

Advance Notice of Oil Transfer Data Quality Control

Agency: Department of Ecology

Project Impact

The Department of Ecology improved the quality control process for the Advance Notice of Oil Transfer (ANT) data for over-water oil transfers resulting in a reduction in the number of data quality issues from about 30 per week to five per week. We also reduced the time needed to do the weekly data quality review from more than one hour to 10 minutes. These improvements result in better data on oil transfers, allowing us to provide more accurate information to our partners and the public on oil movement through Washington waters.

Project Summary

When a vessel or facility transfers oil over water, the delivering vessel or facility must submit an Advance Notice of Oil Transfer (ANT) using our ANT database. We designed the database to have input fields and drop-down choices for the customers' convenience and our data control purposes. However, some of the fields allowed for data entry errors (for example, transfer type and vessel name). This resulted in incorrect entries and poor data quality. Ecology's data quality review process was also time intensive.

Due to limited Ecology resources and the time intensive nature of the data quality review, we could not consistently review this data for several years. We needed to develop a streamlined review process to resume this work on a regular basis, within existing resources, and to reduce the number of data entry errors.

Before, it took an average of more than one hour to perform the data quality review on an average of 267 ANT entries a week, compared to our target of 10 minutes, which we want to reach by 9/30/17. The number of ANT entries containing errors is an average of more than 30 per week, which is about 11 percent of all ANT entries, compared to our target of three or fewer errors per week, which is about 1 percent of ANT entries.

We improved the Advance Notice of Oil Transfer data by:

- Implementing mistake proofing, in the ANT system, to prevent many data entry errors.
- Using a report from another database to identify any remaining data entry errors instead of using a manual process.

Project Results



Quality

Decreased the number of data entry errors **from** an average of 30 errors a week **to** an average of 5 errors a week.



We had an average of 6.4 errors per week during the reporting period after completion of the project.



Time

Decreased time needed for data quality review of ANT data **from** an average of 60 minutes a week **to** less than 20 minutes a week.



Currently, data quality review can be completed in about 20 minutes per week, allowing us to complete this work on a regular basis with existing resources.

Project Details

Date improvement project was initiated: 1/1/2017

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