ROAD MAINTENANCE SPECIFICATIONS

SECTION T-803A - SNOW REMOVAL (02/04/2002)

1. DESCRIPTION OF WORK

This work consists of removing snow from roads to provide safe travel for low and/or high clearance vehicles, to protect adjacent resource values and road investments, and to prevent damage to roads during use by Purchaser.

2. MAINTENANCE REQUIREMENTS

a. The traffic Control Plan is pursuant to B(T) 6.33 Safety and shall be amended as necessary for snow removal operations under b(10) (a) or (b).

b. If Purchaser’s operations require removal of snow, the following requirements shall be met:

(1) Signs required by the amended Sign Plan shall be erected prior to beginning snow removal operations.

(2) Work shall be performed in a manner to preserve and protect roads and appurtenances and to prevent erosion damage to roads, streams, and other Forest values.

(3) Banks shall not be undercut nor shall gravel or other surfacing material be bladed off the road.

(4) Roadbed drainage ditches, drain dips, and culverts shall be functional when needed during operations and upon completion of operations.

(5) Snow removal shall be controlled to identify the usable traveled way having roadbed support. Over-width plowing shall be reshaped as necessary to define the usable width.

(6) Drainage holes shall be constructed at agreed locations in the snow berm or dike during snow removal operations. Drainage holes shall be maintained as necessary for functional drainage.

(7) When shown in C(T)5.12# or the Road Rules document, roads shall be effectively closed to wheeled vehicles at times and in the manner specified.

(8) Upon seasonal completion of Purchaser's Operations, the road shall be effectively blocked by a snow barricade, unless otherwise agreed.

(9) Snow markers shall be placed to identify effective roadbed width, cattleguards and other structures. The roadbed snow markers shall be spaced at a 200 foot (61m) interval, unless agreed otherwise.

SECTION T-803A - SNOW REMOVAL CONTINUED (02/04/2002)

(10) Snow shall be removed for either public access or project use as shown in the Road Listing Schedule to meet the following requirements:

(a) Removal for Public Access (Method JU) - Snow shall be removed from all of the traveled way, including turnouts, for safe and efficient use for both timber transportation and the public. Intruding windfalls, debris, or slough and slide material shall be removed for the full width of the traveled way and be disposed of out of drainages at agreed upon locations.

(b) Removal for Project Use (Method TS) - Snow shall be removed from all of the traveled way, including sufficient turnouts for safe and efficient use for both timber transportation and Forest Service administration. Intruding windfalls, debris or slough and slide material shall be removed for the full width of the traveled way and be disposed of out of drainages at agreed locations.

(11) Upon notice Purchaser shall replace in kind, within 60 days after June 1 of each year, any surfacing material which has been bladed off the road, unless otherwise agreed. Forest Service will notify Purchaser in writing the cubic yard (cubic meter) equivalent of bladed off material.

(12) Under Public Access (Method JU) roads should be plowed when the cumulative depth of snow and/or ice exceeds 4 inches (100mm) above the road surface. Project Use (Method TS) roads should be plowed when the cumulative depth of snow and/or ice exceeds 6 inches (150mm) above the road surface.

(13) Cattleguard object markers that swing, shall be either removed or locked down in a horizontal direction before snow plowing begins and shall be reinstalled or unlocked prior to June 1 of each year.

(14) Purchaser may remove cattleguard wings on (Method TS) roads to prevent damage during snow plowing. If they are removed, the edge of the cattleguard decks shall be identified. Wings shall be re-installed by June 1 of each year.

3. EQUIPMENT

Purchaser may use any type of equipment to remove snow, providing:

a. Type or use of equipment is not restricted in the C(T)5.12# or the Road Rules document.

b. Equipment is of the size and type commonly used to remove snow and will not cause damage to the road.

c. The use of dozers to remove snow requires written approval by the Sale Administrator (SA) or Maintenance Engineer Representative (MER). Dozers shall be equipped with shoes or runners to keep the dozer blade a minimum of 2 inches (50mm) above the road surface, unless agreed otherwise.

4. ICE CONTROL

Ice control may be performed by Purchaser when approved in writing by SA or MER. Such approval will include ice control materials, application rates, and any specific requirements of use.

SECTION T-811A - SURFACE BLADING AND SHAPING (02/04/2002)

1. DESCRIPTION OF WORK

This work consists of prehaul, recurrent, and post haul surface blading and shaping to provide safe travel for low clearance vehicles, to protect adjacent resource values and road investments, and to prevent damage to roads during use by Purchaser.

2. MAINTENANCE REQUIREMENTS

a. Timing

Prehaul surface blading and shaping prior to haul or after a period of inactivity shall be performed unless the road already meets the requirements stated in the description of work and the maintenance level shown in the Road Listing Schedule. During haul and after haul is completed additional surface blading and shaping may be necessary to ensure the road meets these requirements.

b. Blading and Shaping

(1) The traveled way and shoulders, including turnouts, shall be bladed and shaped to produce a surface which is uniform, consistent to grade, and cross-sloped as indicated by the character of the surface to at least 1/2 inch per foot (40mm per meter) of width. Aggregate shall be thoroughly loosened to the depth of potholes or corrugations. Do not scarify deep enough to cause contamination of the surfacing.

(2) When necessary to prevent aggregate segregation and for compaction, water shall be applied in accordance with the Road Maintenance Specification, T-891A Water Supply and Watering, during surface blading operations.

(3) Existing native or aggregate surfaced drainage dips shall be shaped to divert surface runoff to existing outlet

(4) Aggregate surfacing shall be protected and thoroughly mixed during blading and shaping operations.

(5) Roadway back slope shall not be undercut.

(6) Upon completion of surface blading and shaping, no disturbed rock shall protrude more than 2 inches (50mm) above the adjacent surface unless otherwise provided in the contract. Remove and place outside the roadbed material not meeting those dimension so as not to obstruct drainage ways or structures. This material may be scattered off the roadbed if there is free drainage.

SECTION T-811A - SURFACE BLADING AND SHAPING (Continued)

(7) Roadbed width in excess of the specified dimension shall be shaped to provide drainage away from the traveled way.

c. Compaction

Compaction shall commence immediately following blading and shaping operations and shall be performed by one of the following methods included in the Road Listing Schedule.

Compaction Method A: By breaking tracks while operating hauling equipment on the traveled way so the full width is covered a minimum of 2 times.

Compaction Method B: By operating an 8-10 ton (7-9 metric ton) pneumatic, steel or equivalent vibrating roller on the traveled way so the full width is covered a minimum of 2 times.

d. Intersections

(1)At intersections, the roadbeds of side roads, which are not closed or restricted from vehicular use, shall be bladed to assure a smooth transition.

(2)Field evidence of closure or restrictions shall be considered to be signing, cross ditching in the road surface (traveled way), earth berms, or other devices placed to discourage or eliminate use by low clearance vehicles.

e. Cleaning of Structures

Excess materials resulting from blading and shaping operations shall not be allowed to remain on or in structures (i.e. bridges, culverts, cattle guards, or drainage dips).

f. Berms

Existing drainage berms shall be maintained to the condition of adjacent segments. New berms (windrows) shall not be created.

g. Smooth Blading

If agreed to by the Forest Service, in writing, smooth blading may be used as an interim measure to remove loose surfacing materials from the wheel paths and store removed materials in a recoverable windrow until blade processing is feasible.

(1) Watering will not be required for smooth blading. Accomplish smooth blading without distorting the existing cross-slope or crown of the traveled way.

SECTION T-811A - SURFACE BLADING AND SHAPING (Continued)

(2) Loose surfacing materials shall be removed and stored on the high side of the road except in crowned sections where the material may be stored on either side. Stored materials shall be placed to provide not less than 11 feet (3.4m) of smoothed traveled way on one-segments or 20 feet (6m) of smoothed traveled way on two-lane or segments with turnouts.

(3) Cut holes through windrows, which may collect water on the road, for drainage at least every 500 feet (150m). Do not block open intersections with windrows.

(4) Windrows formed by smooth blading shall be removed and the materials incorporated into the traveled way surface by blade processing at the start of seasonal rain or runoff periods.

SECTION T-812A - DUST ABATEMENT (02/04/2002)

1. DESCRIPTION OF WORK

This work consists of prehaul and recurrent abatement of dust, as required by the Road Rules, to provide safe travel for low and/or high clearance vehicles, to protect adjacent resource values and road investments, and to prevent damage to roads during use by Purchaser.

2. MATERIALS

The dust abatement materials shall be as shown in the Road Listing Schedule unless shown as Option (OPT) for Purchaser's election from the following materials.

a. Water (H_20) for dust abatement shall comply with the Road Maintenance Specification T-891A Water Supply and Watering.

b. Lignin Sulfonate (LIG S) shall be the chemical residue produced as a by-product of the acid sulfite pulping process, and supplied as a water solution. The base solution shall be ammonia, calcium, or sodium and shall be water soluble to allow field dilution. Purchaser shall provide certification that:

(1) Solids determination has been made in accordance with the modified Technical Association of the Pulp and Paper Industry Standard T629-M53 or by a specific gravity/percent solid versus temperature graph that correlates with the Standard.

(2) The pH of the delivered material is at 4.5 minimum as determined by AASHTO-T200.

c. Magnesium Chloride (MGCL2) shall be the liquid residue of evaporative mineral recovery processes. Purchaser shall provide certification that:

(1) The chemical analysis meets the following requirements:

Chemical	Percent by Weight of Brine
Magnesium (Mg)	7.0 minimum
Chloride (C12)	20.4 minimum
Sulfate (SO4)	3.5 maximum
Nitrate	5.0 maximum

The pH shall be between 4.5 and 10.0

(2) Solids determination shall be made from suppliers provided graph of specific gravity/percent solids versus temperature.

d. Petroleum derivatives shall be used in accordance with the Road Maintenance Specification, T- 892A Dust Abatement with Bituminous Products.

Changes in dust abatement materials shown in the Road Listing Schedule to meet on the ground conditions, requires Forest Service written approval.

SECTION T-812A - DUST ABATEMENT (Continued)

3. SPECIAL METHODS

Special methods may be used for abating dust in lieu of commercial dust palliatives or water shown in the Road Listing Schedule if approved in writing prior to use by Forest Service. Special methods may include: reducing the number of loads hauled per day; changing the time of day loads are hauled; reduce speed; or other options that will reduce or eliminate the need for dust abatement.

4. EQUIPMENT

a. Equipment used for spreading dust abatement materials shall be designed, equipped, maintained, and operated so that the material is uniformly applied at rate and traveled way width shown in the Road Listing Schedule.

b. Dilution of dust abatement materials shall be accomplished within the application vehicle. The water sources shall be protected from contamination.

5. MAINTENANCE REQUIREMENTS

a. Prior to beginning haul or resuming haul after a period of inactivity and during haul, dust shall be abated by using commercial dust palliatives, water, or special methods to meet the requirements stated in the description of work and Road Listing Schedule. Dust shall be abated at times and conditions specified in the Road Rules.

b. Application of dust abatement materials or special methods shall control dust to prevent loss of road materials and so vehicles using the road are visible within the stopping sight distance. The average safe user speed for that section of road shall be used to determine the stopping sight distance.

c. Water application shall be varied as needed but shall be low enough to avoid forming rivulets. Frequency of applications shall be sufficient to accomplish the abatement without saturating and softening the traveled way. Compacted or glazed road surface or wheel tracks shall be loosened as needed for water penetration.

d. Commercial dust palliative application shall be varied as needed to accomplish the abatement without causing puddles or runoff and at times agreed by Forest Service. The Road Listing Schedule shows the expected average application rate which may be varied by agreement to meet field conditions. The commercial dust palliative shall not be applied when it is raining or expected to rain, on or across bridges, or in a manner that spatters adjacent trees or other structures. The traveled way surface shall be lightly bladed and rolled with a smooth-wheeled roller immediately before application. The top inch (25mm) of the surface shall be slightly damp.

SECTION T-812A – DUST ABATEMENT (CONTINUED)

(1) Lignin Sulfonate rates of application are **1st 0.35** or **2nd 0.25** gallons per square yard of undiluted product at 50 percent solids or per manufacturer's recommendation as agreed to in writing by the Forest Service.

(2) Magnesium Chloride rates of application shall be per manufacturer's recommendation as agreed to in writing by the Forest Service.

SECTION T-839A - MAINTENANCE FOR PROJECT USE (02/04/2002)

1. DESCRIPTION OF WORK

This work consists of prehaul, recurrent, and post haul maintenance activities to provide safe travel for high clearance vehicles, to protect adjacent resource values and road investments, to prevent damage to roads during use, to store roads needed for future management activities, and to decommission roads that will no longer be needed.

2. MAINTENANCE REQUIREMENT

a. **Prehaul Activities.**

Prior to beginning haul or resuming haul after a period of inactivity Purchaser shall:

(1) Improve existing road junctions to provide adequate vehicle access. Remove any traffic barriers (i.e., logs, stumps, rocks, cross ditches, waterbars) as agreed by Forest Service.

(2) Reshape traveled way cross-slope, including turnouts and curve widening, and other areas necessary for safe travel and functional drainage. Aggregate surfacing materials are to be thoroughly loosened to the depth of ruts, potholes, or corrugations prior to blading and shaping

(3) Remove, re-position, or ramp over slough and slides to provide an adequate width of traffic supporting traveled way. Dispose excess material at designated sites.

(4) Ramp both ends of slumps on native surfaced roads into undisturbed material to maintain adequate width of safe traffic supporting traveled way. Slumps on aggregate surfaced roads are to be treated as agreed in writing by the Forest Service.

(5) Drainage is to be provided above slumps and all cracks are to be sealed. An adequate width of traffic supporting traveled way around a slump or crack area is to be provided unless there is written agreement to treat the roadway deficiency differently.

(6) Remove trees, brush, down logs, rocks and other debris from traveled way and other areas to provide adequate width, sight distance and overhead clearance. Trees and down logs outside the Sale Area that meet utilization standards in A(T)2 shall, when agreed to, be Included Timber subject to requirements of B(T)2.2. No object extending over 4 inches (100mm) above the road surface shall remain within the traveled way width specified in the Road Listing Schedule and usable turnout widths. Center the usable width on the roadbed or position away from the fill slope. Remove encroaching limbs to a height of 16 feet (5m) above the traveled way surface. Tree limbs shall be trimmed as near flush with the trunk as practicable. Scatter material not meeting utilization standards outside and below the roadbed on the fill side.

SECTION T-839A - MAINTENANCE FOR PROJECT USE (Continued)

(7) Ditches, catch basins, drain dips, waterbars, and outlet channels shall be cleaned and/or reconditioned by removing rock, soil, wood, and other materials as necessary to provide functional drainage. Back-slopes shall not be undercut. Suitable material may be blended into existing native or grid-rolled aggregate surface and shoulder. Material shall not contaminate crushed aggregate surface and shoulder.

(8) Culverts shall be cleaned and/or reconditioned by removing rock, soil, wood and other material necessary to provide functional drainage. Reconditioning of culvert inlet or outlet shall be by field methods such as jacking out or cutting away damaged metal which obstructs flow. Cut edges shall be treated with a zinc-rich coating. Hydraulic flushing of drainage structures will not be allowed unless approved in writing.

(9) Installing Purchaser-furnished culverts or other agreed temporary drainage structures for shallow stream crossing.

(10) All excess material (woody debris, rocks, soil, or other materials) removed during pre-haul activities shall be hauled and placed in areas as staked by the Forest Service and shown on the Sale Area Map with a symbol D.

b. Recurrent Activities.

During haul Purchaser shall:

(1) Remove brush, fallen logs, rocks, and other debris from traveled way and other areas necessary to maintain adequate width, sight distance and overhead clearance.

(2) Remove, re-position, or ramp over slough and slides to maintain adequate width of safe traffic supporting traveled way. Dispose excess material at designated sites.

(3) Ramp both ends of slumps on native surfaced roads into undisturbed material to maintain adequate width of safe traffic supporting traveled way. Slumps on aggregate surfaced roads are to be treated as agreed in writing by Forest Service.

(4) Maintain traveled way cross-slope and other areas necessary for safe travel and functional drainage.

(5) Maintain all drainage structures to provide for functional drainage.

(6) Seasonally at the end of hauling, or prior to entering a period of extended inactivity, maintain traveled way cross-slope for functional drainage, re-install removed cross ditches and waterbars, construct additional cross ditches and waterbars as necessary to offset changes through use and maintenance, and replace or construct traffic barriers at road junctions. All drainage and barrier work shall be completed in accordance with the typical details approved by the Forest Service. The location of new barriers, cross ditches, and waterbars shall be designated on the ground,

unless otherwise agreed. Purchaser-installed temporary structures shall be removed, unless otherwise agreed and associated commercially-obtained materials shall remain the property of the Purchaser.

(7) All excess material (woody debris, rock, soil, or other materials) removed during recurrent activities shall be hauled and placed in areas as staked by the Forest Service and shown on the Sale Area Map with a symbol D.

c. Post-Haul Activities.

After haul is completed Purchaser shall:

(1) Reshape the traveled way cross-slope of roads that are to left open to provide for functional drainage and safety for planned traffic. Restore or prepare roadways that are to be closed or decommissioned, so they are self-maintaining and are left in a condition to effectively reduce or eliminate erosion during the closure period. Reshape improved road entrances and replace or construct traffic barriers at locations designated by the Forest Service.

(2) Clean all drainage structures (culverts, waterbars, drain dips, ditches, side ditches, etc.) and construct additional cross ditches, waterbars, or side ditches to provide for functional drainage. Drainage structures located in through fills and natural watercourses shall be fully functional without obstructions, including inlet and outlet channel within 20 feet (6m) of the structure. Slides and slough may be left in place provided they do not restrict safe travel, potentially impound water, and/or divert water from stream courses. The location of new cross ditches and waterbars shall be designated on the ground, unless otherwise agreed. Purchaser-installed temporary structures shall be removed, unless otherwise agreed and associated commercially-obtained materials shall remain the property of the Purchaser.

(3) Furnish and apply seed, fertilizer, mulch, and/or remove and replant designated trees or other woody plant materials, singularly or in specified combinations to roadway, borrow areas, rock sources, and disposal areas. The work area may be limited to designated portions of the roadway and roadside or include treatment of the entire area bounded by the outer limits of disturbed areas. The designated treatment shall be scheduled to begin upon completion of the other work under this contract and shall be applied only when the ground is suitable for treatment. Compacted roadbed shall be scarified to a minimum depth of 4 inches (100mm) unless bedrock is encountered at a lesser depth. Application of seed, fertilizer, and mulch shall be terminated during periods when there is too much wind to allow consistent treatment and control. Materials and application rates shall be as follows:

Seed: Grass, forbs, or small shrub seeds shall be packaged separately from fertilizer and contain the designated types of seed for application at the designated rates. When legumes are designated, the seed shall be pre-inoculated prior to application. Furnish seed separately or in mixture in standard containers with (1) seed name; (2) lot number; (3) net weight; (4) percentages of purity and of germination (in cases of legumes, percentage of

SECTION T-839A - MAINTENANCE FOR PROJECT USE (Continued)

germination to include hard seed), and (5) percentage of maximum weed seed content clearly marked for each kind of seed; (6) certification that the seed lot meets applicable State and Federal laws with regard to prohibited and restricted noxious weeds clearly marked for each kind of seed. Furnish the Government duplicate signed copies of a certificate signed by a Registered Seed Technologist or Seed Analyst (certified through either the Association of Official Seed Analysts or the Society of Commercial Seed Technologists) certifying that each lot of seed has been tested in accordance with the Association of Official Seed Analysts standards within 12 months prior to the date of application. This certification shall include (1) name and address of laboratory, (2) date of test, (3) lot number for each kind of seed, (4) name of seed, (5) percentage of germination, (6) percentage of purity, (7) percentage of weed content, (8) certification that the seed lot meets applicable State and Federal laws with regard to prohibited and restricted noxious weeds, and (9) in the case of a mixture, the proportions of each kind of seed. Legume seed shall be inoculated with approved cultures in accordance with the instructions of the manufacturer. No seed may be applied without prior written approval.

Seed Type and Lbs/Acre	% of Pure Live Seed
N/A	N/A

Fertilizer: Fertilizer shall be standard commercial grade and provide the minimum percentage of available nutrients designated.

% Nitrogen	% Phosphorous	% Potassium	% Sulfur
N/A	*N/A*	N/A	N/A

Fertilizer shall be furnished in sealed containers with the composition, weight, and guaranteed analysis of contents clearly marked. Application shall be at the rate of **N/A** pounds per acre (N/A kg/ha).

Mulch: Mulch materials and application rate shall be as shown below:

Mulch Type	Application Rate
N/A	N/A

SECTION T-839A - MAINTENANCE FOR PROJECT USE (Continued)

Straw mulch shall be from grain crops and grass hay shall be from approved herbaceous mowing. All mulch furnished shall be free of Oregon state designated noxious weeds. Forest Service shall be furnished a copy of a statement from the Purchaser, certifying that each load of mulch has been checked by a state or county recognized individual and contains no Oregon State designated noxious weeds.

Plantings:

Forest Service will identify suitable tree spade plant stock to be removed from areas adjacent to the project upon 10 days notice during the scheduled timing for removal and replanting.

(4) Traffic barriers to be replaced or constructed shall be shown in the Road Listing Schedule, and conform to the attached typical details unless otherwise agreed.

(5) Install barrier upon completion of all contract provisions tributary to the road and agreed to by the SA or MER.

SPECIAL T-854-A HAZARD TREATMENT AND CLEANUP (8/03)

854.01
Description

This work consists of treatment and disposal of marked hazards such as danger trees, rocks, and stumps.

854.02
Maintenance Requirements

A. Treatment of trees includes the felling and subsequent handling of danger trees designated by the Government. Designated trees are marked with paint at breast height.

1. Fall dangerous, or unstable live trees, outside the roadway, which are tall enough to reach the roadbed when marked by the Government. Stump heights must not exceed 12 inches (304.8 mm), or 1/3 the stump diameter, whichever is greater, measured on the side adjacent to the highest ground.

2. Limb trees and snags felled away from, and at right angles to, the road center line and resting entirely beyond the roadside limits of 5 feet (1.5 meters) beyond roadway slopes to provide ground contact over two-thirds (2/3) or more of its length. When the ground contact condition cannot be met, additional bucking will be done to achieve the two-thirds (2/3) contact control. Limb and buck trees and snags falling cross slope into manageable lengths, and reorient at right angles to the road centerline.

3. Limb, buck, and deck trees or snags falling into the roadway, and move to sites off the roadbed. Scatter limbs beyond the top of the cut or toe of the fill.

4. All materials remain the property of the Government unless otherwise provided in the contract or agreed to.

5. Woody debris and slash in excess of 12 inches (304.8 mm) in length, or 3 inches (76.2 mm) in diameter, shall not remain in ditches, drainage channels, or on back slopes, traveled way, shoulders, or turnouts. Hand pile or scatter, materials, down slope from the roadbed, avoiding any concentrations or drainages.

B. Remove marked rocks and stumps.

1. Backfill resulting holes outside the roadbed with native materials and mounded to drain after settlement.

2. Haul removed rocks and stumps to the disposal site designated in the contract.

SECTION T-891A - WATER SUPPLY AND WATERING (02/04/2002)

1. DESCRIPTION OF WORK

This work consists of providing facilities to furnish an adequate water supply, hauling, and applying water for surface blading and shaping, dust abatement, and surfacing of roads as necessary to provide safe travel for low and/or high clearance vehicles; to protect adjacent resource values and road investments; and to prevent damage to roads during use by Purchaser.

2. MATERIALS

Suitable and adequate water sources and use restrictions are shown on the Sale Area Map with a W. If the Purchaser elects to provide water from other than the designated source, Purchaser shall be responsible to obtain the right to use the water and pay any royalty involved. Forest Service shall be furnished a copy of any agreement obtained by the Purchaser.

3. EQUIPMENT

a. Mobile watering equipment shall have water tight tanks of known capacity when used for mixing dust abatement materials. The tank capacity shall be measured prior to use.

b. An air gap, or positive anti-siphon device, shall be provided between the water source and the vehicle being loaded if: (1) the vehicle has been used for other than water haul, (2) the source is a domestic potable water supply, (3) or the water is used for tank mixing with any other materials.

c. Designated water sources may require some work prior to their use. Such work may include cleaning ponding areas, installing temporary weirs or sandbags, pipe repair, pump installation or other items appropriate to Purchaser's operation. Flowing streams may be sandbagged on a temporary basis or a weir placed to pond the water. Water draw shall not be more than 1/3 of the stream flow. Pumping shall not result in no or negligible stream flow below site. Work within flowing streams will require review and approval by a Forest Service Fish or Hydrology Specialist.

d. Foot valves on pumps will be screened with screens that meet National Marine Fishery Services standards. NMFS developed criteria for pump intake screens will be used on all water pump intakes as described in the "Addendum, Juvenile Fish Screen Criteria For Pump Intakes" (NMFS, May 9, 1996).

Intake hose screen mesh openings shall not exceed 3/32 inch (2.29mm) woven wire or perforated plate screens, or 0.0689 inch (1.75mm) for profile wire screens, with a minimum 27% open area. If fry size salmonids are never present at the site, screen size opening shall not exceed ¼ inch (6.35mm) for woven wire, perforated plate screens, or profile wire screens, with a minimum of 40% open area.

Trucks will be maintained to prevent oil leaks. Loading is done in a manner to prevent overflowing and discharge of wash into stream.

Standard operating practice shall be to protect the stream bank, riparian area, and provide maintenance for the access road.

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENTS (7/2001)

Column No.	**Heading**	**Entry**	**EXPLANATION**
	Any	Blank	Except as otherwise described, no entry indicates Purchaser is not authorized or required to perform the work item(s).
	Any	RC	This work requirement applies only when haul of sale related construction materials occurs.
2	Special Project Specification	Number	Entry indicates Special Project Specification which applies.
3	Travel Way	EX	Purchaser shall maintain the traveled way to the width existing upon entry, or at the completion of Specified Road work.
		Numbers	Purchaser shall maintain the traveled way to the standard width indicated by the entry, plus curve widening, in accordance with Section T-811. If required, the road template shall be shaped to this width and to the designated cross slope before haul and during recurring maintenance.
		IS, C, OS, F, or AI	Cross slopes are designated as: IS (Inslope), C (Crown), OS (Outslope), F (Flat), AI (As Is).
		A or B	If compaction is required.
4	Brush and Log Out	Numeric & R and or L	Purchaser shall remove brush for specified width on either or both the right (R) side or left (L) side of road.
		As Staked	Limits of brushing are as staked or marked in the field.
		OPT	Purchaser may use hand or mechanical means of brushing.
		H	Only hand brushing may be used.

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENTS (7/2001)

Column No.	**Heading**	**Entry**	*Explanation*
5	Surfacing	Aggregate Grading	Purchaser shall place surfacing on roads listed according to the grading indicated.
6	Dust Abatement	OPT	Product selection is Purchaser's choice from those listed in Section T-812.
		Product Abbr.	Unless otherwise agreed, Purchaser is restricted to product listed corresponding to the abbreviation shown in Section T-812; (i.e., LigS = Lignon Sulfonate) Application rates are estimated amounts.
		EX	Purchaser shall abate dust on the existing width
		Numbers	Purchaser shall abate dust to the width indicated by entry.
7	Seasonal Maintenance	W	Waterbars and/or crossditching shall be required prior to expected seasonal precipitation.
		B	Entrance barriers shall be installed by Purchaser prior to nonuse periods.
8	Snow Removal	TS	Snowplowing authorized for Purchaser's Operations without recreation access being provided per Section T-803 requirements.
		JU	Snowplowing authorized, but must provide for recreation joint use per Section T-803 requirements.
		Blank	Snowplowing is not authorized. Forest Service may authorize plowing by permit when not in conflict with other uses.
9	Post Haul	PR	PR denotes that work is Purchaser's Responsibility to perform.