updates that were completed in FY00 and FY01. It shows that not all remedy updates generated cost savings or cost increases. In some cases, the remedy updates generated neither cost savings nor cost increases; in other cases, the numbers are yet to be determined or were unavailable at the time of this report. Because all values are not included in this report, the summary totals are conservative values for estimated cost savings and increases. The data do not differ significantly from FY00 to FY01.

3.0 Remedy Update Initiators

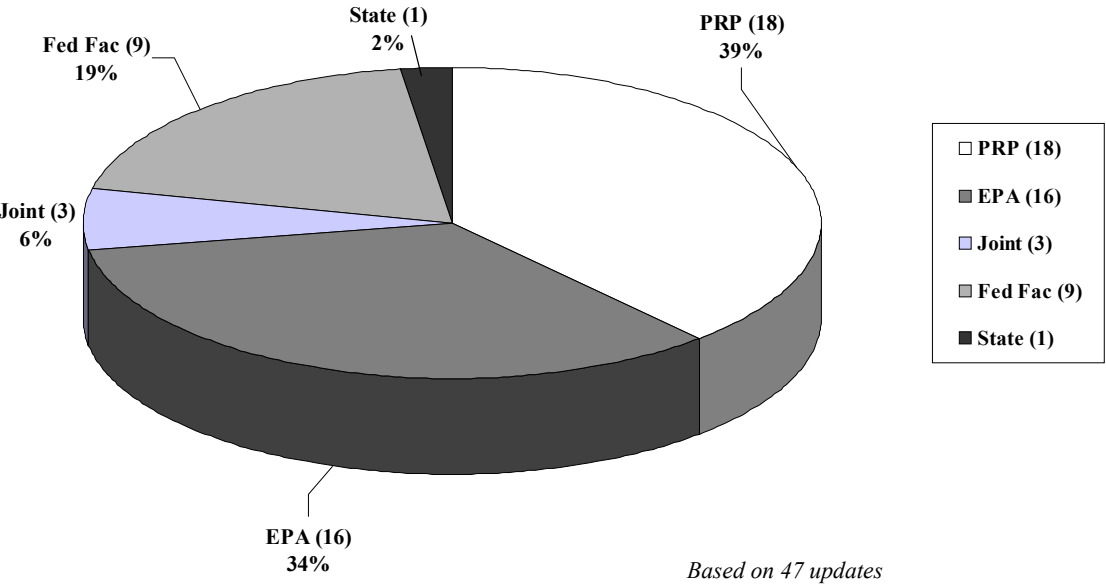
After a remedy decision has been completed at a site (*i.e.*, a ROD is signed), new information may be received or generated that could affect how the remedy selected in the ROD should be implemented. This information may be supplied by a PRP, a Federal agency conducting the cleanup, the support agency (*e.g.*, another Federal agency or State/Tribe), or the public or other interested parties. Data for FY00 and FY01 indicate that 63 remedy updates were initiated by parties outside of EPA (*e.g.*, PRPs, States, communities, Federal facilities) compared to 34 updates initiated by EPA (see *Exhibit 2.3*). In addition, 14 remedy updates have joint initiators because information arrived simultaneously from several different parties. *Exhibit 2.3* shows that the relative percentages of remedy update initiators were not significantly different from FY00 to FY01.

Exhibit 2.3: Remedy Update Initiators in FY00 and FY01

Remedy Update Initiators in FY00



Remedy Update Initiators in FY01





3.1 Remedy Update Type

Generally, the type and scope of change will determine which of the following documents EPA uses to update the remedy: memorandum or note to the Administrative Record for a non-significant or minor change; an ESD for a significant change; or a ROD-Amendment for a fundamental change.

For background information on remedy update type, see “A Guide to Proposing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents,” OSWER Directive No. 9200.1-23P (July 1999). Enforcement decision documents may also need to be modified, depending on the type of remedy update and the language in the order or consent decree, if there is an order or consent decree.

As shown in *Table 2C*, there were 70 ESDs and 41 ROD Amendments completed during FY00 and FY01. There were no minor changes completed during FY00 and FY01.

In general, more remedy updates occur during remedy design and represent a significant but not fundamental change to the remedy. More remedy updates also correspond to at least one of the following situations: the scope of the remedy has changed (*e.g.*, volume increase or decrease); the performance of the remedy can be modified or optimized (*e.g.*, change in disposal or discharge point); or there is a more cost effective way to implement the remedy.

**Table 2C:
Types and Percentages of Remedy Updates
in FY00 and FY01**

	FY00	FY01	Total
ESDs	39 (56%)	31 (44%)	70
ROD Amendments	25 (61%)	16 (39%)	41

3.2 State/Tribal and Community Roles

Most remedy updates in FY00 and FY01 involved State participation and/or community involvement. Although the initiation of a formal public comment period is required only in the case of a fundamental update (*i.e.*, ROD Amendment), most remedy updates, regardless of their significance, have a substantial community involvement component (see NCP Section 300.435(c)(2)(i) and (ii)). For example, documents pertaining to the site, including any information on remedy updates, are placed in the Administrative Record or at the site repository located near the site (*e.g.*, local library). Other activities, including a public availability session, public meetings, issuance of fact sheets about the site, and the release of an amended proposed plan, may allow the surrounding community and other interested parties an opportunity to learn more about the site and present their opinions on remedial activities.

Refer to the individual site summaries in Appendices A.1 and A.2 for specific activities related to State participation and community involvement that were part of the remedy update process for each update completed during FY00 and FY01. States initiated five remedy updates during FY00 and FY01. There were no Tribal-initiated updates and no community-initiated updates either. There were three public-joint updates and eleven State-joint updates.

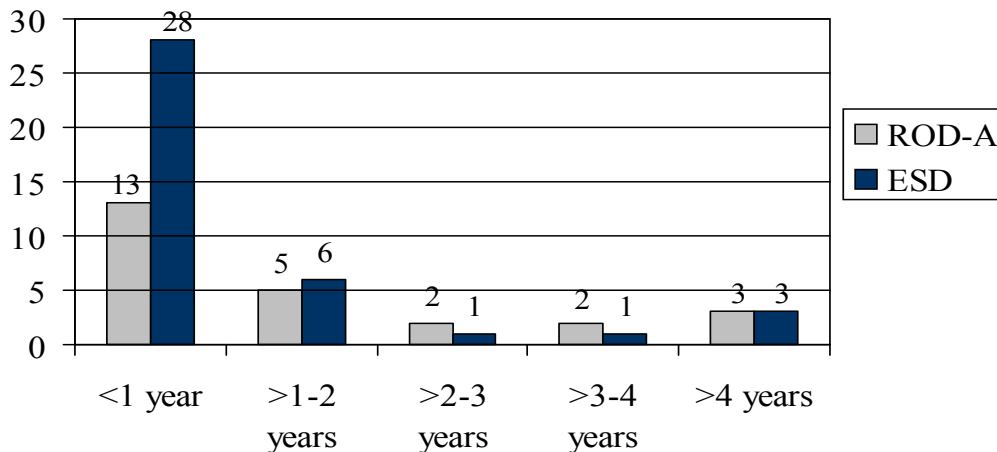
3.3 Remedy Update Duration

Reviewing site-specific material and completing the ESD or ROD Amendment took less than a year for a majority of the remedy updates completed during FY00 and FY01 (see *Exhibit 2.4*). Of note, there is a slight increase in the number of remedy updates with extended review periods. An examination of sites with longer review periods suggests that the review durations were influenced by:

- A lengthy, but important public involvement phase;
- An extensive verification/pilot test period following the discovery of new performance, technical, or toxicological data;

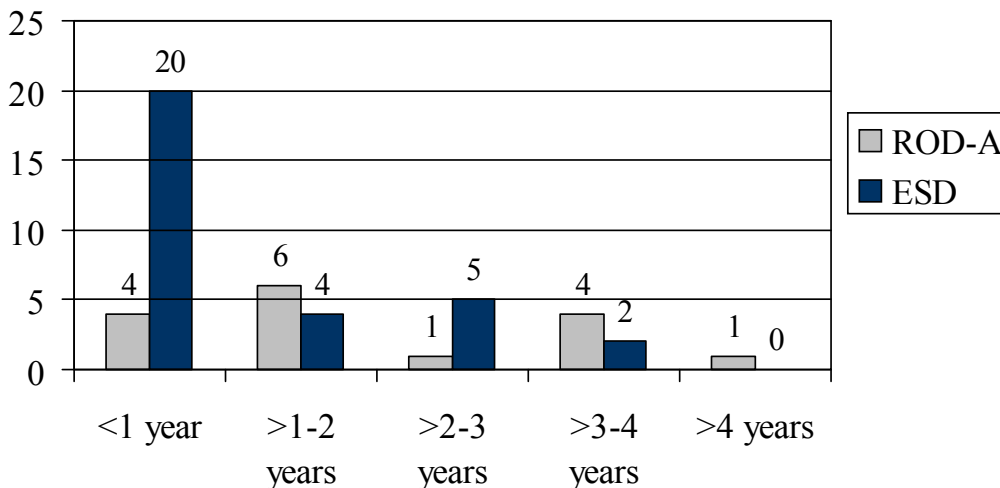
**Exhibit 2.4:
Approximate Review Time for Remedy Updates in FY00 and FY01**

Review Time for Remedy Updates in FY00



Based on 64 updates

Review Time for Remedy Updates in FY01



Based on 47 updates

- The discovery of unexpected contamination late in the remedy design phase; or
- A redefinition of land use.

Section 4.2 provides specific examples of remedy changes whose reviews lasted more than one year.

4.0 Lessons Learned

During the last two years of reform implementation, EPA has gained insight into ways of successfully updating site remedies. The following sections detail information collected regarding reform benefits, site examples, and comments from stakeholders.