

CHAPTER 9
RADIOACTIVE MATERIALS TRANSPORTATION
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CHAPTER 9

RADIOACTIVE MATERIALS TRANSPORTATION

1. GENERAL. The California Highway Patrol (CHP) is responsible for ensuring the safe transportation of radioactive materials (RAM). This chapter provides definitions pertinent to RAM and describes procedures for developing regulations which prescribe the routes to be used by transporters of Highway Route Controlled Quantity (HRCQ) shipments of RAM subject to Division 14.5 of the California Vehicle Code (CVC). It also provides policies and procedures regarding the CHP's responsibility pertaining to commercial vehicles transporting HRCQ of RAM, including conducting and receiving reimbursement for North American Standard Level VI (Level VI) inspections, as required by Title 49 of the Code of Federal Regulations (49 CFR), Section 385.415.

2. LISTING OF RADIONUCLIDES. A partial list of radionuclides and mixtures can be found alphabetically in 49 CFR, Part 172.101, Appendix A, Table 2.

3. APPLICABLE FEDERAL REGULATIONS.
 - a. Changes. Title 49 CFR, Section 385.415 requires motor carriers to ensure that a Level VI inspection is conducted on each commercial vehicle prior to the vehicle's use for transporting HRCQ of RAM. Previously, a Level VI inspection and out-of-service criteria was only applicable to United States (U.S.) shipments of transuranic waste. California has adopted 49 CFR, Section 385.415 as it relates to safety permits and pre-trip inspections of vehicles which transport HRCQ of RAM.

 - b. Level VI Inspections. Currently, the CHP is the only agency in the state authorized to conduct Level VI inspections of all commercial vehicles transporting HRCQ of RAM originating in California, or entering the U.S. via California.

4. SUMMARY OF APPLICABLE STATE REGULATIONS.
 - a. General California Vehicle Code Rules. Vehicles transporting RAM are subject to all general and specific traffic laws as outlined in Chapter 4 of this manual.

 - b. Division 14.5 of the California Vehicle Code. This Division applies to the transportation of HRCQ shipments of RAM. Section 33000 CVC requires, subject to the provisions of Section 114765 of the Health and Safety Code, that the Department, after consulting with the Department of Health Services, adopt regulations specifying the time at which shipments may occur and the routes that are to be used in the transportation of cargos of hazardous RAM. Title 17,

California Code of Regulations, Section 30100 defines “hazardous radioactive material” as HRCQ shipments of RAM as defined in 49 CFR, Part 173.403.

c. Title 13, California Code of Regulations. Title 13 of the California Code of Regulations (13 CCR), Sections 1158 and 1159 provide routes for carriers subject to Division 14.5 of the CVC. For enforcement purposes, 13 CCR, Section 1158.2 requires transporters to use specific transportation routes (unless transporter is making a local pick up or delivery). Transporters using unapproved routes should be cited under Section 34506(b) CVC, referencing 13 CCR, Section 1158.2. The requirements of 13 CCR, Sections 1160 and 1167 apply to transportation of RAM. These sections include specific vehicle safety equipment, shipment preparation, and reporting of incidents. Title 13 CCR, Sections 1202.1 and 1202.2 require Level VI inspections.

5. POLICY.

a. Applicability of Level VI Inspections. Level VI inspections shall be conducted on Department of Energy (DOE) and non-DOE shipments. Waste isolation pilot plant shipments or shipments falling under safeguard requirements pursuant to Title 10, Code of Federal Regulations, Section 73.21, shall be handled by Commercial Vehicle Section (CVS).

b. Level VI Inspections. When a Level VI inspection is required, it shall be conducted at the point of origin for shipments originating in the U.S., or the point of entry for shipments that enter the U.S. via California from other countries; after the correction/repair of an out-of-service condition which was discovered during the initial Level VI; or en route inspection and at any location where equipment is changed (e.g., a different tractor is coupled to the trailer due to a defect on the tractor originally intended for transport). Level VI inspections shall only be conducted by personnel who have successfully completed the Commercial Vehicle Safety Alliance (CVSA) Level VI Inspector Training Course and have maintained their qualifications. Inspections shall be conducted as outlined in this chapter. The CVSA protocol requires that all Level VI inspections shall include the following:

(1) A Level I inspection of the transport vehicle’s mechanical components and driver qualification (which includes the completion of a CHP 407F, SafetyNet Driver/Vehicle Inspection Report).

(2) The completion of a CVSA Level VI (Enhanced North American Standard) Inspection for HRCQ (as defined by 49 CFR, Section 173.403), and Transuranics form.

(3) A CHP 133, Survey Meter/Dosimeter Use Log.

c. Point of Origin Level VI Inspections. Point of origin inspections are conducted using the Enhanced North American Standard Inspection Criteria. This requires the vehicle be “defect free” at the start of the load. When violations are detected during a Level VI point of origin inspection, the vehicle is placed out-of-service until the defects are corrected. The inspector shall, in conjunction with the operator of the vehicle, determine if the repairs can be completed within the first four hours of the detail. If it is determined the repairs can be made within that period of time and the operator requests the inspector remain available to perform a reinspection, the inspector shall remain on duty and available to reinspect the vehicle. If it is determined by the transporter the repairs can not be made in the first four hours of the detail, the inspector may cancel the detail until the repairs can be completed.

d. Roadside Inspections. Roadside inspections of any level can be conducted on commercial vehicles that transport HRCQ of RAM while en route to the vehicles’ destination. Those inspections will be conducted adhering to the version of the North American Standard Out-of-Service Criteria referenced in the 13CCR, Section 1239(b) which will be supplied by Commercial Vehicle Section (CVS). Any deviation requires prior approval from CVS. Personnel shall use sound, professional judgment when determining whether to conduct a roadside inspection on a vehicle which displays a current CVSA Level VI inspection decal. Such inspections should be reserved for instances in which a defect is observed. When determining the safest possible location to conduct an inspection, consideration shall be given to the vehicle’s disposition should it be determined that an out-of-service violation exists. Examples of safe locations include a commercial vehicle enforcement facility (CVEF), a safe location along the designated route, or a location in compliance with 13 CCR, Section 1158.2, Routes Traveled and Stopping. When a vehicle transporting an HRCQ of RAM is detained for any reason, a supervisor shall be immediately notified.

e. Out-of-Service Procedure. Placing a commercial vehicle out-of-service shall be done in conformance with HPM 82.6, Chapter 2, Operational Policies. The supervisor shall then notify the Department Radiological Safety Officer (DRSO), through the Emergency Notification/Tactical Alert Center (ENTAC), as soon as practicable.

f. Out-of-Service Vehicles. When out-of-service violations are detected during a roadside inspection, placing the vehicle out-of-service must be done in conformance with HPM 82.6, Chapter 3, and CVSA Level VI protocol. When a DOE shipment is inspected and put out-of-service for any reason, the DRSO or Assistant DRSO shall be notified via ENTAC at (916) 843-4199. A notification will also be made to the State Terrorism Threat Assessment Center (STTAC) at (916) 843-3940 or email at STTAC@calema.ca.gov. In every case, a supervisor shall be notified as soon as practicable.

(1) If it is a DOE shipment notification to the DRSO or Assistant DRSO shall include:

(a) The circumstances surrounding the inspection.

(b) The out-of-service violation.

(c) The vehicle's disposition; e.g., whether the vehicle is parked at a safe stopping location while waiting for correction/repairs to be completed, whether the repairs can be performed on site in a timely manner, and whether an officer is standing by with the vehicle.

(2) Upon the issuance of the out-of-service order, the supervisor shall notify the RAM coordinator of the appropriate Division Commercial Unit of the need for a Level VI certified inspector to perform an inspection upon completion of the repairs, and apply a new CVSA Level VI decal. The inspector must ascertain the length of time necessary to correct or repair the violation. This time frame is critical in determining whether to stand by during the correction/repair, or leave and return when the shipment is ready to be reinspected.

(3) Any out-of-service violation requires the vehicle to receive a new CVSA Level VI inspection before a new CVSA Level VI decal can be issued. When a roadside inspection results in an out-of-service condition, the inspector or supervisor (depending on the inspector's training), shall remove the CVSA Level VI decal from the previous inspection. Only an officer or supervisor certified to perform Level VI inspections are authorized to remove the CVSA Level VI decal.

g. Reinspections. The transporter shall be given a contact number for the inspector to request a new Level VI inspection. The supervisor shall notify the Division RAM coordinator of the need to initiate a reimbursable contract with the transporter for the new Level IV inspection. If, during this process conflicts arise, the supervisor shall contact the DRSO, who has the ultimate authority in a RAM incident, for assistance with a resolution. The DRSO is authorized under this policy to make decisions and take actions based on public service, safety, and the mission of the Department.

h. Reimbursement. Costs associated with inspections and the time and travel of departmental personnel shall be paid as follows:

(1) Department of Energy. Shipments of transuranic waste, special nuclear material, or spent nuclear fuel (SNF), which is transported for the DOE, shall be coordinated by the Environmental Routing Coordinator (ERC), at CVS. The ERC will determine if cost reimbursement is appropriate.

(2) Non-DOE shipments. Inspections of commercial vehicles transporting HRCQ of RAM shall be coordinated by the Division RAM coordinator. The carrier requesting the inspection shall be responsible for reimbursing the Department for the actual cost associated with these shipments.

i. Incident/Accident Reporting. Any unusual incidents, collisions, deviations in required routing, or unplanned exposures shall be handled in accordance with Chapter 2 of this manual, and requires notification to the DRSO.

6. RESPONSIBILITIES.

a. Commercial Vehicle Section Responsibilities. The ERC shall maintain a record at CVS which tracks the pertinent information relating to all Level VI inspections. This information shall include, but is not limited to the following:

- (1) The date of the inspection.
- (2) The name of the inspector.
- (3) The name of the carrier.
- (4) Vehicle identifiers.
- (5) The serial number(s) of issued CVSA Level VI decal(s).

Using a CHP 406A, CVSA Sticker Assignment Log, the ERC shall ensure that an adequate number of CVSA Level VI decals and forms are distributed to Division RAM coordinators, as well as to the CVEF which are located along designated routes. The Level VI decals are subject to the security policy of CVSA decals found in HPM 82.6, Chapter 3, Inspection Policies. The ERC is to ensure that the CVSA Level VI decals are issued to officers qualified to perform CVSA Level VI inspections.

b. Division Commander Responsibilities. The Division commander shall designate a Division RAM coordinator who will be the liaison with CVS. Additionally, commanders shall ensure that a sufficient number of personnel within their command have attended the CVSA Level VI Inspector Training Course, and that these employees have maintained their certification, as required by CVSA policy.

c. Division Radioactive Materials Coordinator Responsibilities. The Division RAM coordinator shall maintain a roster of personnel who are qualified to conduct Level VI inspections. When the Division RAM coordinator receives requests for Level VI inspections directly from the shipper or carrier, the ERC at CVS shall immediately

be notified of the shipment and all pertinent information for tracking purposes. This allows the ERC to ensure the proper method of departmental reimbursement is utilized. The Division RAM coordinator shall make arrangements with qualified personnel and the carrier. In most circumstances, one inspector can safely inspect a shipment, but additional personnel may be utilized when required by unusual situations; such as multiple shipments and special requests. Justification for more than one inspector shall be indicated on the appropriate forms. The Division RAM coordinator shall maintain records of all time spent inspecting and reinspecting shipments, including any associated travel and overtime. The Division RAM coordinator shall maintain and track all documents related to Level VI inspections including, but not limited to:

- (1) CHP 133, Survey Meter/Dosimeter Use Log.
- (2) Inspection forms, CHP 407F and CVSA Level VI, Enhanced North American Standard Inspection Form for HRCQ and Transuranics.
- (3) Inspector time sheets.

d. The Division RAM coordinator shall route the white and green copies of the CVSA Level VI Inspection Form for HRCQ and Transuranics, a copy of the CHP 407F, and all other documents relating to the inspection, within 15 business days of the completed inspection, to: CVS, Attention: Environmental Routing Coordinator. When an inspection is conducted using ASPEN, a hard copy will be printed and forwarded to CVS as stated above. Copies of all documents shall be maintained at Division for five years, at which time all documents shall be handled as confidential destruction.

e. Inspector Responsibilities. The inspector shall obtain and sign for a CVSA Level VI decal and the CVSA Level VI Inspection form for HRCQ and Transuranics, prior to conducting a Level VI inspection or reinspection. All documents relating to the inspection shall be forwarded to the Division RAM coordinator within 72 hours of the inspection. If the CVSA Level VI decal is not used, the inspector shall sign the decal back over and return it to the Division RAM coordinator, or CVEF within 72 hours after the inspection.

7. COST REIMBURSEMENT POLICY AND PROCEDURES.

a. Department of Energy Shipments. Shipments of transuranic waste, or spent SNF which is transported for DOE, shall be coordinated by the ERC at CVS.

b. Non-Department Of Energy Shipments. A Reimbursable Services Agreement (RSA) log number shall be obtained from the Division's RSA coordinator for all non-DOE shipments and the following procedures shall be followed:

- (1) The shipper/carrier shall be contacted to determine the shipment dates, times, and number of inspectors required to complete the inspection.
- (2) A Traffic Control Cost Estimate – CHP 464, Advance Deposit, and a CHP 465, Reimbursable Letter of Agreement, shall be completed for cost determination.
- (3) Advance payments for the inspection costs shall be collected from the shipper/carrier for the amount indicated on the CHP 464 prior to the start of services.
- (4) Advance payment checks are to be mailed or hand delivered to the Division office. Upon receipt of the check, a CHP 251, Counter Receipt, shall be completed and given or mailed to the shipper/carrier's representative.
- (5) Upon completion of the inspection service, a CHP 467, Billing Memorandum – Reimbursable Services, shall be prepared and submitted to Fiscal Management Section (FMS), along with the following supporting documentation:
 - (a) Copy of the shipper/carrier's check.
 - (b) Copy of the issued CHP 251.
 - (c) Copy of the CHP 464.
 - (d) Copy of the signed CHP 465.
- (6) The original CHP 464 is to be attached to the CHP 230, Weekly Transmittal Record.
- (7) For services estimated to be under \$20,000, three copies of the CHP 465 are required. One copy shall be retained at Division, one copy by the requesting company, and the last copy shall be sent to FMS with the billing information.
- (8) If the requester asks that an indemnification clause be included in the RSA, the Division RAM coordinator shall follow the procedures as directed in HPM 11.1, Administrative Procedures Manual, Chapter 6. Inclusion of this clause must have the approval of the Department of General Services, Office of Legal Services.
- (9) For services estimated to be over \$20,000, per occasion, the Division RAM coordinator shall prepare a Letter of Intent and a CHP 78A, Agreement

Request, in accordance with HPM 11.1, Chapter 6. The Division RAM coordinator is not required to obtain an RSA number for services over \$20,000.

(10) Services estimated to be over \$50,000 per occasion, will require a contract through Business Services Section, Contract Services Unit.

8. RESPONSIBILITIES FOR ROUTE REVIEW PROCESS.

a. Field Division Responsibilities. Field divisions shall notify CVS as soon as practicable when an existing route should be changed or updated. This notification shall be by Comm-Net or facsimile.

b. Commercial Vehicle Section. Commercial Vehicle Section will review all requests for changes, and revise regulations as necessary.

9. REGULATIONS REVISION.

a. Public Requests for Regulation Changes. All regulation changes (additions, deletions, or modifications of routes) requested by local agencies, trucking companies or other persons shall be referred to CVS for appraisal and reply.

b. Frequency of Revisions. Regulations shall be reviewed and revised by CVS as necessary to reflect changing conditions.

c. Interim Revisions. Field commanders may recommend revisions to the regulations at any time. Commercial Vehicle Section will process these interim recommendations as needed.

d. Copies of Proposed Regulatory Changes. In all cases, CVS shall provide copies of the proposed changes to all Area commands, the affected local fire and law enforcement agencies, manufacturers, transporters, and interested parties. Commanders should thoroughly review the Notice of Proposed Regulatory Action to ensure recommended changes are appropriate. All persons will be given the opportunity to comment on the proposed changes.