HazMat Trucking Enforcer Tutorial

Last revised: 2008-06-18

Table of Contents

Introduction and Purpose

HazMat Trucking Enforcer ("HTE") is a software program created by RegScan that helps commercial vehicle law enforcement officials inspect trucks carrying hazardous materials. Specifically, our program has modules that tell the roadside inspector the proper segregation, truck markings, placarding and shipping papers for trucks carrying hazardous materials. Our program enables an inspector to not only save time and remove a lot of the guesswork involved in HazMat inspections, but it also decreases inspector-training time, creates uniformity in the inspection procedures across the country, and increases the chances that a terrorist using a truck carrying hazardous materials will be caught.

Recently, RegScan commissioned a study by Dr. Peter Went, a Business Management Professor at Bucknell University in Lewisburg, PA, to measure the effectiveness of the program. State and local law enforcement officers that use the HTE software were interviewed to find out how much it helps them conduct roadside HazMat inspections. The study found that:

1. **Inspectors found 86% more hazardous material violations**
2. Inspectors used 33% less time to conduct complex highway safety inspections
3. Productivity increased 38%
4. On average, 20 to 25 minutes were saved per inspection
5. The number of HazMat inspections increased 25-30%

The purpose of this document is to enable inspectors in the field to quickly familiarize themselves with the operation and features of the program. This guide complements the help system and the built-in video tutorials.

Basic Operation

After installing and registering your copy of HTE, start the program. You will see a standard menu bar and a toolbar of small icons at the top, 4 larger icons along the left-hand side (Truckload, Compliance, Search and Saved Load), and a large white screen.

Viewing the Video Tutorials

HTE includes several video tutorials that serve as introductions to the software. These can be accessed by clicking Help on the menu bar and selecting the Video Tutorials submenu. This will allow you to view:

1. Overview – Demonstrates basic operating procedures for HTE.
2. Getting Started – Overview of navigation through menus, toolbars, and regulations.
3. The Auditors – Usage of shipping paper, label, and package marking auditors.
4. Cargo Tanks – Usage of the cargo tank auditor.

We recommend that you begin with the Overview video tutorial before beginning this tutorial.

Now that you've familiarized yourself with the basics of the program, we can begin by loading some hazmat items on the truck. You can add an item to the truckload by either a) clicking on the "plus" (Add to truckload) toolbar button, b) double-clicking the white screen or, c) clicking "Add Item To Truckload" from the Edit menu.

Adding UN1263: Paint

– Display the Add Item dialog window by clicking the yellow "plus" (Add to truckload) toolbar button.
– Type "1263" as the ID Number.
  Note that the program will automatically enter "UN" or "NA" whenever it can.
– Select "Paint" as the Proper Shipping Name.
– Select "Packing Group I" as the Packing Group.
– Enter 1500 lbs. for the Weight.
– Answer "No" to the "Has this hazmat been reclassified as a combustible?" question.
– Click OK.
  You have now loaded this item on the truck.

– Click the large red "Compliance" icon on the left.
  You will see the required placard (Flammable) for the load.
– Click the "Truckload" icon on the left to return to the truckload screen.

Adding UN2829: Caproic acid

– Display the Add Item dialog window.
– Type "2829" as the ID Number.
– Enter 500 lbs. for the Weight.
– Check the "Bulk Package" option.
– Answer "Yes" to the "Is this a liquid?" question.
– Click OK.
– Click on the "Compliance" icon on the left.
  Note the "Bulk Corrosive 2829" placard.
– Click the last toolbar button "Display ID markings on orange panels (on)" button.
  Note that now the ID marking is shown on an orange panel.
– Click on 2829 orange panel to view the associated regulation.
– Close the regulations window.
– Click on the "Truckload" icon on the left.

Viewing the Hazardous Material Table Entry

– Right-click the Caproic acid entry on the truckload.
– Click the "View Hazardous Material Table Entry" from the menu.
  Note that on this window, you can see the hazardous material table entry exactly as it appears in the CFR. Many elements in the table are hyperlinked, and clicking them will bring up the appropriate regulation.
– Close the Hazardous Material Table Entry window.

Adding UN1318: Cobalt resinate, precipitated

– Display the Add Item dialog window.
– Type "1318" as the ID Number.
– Enter 2000 lbs. for the Weight.
– Click OK.
– Click on the "Compliance" icon on the left.
  Note the blue segregation message. Hover your mouse over it for more information.
– Click on the small ">" button to the right of "Placarding Options (1 of 2)" to see another placarding option.
  Note that some loads can be placarded in multiple ways, and the program will calculate all options.
– Enforcement Edition Only: Click the "Allowed Placards" button on the right.
  Note that some placarding options have additional permitted (but not required) placards.
– Enforcement Edition Only: Close the "Allowed Placards" window.

Adding UN3394 (formerly UN3203)

– Click the "Truckload" icon on the left.
– Display the Add Item dialog window.

- Type "UN3203" as the ID number.
  Note the message box indicating this ID number is now represented as UN3394
- Click the OK button.
- Type "UN3394" as the new ID number.
- Enter 500 lbs. for the weight.
- Click OK.
- Answer "Yes" to the "Adding this item to the truckload will make the truckload illegal." question.
  The program will always warn you if you are doing something that will make the truckload illegal.
- Click the "Compliance" icon on the left.
  Note the red segregation warnings. If you hover your mouse over these warnings and look in the upper-right corner of the screen, you will see the regulatory references.

Removing UN3394

- Click the "Truckload" icon on the left.
- Select "Organometallic substance, liquid, pyrophoric, water-reactive" by clicking it once.
- Click the yellow "minus" (Remove from truckload) toolbar button.
  This removes this hazmat from the load.
- Click the "Compliance" icon on the left.
  Note that the red illegal message is now gone.
- Click on the first toolbar button "New" to reset and clear the truck.
- Answer "No" to the "Do you want to save changes made to the current truckload?" question.

Searching

- Click the "Search" icon on the left.
- Type "Aluminum" (without the quotes) in the "Look for:" field.
- Click the "Search" button on the right.
  Note that you can search by Proper Shipping Name, Class, and ID Number.
- Double-click the first match, NA9260.
  The Add-Item dialog is displayed with NA9260 selected.
- Enter 500 lbs. for the Weight.
- Click OK.
- Click the "Truckload" icon on the left.

Using the 8,820 rule

- Click on the first toolbar button "New" to reset and clear the truck.
- Answer "No" to the "Do you want to save changes made to the current truckload?" question
- Display the Add Item dialog window.
- Type "UN1263" as the ID number.
- Select "Paint related material" as the Proper Shipping Name.
- Select "Packing Group III" as the Packing Group.
- Enter 8820 lbs. for the weight.
- Answer "No" to the "Has this hazmat been reclassified as a combustible?" question.

- Click OK.
- Click the "Compliance" icon on the left.
  - *Note that a single Flammable placard is required, and no ID Number markings are required.*
- Click the "Truckload" icon on the left.
- Check the box under the toolbar indicating "The shipment meets the criteria of the citation [8820 Rule]."
  - *Clicking the related hyperlink to regulation 49 CFR 172.301(a)(3) will display the criteria required to meet the 8820 Rule.*
- Click the "Compliance" icon on the left.
  - *In compliance with the 8820 Rule, the truck is now required to display the ID number of the hazardous material.*

Accessing Saved Loads

- Click the Saved Loads icon on the left.
- Click the Report button to the top-right of the window.
  - *Note columns displaying details on each saved load.*
- Click the Preview button to the top-right of the window.
  - *Note the saved loads are displayed visually as a placarding option. A white background denotes a legal load, red an illegal load, and yellow a possibly illegal load.*
- Click the Filter button to the top-right of the window.
- Enter "Shipping" in the Name Contains field and hit Ok.
  - *Saved loads are now filtered to show only those containing the phrase "Shipping". Loads can also be filtered by date ranges and their legality.*
- Click the Filter button again.
- Click the Reset button.
- Click OK.
  - *The original list of all saved loads is shown again.*

Using the Auditing Modules

The program allows an inspector to not only check placarding and segregation requirements, but also run a cargo tank inspection, check package markings and labels, and even audit the shipping papers. Follow the instructions below to familiarize yourself with these auditing tools.

Performing a cargo tank inspection

- Click the "Saved Load" icon on the left.
- Double-click the "Example" load.
- Click the "Truckload" icon on the left.
  - *Note that we are looking at an example load that is shipped with the program.*
- Select "Motor Cargo Tank Inspection" from the "Auditing" menu at the top of the window.
- Answer "Yes" to the "Are you sure you wish to continue?" question.
  - *The program will warn you when you are doing a Motor Cargo Tank audit and there are non-bulk hazmats on the load.*
- Select "MC 331" from the "Select a tank for inspection" drop-down on the top-left corner of the window.
  - *Note that you can select tanks by pictures by clicking the "View Tanks"*

hyperlink.
– Click the "Details" tab at the top of the screen.
   This will showcase important details about any selected tank, including common inspection violations.
– Click the "Inspection" tab at the top of the screen to return to the inspection form.
– Enter sample values for Inspector Report Number, USDOT Number, Inspector Name, and Carrier Name.
– Begin answering the questions on the right pane.
   You can click the hyperlinks on the right for more details about how to answer the questions.
– Click the "Yes" toolbar button to default the answer to every question to Yes.
   After choosing a default answer, you can go through the questions and revise some answers.
– Answer a few questions "No".
– Click the "Violations" tab at the top of the screen.
   Note the violations. All of these violation codes are pulled straight from ASPEN, so they are all 100% compatible.
– Close the Motor Cargo Tank Inspection window.
– Click the Truckload icon on the left.
– Right-click the "Alkali metal alcoholates..." entry on the truckload.
– Select "View Authorized Motor Cargo Tanks" from the right-click menu.
   Note that you can do this to see allowed tanks for individual hazmats.

Performing a package marking audit or a labeling audit

– Right-click the "Arsenic bromide" entry on the hazmat list.
– Select "HazMat Label Auditor" from the right-click menu.
– Answer "No" to the first four questions.
– View the labeling requirements for this package of arsenic bromide.
   Note the hyperlinked regulations.
– Close the HazMat Label Auditor window.
   Note that the HazMat Package Marking Auditor works similarly to the HazMat Label Auditor.

Performing a shipping paper audit

– Click the "Saved Loads" icon on the left.
– Double-click the "Shipping Paper Example" load.
– Click the "Truckload" icon on the left.
– Select Edit > Preferences from the menu at the top of the window. Make sure "Validate All Questions Yes or No" is not checked.
– Select Auditing > HazMat Shipping Paper Auditor from the menu at the top of the window.
– There are 3 tabs on the top of the page for "Inspection", "Violations", and "Shipping Paper". Click "Violations".
   In this mode we are required to answer all of the questions. Note the box listing all of the unanswered questions.
– Click the "Shipping Paper" tab.
   Here we see a sample shipping paper for the current truckload. Hyperlinked text can be clicked for more information and specific regulations.
– Return to the "Inspection" tab.

> *Scrolling through the list, we see the inspection is broken down into "Global" questions and into groups according to hazmats that require specific questions.*
- Click the "Yes" toolbar icon to set all of the answers to yes.
- Answer "No" to Question 2, "Are the Shipping Papers on a single page?"
  > *This will open up a child question, which helps bring us to our specific violation.*
- Click the "Details" link following the question for more information and regulations.
- Answer "No" to Question 2.1 "Are the pages numbered with the total count on the first page?"
- Click the "Violations" tab
  > *A violation has now been raised for failure to list total number of pages.*
- Select Options > Reset Inspection from the top of the Shipping Paper Inspection window.
- Close the Shipping Paper Inspection Window
- Select Edit > Preferences from the menu at the top of the main window. Place a check in the box next to "Validate All Questions Yes or No"
- Return to the auditor by clicking Auditors > Hazmat Shipping Paper Auditor
  > *Note the questions in the "Inspection" tab. All child questions are permanently displayed in this mode.*
- Answer "No" to Question 15 "Have the technical name(s) been added in parentheses in association with the Basic Description?"
- Click the "Violations" Tab
  > *In this mode we are not required to answer all of the questions before viewing the violations. A violation for "No technical name for 'nos' entry" has been raised. NOTE: Not all questions will necessarily raise a violation. Higher level questions help determine if violations are present and the lowest level children will generally raise the specific violations.*

Working with ASPEN (Enforcement Edition Only)

The violations feature of HTE is only available in the enforcement version. Commercial users may ignore this section.

Setting up HTE

- Click Edit on the menu bar and select "Preferences".
- In the bottom box titled "ASPEN" be sure the check box is marked next to "Enable ASPEN violation transfers".
- Click Ok to close the preferences window.

Setting up ASPEN

- Open ASPEN software.
- Click Tools on menu bar and select "Manager Configuration".
- Enter Manager Password.
  > *Default password is "aspen" without quotes*
- Enter proper values for State Abbreviation, Computer Code, and Report Number.
  > *These values are required to be filled to run ASPEN. If you do not have proper values for these fields, they can be filled with anything for demonstration purposes*
- Click OK.
- Click the first icon on the toolbar to create a new inspection.

- Click the dropdown menu under Inspection Level and select "1 – Full Inspection".

Sending violations to ASPEN

- Return to HTE.
- Click the Saved Loads icon on the left.
- Double click the "Segregation Example".
  - *The red background indicates this is an illegal load.*
- Answer No to the question "Do you want to save the changes made to the current truckload?"
- Click the Violations icon on the left.
  - *Note we are shown the list of current violations. Above the violations is displayed the current ASPEN report number.*
- Click the "Send to ASPEN" button above the violation listings.
- Answer Yes to the question "Do you want to complete the violation transfer?"
- Click Ok to confirm the violation transfer.
- Return to the ASPEN program.
- Select the Violations tab on the top to see the transferred violations.
- Click File on the menu bar and select "Exit".
- Click "Save as Incomplete" to finish closing.

Other Features

HazMat Regs

- Click "HazMat Regs" under the "Help" menu at the top of the screen.
- Click "CFR- Title 49" hyperlink on the right.
  - *Note we include not only the HazMat regs, but also the Motor Carrier Safety regs and even the old, out-of publication HazMat regs.*
- Check out the other hyperlinks below CFR – Title 49: Flash Points Table, Gallons to Pounds Conversion Table, Summary of ASPEN Violations, and Quick Links). Explore.
- Close the HazMat Regs window when you are done.

Emergency Response Guide (ERG)

- Click the yellow (second-to-last) toolbar button (Emergency Response Guide) at the top of the screen.
  - *The Emergency Response Guide for the items on this truckload will be displayed.*
- Click the "7. Dinitrogen Tetroxide" hyperlink.
- Scroll down to view Potential Hazards, Public Safety and Emergency Response.
  - *Note the Initial Isolation and Protective Action Distances are included.*
- Close the ERG window when you are done.

Administrative Tasks

HTE has options that can be changed to make use easier depending on the application. These can be found under the Edit menu on the menu bar in the "Preferences" submenu.

Modifying Preferences

General Tab

Placarding Options
–   Display ID markings on placards
    Display ID marking on placards if checked, otherwise as separate marking.
–   Show dangerous placarding option first
    If checked show dangerous placard as first option when applicable.
Save Options
–   Modify saving prompts, default Truck ID, and Saved Loads Path.
Saved Loads Default View
–   Preview
    Display saved loads as an image containing a placarding option.
–   Report
    Display saved loads in a more detailed column format.
ASPEN

–   Enable ASPEN violation transfers.
    Must be checked to allow violation transfers to ASPEN.

Auditors Tab

Shipping Paper Auditor

–   Warn about unanswered auditor questions
    Provide prompt when one or more questions have been left unanswered.
–   Display questions expanded
    Always display all possible questions, even if not applicable.
Motor Cargo Tank Auditor
–   Warn about unanswered auditor questions
    Provide prompt when one or more questions have been left unanswered.
–   Always use default Inspectors name
    Default Inspector name may be used for each inspection.